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Beyond Time: Temporal and Extra-temporal Functions of
Tense and Aspect Marking in Totela, a Bantu Language of Zambia

by

Thera Marie Crane

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

Linguistics

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor Larry Hyman, Co-Chair
Professor Lynn Nichols, Co-Chair
Professor Line Mikkelsen
Professor Alan Timberlake

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Beyond Time: Temporal and Extra-temporal Functions of Tense and Aspect Marking in Totela, a Bantu Language of Zambia

Abstract

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Professor Larry Hyman, Co-Chair
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This dissertation aims to characterize the relationship between the temporal and information-structuring functions of tense and aspect marking in Totela, an endangered Bantu language of Zambia and Namibia. To that end, I investigate and describe in detail the semantics and pragmatics of selected tense and aspect markers, showing for each that a purely temporal description is inadequate to explain its range of interpretations and uses.

Totela is a typical Bantu language in that it has a vast array of morphemes and constructions to express tense and aspect contrasts. A more explanatory and unified analysis of these forms emerges when not only their temporal semantics, but also their discourse-structuring functions are taken into account. Often, pragmatic functions appear to trump temporal specifications.

Privileged distinctions in Totela include (non-)completion of a situation's nucleus (i.e. the termination of an action or state, or point of transition to a result state for inchoative eventualities) (cf. Kershner 2002), cognitive and temporal dissociation (cf. Botne & Kershner 2008), and relevance (cf. Portner 2003). I argue that these categories, rather than traditional notions such as past vs. present tense, or imperfective vs. perfective aspect, are basic in Totela's tense and aspect system.

Investigations of the above-mentioned categories also reveal strong discourse-structuring functions for each. For example, markers of nuclear completion occur predictably at episode boundaries in narrative. Markers associated with non-completion, in contrast, occur when the narrative structure is interrupted (e.g. by a song) at a point that is not an episode boundary. Non-completive forms also serve to shift between narrative-internal and narrative-external perspectives. Findings regarding the use of tense and aspect markers to structure narrative are confirmed by quantitative analysis using logistic regression.

Of particular theoretical interest is the -*ite* suffix, which shows evidence of being primarily a marker indicating relevance to answering the question under discussion in the current

discourse context (cf. Roberts 1998). Its temporal interpretations are determined pragmatically, based on which phase of a situation's event structure is understood as most relevant to answering the question under discussion.

Results are situated both synchronically and diachronically, in order to develop hypotheses about the historical pathways of the markers within Bantu (cf. Bybee *et al.* 1994). Cross-linguistic comparison of Totela and related languages suggests that while morphological expression of tense and aspect categories may change rapidly, as may semantic and pragmatic particularities within categories, the basic categories of completion vs. non-completion of the situation's nucleus, association vs. dissociation, and discourse relevance are prevalent. These categories are likely crucial in the analysis of many other Bantu languages, as well, but have been given relatively little attention in the literature.

This dissertation offers both basic descriptive facts about the Totela language and a detailed investigation of facets of its tense/aspect system. It is intended to be of interest for semanticist and pragmaticists, as well as for use in studies in Bantu and general typological linguistics.

To Kelvin
and
Mboshela

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On a personal level, I have been held up throughout my graduate career by my friends

Contents

Glosses Used

Gloss	Meaning
1	FIRST PERSON
2	SECOND PERSON
3	THIRD PERSON
ADV	ADVERBIAL
APPL	APPLICATIVE
AUG	AUGMENT
CAUS	CAUSATIVE
CL1	NOUN CLASS 1
CL1A	NOUN CLASS 1A
CMPL	COMPLETIVE (refers to nuclear completion)
COM	COMITATIVE ('with'/'and')
COMP	COMPLEMENTIZER
COND	CONDITIONAL
COP	COPULAR
COUNTER	COUNTERFACTUAL
DEM	DISTAL
DM	DISCOURSE MARKER
FUT	FUTURE
FV	FINAL VOWEL
H	HIGH TONE
HAB	HABITUAL
HOD	HODIERNAL
IMP	IMPERATIVE
INF	INFINITIVE
INTENS	INTENSIVE
INTERJ	INTERJECTION
IPFV	IMPERFECTIVE
ITER	ITERATIVE
LOC	LOCATIVE
NARR	NARRATIVE MORPHOLOGY
NEG	NEGATIVE
NEUT	NEUTER
NONCMPL	NON-COMPLETIVE
OM	OBJECT MARKER
PART	DISCOURSE PARTICLE
PASS	PASSIVE
PRON	PRONOUN
PST	PAST
RC	RELATIVE CLAUSE
RECIP	RECIPROCAL
REDUP	REDUPLICATED FORM
REVERS	REVERSIVE
SBJV	SUBJUNCTIVE
SG	SINGULAR
SIT	SITUATIVE (PARTICIPIAL)
SM	SUBJECT MARKER
STAT	STATIVE/STATIVIZER
V	VERB (with noun/verb ambiguity in translation)

Chapter 1

Introduction and Background

1.1 Introduction

It is increasingly accepted that tense and aspect marking, in addition to its time-orienting properties, has strong discourse/information-structuring functions (see e.g. Hopper 1979a; Fleischman 1990, and many others). In fact, tense and aspect systems cannot be adequately understood without examination of their pragmatic uses within discourse; these often shed light on their temporal functions, as well. While many steps have been taken towards this kind of understanding of tense and aspect marking in well-studied languages such as English, very few studies have provided in-depth, context-based examinations of similar phenomena in Bantu languages, which have been said to have "the most complex TMA systems in general" (Dahl 1985:185) .

Totela is an undescribed, highly endangered Bantu language spoken in parts of Zambia and Namibia. It has a complex tense and aspect system that distinguishes temporal distance and a number of other temporal and extra-temporal relationships. This study provides a detailed description of the semantics and pragmatics of selected tense and aspect markers in the Zambian variety of Totela, examining their temporal functions, as well as the functions that go "beyond time". Supplementary data from Namibian Totela are also considered. The study is based on elicitation and naturalistic observation in conjunction with the analysis of verb use in recorded oral texts from various genres, traditional narrative in particular. The results, which strongly suggest that discourse-structuring functions are a basic facet of the markers' nature, are situated both synchronically, through comparison to similar functions in other languages, and historically, with an eye to Proto-Bantu reconstructions and their present-day Bantu reflexes.

1.2 Theoretical background and motivation

1.2.1 Pragmatics and Information Structure

1.2.1.1 Pragmatics: a brief introduction and history

Pragmatics, loosely speaking, is the study of what is communicated beyond the truth-conditional (semantic) meaning of an utterance, and of how it is communicated. In everyday conversation, myriad meanings, desires, requests, attitudes, and beliefs are communicated without being literally said. Pragmatic inferencing is involved in any communicative content requiring context for its interpretation, from simple pronoun deixis (e.g. *you* and *I*) to complex conversational implicatures. The study of pragmatics deals with all areas of non truth-conditional meaning, including presupposition, implicature (and its mechanisms), deixis, definiteness, reference, and speech acts. Pragmatics also deals with discourse-structuring phenomena such as foregrounding and backgrounding, and the marking of narrative structure.[1]

The first formal study of pragmatics came with Morris (1938) and his theory of the relation of signs. SEMANTICS relates signs to their meaning; SYNTAX involves the formal relation of signs to other signs. PRAGMATICS is the relationship between signs and their "users and interpreters", completing the triad that allows for the communication of meaning. (Morris 1938, discussed in Horn & Ward 2004) The study of pragmatics gained a firm hold in mainstream linguistics with the widespread underground circulation of "Logic and Conversation" and other lectures on pragmatics given in 1967 by H. Grice, published, much later, in various editions (e.g. Grice 1989). Grice's maxims of QUANTITY, QUALITY, RELATION, and MANNER – all falling under a "supermaxim" of cooperative conversation[2] – attempted to provide an explanatory mechanism for the communication of non-explicit meaning.

Since that time, approaches to pragmatics and its issues (including its very definition, and the relationship of pragmatics to truth-conditional semantics)[3] have been many and varied, but mostly focused on the utterance and its interpretations. As late as 1999, Peccei stated in her introductory textbook that

> the focus of pragmatic analysis is on the meaning of speakers' utterances rather than on the meaning of words or sentences (Peccei 1999:5).

Undoubtedly, Peccei means that pragmatics deals with *what is communicated* beyond the

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[1]An in-depth survey of the field of pragmatics is, sadly, outside the scope of this study, but see e.g. Levinson (1983); Horn & Ward (2004); Kadmon (2001); Burton-Roberts (2007), among many others.

[2]Grice's COOPERATIVE PRINCIPLE:

> make your conversation contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged (Grice 1989:45).

[3]For a taste of the debate about what comprises pragmatic vs. semantic content (i.e. "the content/context division" (Atlas 2004:51), and to what extent pragmatic interpretation may affect truth-conditional meaning, see Bach (1994, 2007); Atlas (2004); Levinson (1983); Horn (2004) and many others. In this study, a basic definition of pragmatics as *non truth-conditional meaning* is adopted.

denotative meaning of *what is said*. Still, a focus on the *utterance* as the smallest pragmatic unit results in the loss of some of pragmatics' most important insights: not only utterances, but also syntactic structure, intonation, and even word and morpheme choice, may be intimately connected to pragmatic content. Green (2004) puts the case strongly:

> Many or most of the constraints that have been proposed by generative grammarians... must either be stated in ultimately pragmatic terms or describe constructions whose use conveys pragmatic information about the beliefs of the speaker – beliefs about the world (presuppositions), about the propositional attitudes of the addressee, or about the structure of the ongoing discourse (Green 2004:407).

The realization that pragmatics are crucial below the utterance level led to the development of fields such as LEXICAL PRAGMATICS (see e.g. Blutner 2004), as well as attempts to situate pragmatics in a formalism similar to those used for semantic analysis (e.g. Kadmon 2001).

The reach of pragmatics extends not only to words and syntactic structures, but also to individual morphemes. Verschueren (1978:3) observes that both derivational and inflectional morphology are subject to pragmatic constraints; for example, only positive terms seem to be able to be negated by *un-*: *unhappy* but #*unsad*, *unusual* but #*unstrange*, and so forth. Green (2004:408-409) cites numerous studies showing that "so-called 'meaningless' discourse particles" like *um* and *well* in fact have distinct functions that can be characterized in terms of pragmatics. The field of MORPHOPRAGMATICS was developed by Dressler and Merlini Barbaresi to account for interpretations of "semantically empty" Italian interfixes that are nevertheless productive and have pragmatic effects (Dressler & Barbaresi 1986, 1987, 1994, 2001; all discussed in Merlini Barbaresi 2006). Morphopragmatics deals mainly with "evaluative suffixes" such as diminutives and augmentatives, "personal pronouns of address", and honorifics (Merlini Barbaresi 2006:332). All of these are semantically "elusive" and contribute meaning based on context.

For example, Italian diminutives may be characterized as "fictive". Fictives depart "from conventionally accepted standards from meaning" and generate "a frame of personalized values where such standards glide according to the speaker's evaluation" (Merlini Barbaresi 2006:333). Italian diminutives, according to Merlini Barbaresi, imply that the noun to which they attach is in some way "nonserious". There is no place, or need, in this system for the semantic meaning 'small' with the diminutive, or, indeed, for there to be any semantic meaning at all. As an example, Merlini Barbaresi gives the following sentence, in which the diminutive of *firma* 'signature' serves to mitigate a "face-threatening directive act":

(1) ho bisogno   di una sua firm-**etta**,   per   favore
     I   have.need of one your signature-**DIM**, please

     'well now, could you just sign here please?' (Merlini Barbaresi 2006:334, ex. 7)[4]

Merlini Barbaresi notes that even pragmaticists have tended to overlook morphopragmatic effects, due to their focus on the pragmatics of larger speech units such as words and sentences (Merlini Barbaresi 2006:332).

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[4]Larry Hyman (pc) suggests that this form is reminiscent of English 'Can I get a small signature from you right here?'

Following this general direction, I discuss in section 1.2.3 below the possible contributions of pragmatic analysis to understanding the communicative contributions of tense, aspect, and mood marking. First, however, I turn to the notion of INFORMATION STRUCTURE.

1.2.1.2 Information Structure (IS)

The term INFORMATION STRUCTURE (IS) was coined by Halliday (1967) to describe the division and organization of discourse by "information units" – units of discourse distinct from syntactic units and optionally chosen by the speaker (Halliday 1967:200). Generally speaking, information structure refers to speakers' methods of organizing their speech in order to effectively transfer information. IS is pragmatic: as speakers structure their intended communicative content, they take into account context, prior discourse (e.g. whether the information is new or not new to the discourse), and hearer knowledge and beliefs.

By and large, studies of information structure have dealt with sentence-level phenomena such as focus, presupposition, topic/comment structure, and information newness (or givenness).[5] What all of these phenomena have in common is that they involve speaker manipulation of language to fulfill certain goals. With this in mind, Roberts (1998) (a revision of a 1996 article), takes a broader approach to information structure, seeing it as "literally a structure on information – on the inquiry pursued in discourse and the information which that inquiry yields, and not on the utterances used to present it" (Roberts 1998:1). That is, at its most basic level, IS is about communicative strategy, *carried out* by language and discourse organization; not the organization – or information – itself.

Roberts proposes that information structuring in cooperative communication can be viewed as a "game" in which interlocutors work together to answer what Roberts calls THE BIG QUESTION: *"what is the way things are?"* (Roberts 1998:4). Particular conversations

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[5]For a longer description of these phenomena (with references), along with examples from Bantu languages, see Crane (2008), from which much of this introductory discussion is drawn. For an excellent introduction to an analysis of IS in terms of sentence structure, see Lambrecht (1994). Lambrecht emphasizes the importance of an accurate understanding of the interplay of pragmatics and information structure; he distinguishes CONVERSATIONAL (GRICEAN) PRAGMATICS (how meaning may be inferred from sentences within specific contexts) and DISCOURSE PRAGMATICS (pragmatic structuring of content through the use of particular constructions). Only discourse pragmatics is directly related to information structure, which he defines as

> [t]hat component of sentence grammar in which propositions as conceptual representations of states of affairs are paired with lexicogrammatical structures in accordance with the mental states of interlocutors who use and interpret these structures as units of information in given discourse contexts (Lambrecht 1994:5)

That is, a sentence's information structure "is the formal expression of the pragmatic structuring of a proposition in a discourse" (Lambrecht 1994:5).

Although Lambrecht's analysis is at a sentence level, he notes that other fields, such as lexical pragmatics, that is, "the study of the pragmatics of individual lexical items", are information structural "in that the interpretation of sentences containing such expressions is not determined by conversational inferences but by lexical form" (Lambrecht 1994:4). In this study, I remain agnostic about the relationship between conversational and discourse pragmatics, noting that the phenomena discussed here appear to fit under the rubric of discourse pragmatics.

have more constrained DOMAIN GOALS that comprise specific parts of the ultimate goal. Domain goals involve the evaluation of a set of propositions that constitute the IMMEDIATE QUESTION UNDER DISCUSSION or DISCOURSE TOPIC. Each utterance can be understood as a "move" aimed at coming closer to achieving a domain goal, i.e. answering a question raised by the discourse and thereby reducing the CONTEXT SET, or the set of worlds in which the COMMON GROUND – the set of propositions accepted by all interlocutors – holds.

Roberts uses her question-based framework to analyze English prosodic focus and the focus particle *only*, and proposes that this view of IS can be used to deal with many other issues in pragmatics, including implicature, anaphora, and the notion of topic.[6] As noted by Green (2004:408), choices between "truth-conditionally equivalent" alternatives – be they syntactic configurations, aspectual viewpoints, or even "meaningless" discourse particles – are pragmatically based; such decisions are strategically made in the service of conversational goals.

In this study, I follow this view of information structure, which seems to be more comprehensive and explanatory than a purely sentence-level, word-order based approach. Under this view, everything from word choice to syntax may contribute to IS. Tense and aspect marking, discussed below in 1.2.2, have an especially close relationship to communicative strategies: speakers make "viewpoint" choices based on how they wish to portray events. Such choices come across with particular clarity in extended narratives, as discussed in 1.2.5.3 below. In narratives, which are basically monologic in Totela, speakers exploit tense and aspect markers to raise and answer discourse questions.

1.2.2   Tense and aspect

1.2.2.1   Traditional views of tense and aspect

Tense and aspect have been objects of philosophical discussion at least since the time of Aristotle (for a historical review, see Binnick 1991), but it is only more recently that cross-linguistic definitions and generalizations have been attempted.[7] Cross-linguistic studies (e.g. Dahl 1985; Bybee & Dahl 1989) have found that generalizations may indeed be drawn,[8] but the categories themselves remain remarkably difficult to characterize.[9]

The majority of early approaches to analyzing tense and aspect phenomena attempted to describe them in mainly temporal terms, though noting – sometimes almost as an aside – that discourse context has a role in creating aspectual meaning (e.g. Reichenbach 1947).[10]

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[6]Indeed, Büring (2003) employs Roberts' framework in his analysis of contrastive topic.

[7]Aspect, in particular, was late in gaining the attention of "mainstream" linguistics as a separate phenomenon worthy of study (Hopper 1982:3). Among the first major publications dedicated to aspect were Anderson (1973) and Comrie (1976).

[8]Hopper (1982:3) goes as far as to call tense and aspect *categories* – not necessarily their instantiations in particular languages – both "pervasive" and "universal".

[9]This section is meant to give a broad overview of the topic and motivate an information-structural analysis of tense and aspect. Theories related to particular tenses and aspects are discussed more thoroughly in the relevant chapters.

[10]The following discussion offers a broad generalization of several major lines of thinking on temporal

The first major twentieth-century attempt at a formalization of tense theory was Reichenbach (1947), who revolutionized the view of time in language with his ideas of a three-component theory of tense, based on the possible relationships between three points: EVENT POINT (E), REFERENCE POINT (R), and SPEECH POINT (S). Event point is the time at which the event occurred (conceptualized as a point); speech point is, unsurprisingly, the time at which the utterance is made; reference point is not formally defined, but seems to refer to the time of the (cognitive) point of view from which the event is perceived. These points, arranged on a linear representation of time, correspond to the temporal configurations expressed in tense (and aspect, not distinguished here). For example, in the present tense, E, R, and S are equivalent (figure 1.1). In the Simple Past, E and R are simultaneous, but precede S (figure 1.2). In the Past Progressive (what Reichenbach calls the "Simple Past, Extended"), the viewpoint is a longer time spanning R and S, which, again, precede S (figure 1.3). In the Present Perfect ("Anterior"), however, R and S are simultaneous but preceded by E (figure 1.4). All figures shown are adapted from Reichenbach (1947:290).

Present: E, R, S

E, R, S
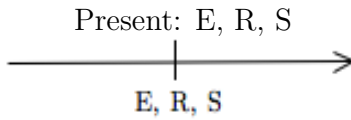
Figure 1.1: Reichenbach's PRESENT schema

Past: E,R < S

E, R   S
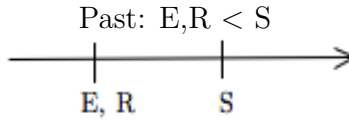
Figure 1.2: Reichenbach's PAST schema

Past Progressive: E, R < S

E   R,S
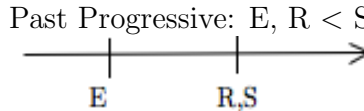
Figure 1.3: Reichenbach's PAST PROGRESSIVE schema

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analyses of tense and aspect. For detailed reviews of various approaches to tense and aspect, two excellent and quite different surveys may be found in Binnick (1991) and Cover (2010).

Present Perfect: E < R, S
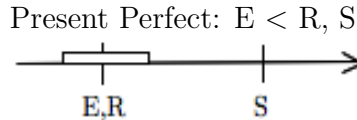
Figure 1.4: Reichenbach's PRESENT PERFECT schema

Two of the most influential more recent theories are Comrie (1976) and Comrie (1985) on aspect and tense, respectively. Many descriptive works of tense and aspect take their working definitions from Comrie's books.[11] Similarly to Reichenbach, Comrie (1985) argues that the universally valid characterization of time is a linear one, with a deictically determined "now" (zero) point. Tense is deictic, usually relating to the speaker's "now". Aspect, on the other hand, is not deictic, but encodes "different ways of viewing the internal temporary constituency of a situation" (Comrie 1976:3).

Smith (1997) disentangles grammatical aspect from inherent, lexical aspect by introducing a two component system: VERB CONSTELLATIONS (=verbs and their arguments) have inherent SITUATION ASPECT (also known as *Aktionsart*, lexical aspect, situation type, etc.; see also the discussion of situation type below in 1.3.2). These comprise Vendler's situation types (ACTIVITIES, ACCOMPLISHMENTS, ACHIEVEMENTS, and STATIVES, plus Smith's addition of SEMELFACTIVES;) and combine with grammatical VIEWPOINT ASPECT to produce temporal meaning in an utterance. As is apparent from her terminology, Smith also defines aspect in terms of viewpoint. For example, perfective viewpoint "present[s] a situation as a whole" (Smith 1997:66), while imperfectives "present part of a situation, with no information about its endpoints (Smith 1997:73).

Klein (1994) argues that all traditional models of tense, aspect, and Aktionsart are problematic and cannot sufficiently account for language data. For example, tense is often construed as the relation of the situation time to the moment of utterance. However, even a simple utterance such as (2) shows that this characterization is not sufficient: it is immensely probable that the situation of Xavier's being dead is not located completely in the past with respect to utterance time, and yet the use of a past tense is completely licit and understandable.

(2)   They found [Xavier] in the bathtub. He **was dead**. (Klein 1994:22)

Similarly, for Klein, characterizations of aspect based on viewpoint are "imprecise", "metaphorical", and ultimately "unsatisfactory" (1994:27-30), and Aktionsart distinctions deny verbs "temporal features which [they] clearly should have. For example, sleeping, though not represented by a telic verb in English, generally has both a beginning point and an endpoint (Klein 1994:30-35).

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[11]For a notable example, see Bybee *et al.* (1994:46), which cites Comrie as a primary source (among several) for tense and aspect definitions. Comrie's work is extremely valuable in drawing attention to the fruitfulness of cross-linguistic studies of tense and aspect, and in developing a framework in which to do so; at the same time, there exists the danger of overfitting data to labels without careful examination of how the tense and aspect system in a particular language actually functions.

To make the fuzzy theories more precise, Klein proposes a neo-Reichenbachian framework that includes the concepts of TOPIC TIME (TT: the time span referred to in the utterance, roughly corresponding to Reichenbach's R), TIME OF UTTERANCE (TU: the time of the speech act; Reichenbach's S), and TIME OF SITUATION (TSit: the time for which the situation refers to holds; Reichenbach's S). TENSE depicts the relationship between TU and TT. For example, the use of a past tense as in (2) indicates that TT, the time span to which the speaker is referring (in this case, the time at which they found poor Xavier), is prior to TU. ASPECT, in contrast, situates TT with respect to TSit. Perfective aspect involves a Topic Time that is "partly included" in the posttime of a situation (figure 1.5); the imperfective places TT completely within the time of the situation (figure 1.6):

$$- - - - - - - - -[- - - - - \quad + + + + + +]+ + + + + + + + + + + +$$

Source State=TSit: Target State:
story being written   story written
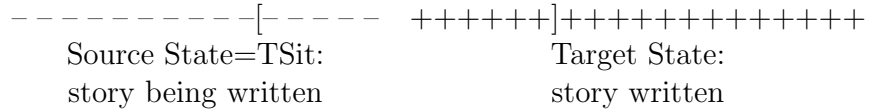
Figure 1.5: Perfective: 'Michael wrote a story'

$$- - - [- - - - - - -] - - - - \quad + + + + + + + + + + + + + + + + + +$$

Source State=TSit: Target State:
story being written   story written
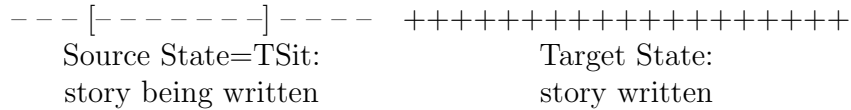
Figure 1.6: Imperfective: 'Michael was writing a story'

Klein defines four major aspectual distinctions as in table 1.1.

TT *is included in* TSit	IMPERFECTIVE
TT *is partly included in* TSit	PERFECTIVE
TT *is after* TSit	PERFECT
TT *is before* TSit	PROSPECTIVE

Table 1.1: Aspect in Klein (1994:108)

So-called "relative tenses" such as the English Perfect can be analyzed as combinations of tense and aspect.

Other definitions of aspect are often less precise, but share similar intuitions about event structure interactions with aspectual marking. Comrie (1976) defines aspect as encoding "different ways of viewing the internal constituency of a situation" (Comrie 1976:3). According to Comrie, PERFECTIVE aspect "views" a situation "as a single whole" (Comrie 1976:16), while imperfective aspect makes "explicit reference to [its] internal temporal structure" (Comrie 1976:24).

As noted above, Smith's (1997) view is similar to that of Comrie in its reference to viewpoint: perfective viewpoint "present[s] a situation as a whole" (Smith 1997:66). Imperfectives "present part of a situation, with no information about its endpoints" (Smith 1997:73).

Generally speaking, the theories of tense and aspect discussed above are based strictly on time relations and their depiction. Such a view, however, is insufficient if one is to fully characterize the complex role of tense and aspect marking within discourse. Section (1.2.2.2) describes a few of the problematic issues in traditional, exclusively time-based views of tense and aspect.

1.2.2.2 Problems with traditional views of tense and aspect

Even at the earliest stages of twentieth-century tense theory, it was apparent that time relations in real languages cannot fully be accounted for in purely temporal terms. Reichenbach (1947:292) notes that natural languages "do not always keep to the schemas given in our tables".

The following list briefly demonstrates problems noted in the literature for the analysis of specific tenses and aspects in a temporal framework.

Present Tense: Even the most basic time distinction – now vs. not-now – is challenged upon examination of actual tense uses. It is a common cross-linguistic tendency to use the present tense to describe past or future actions, as in "narrative" or "historical" present contexts, or with planned futures, as in 'we leave for Antigua next Friday' (e.g. Fleischman 1990; Klein 1994).

Past Tense: As noted above, past tense may be used in many languages to increase politeness or irrealis mood. Klein (1994:136) also discusses what he calls BACKCHECKING, in which past tense is used for a present situation, as in 'Whose pet cockroaches were those again?' Use of past tense as a politeness strategy or for backchecking develops, Fleischman (1989:2) argues, because tenses that describe a time other than now have an inherent nonreality that naturally lends itself to other expressions of irrealis situations and attitudinal or epistemological distancing from the situation under discussion.

Future tense The analysis of future tense is complicated by its inherent uncertainty: it indicates situations that have not yet been realized in the actual world. Comrie (1985), though arguing for the existence of a pure future tense use of *will* in English (cf. 'John'll be getting frozen yogurt right now, if I know him'), notes that it is uncommon across languages to find grammatical forms that clearly refer to future time only, and are not merely a particular function of a more generalized modal category. Levinson (1983:78) adds that attempts to claim that the English Future has the purely deictic, temporal function of its metalinguistic counterpart will be met with "catalogues of insuperable odds" of examples contradicting this view. Modal components of the English Future are evidenced again and again.

Multiple degrees of past/future reference: Bantu languages often have multiple degrees of past and future reference, including distinctions between TODAY PAST, YESTERDAY PAST, FAR PAST, and so on. Some Bantu languages are rigid with respect to time-tense correspondence – a yesterday past can only refer to a situation that occurred yesterday. In other languages, however, tense and topic time have a more flexible relationship, and an "inappropriate" tense may be used to show, for example, subjective distance of the situation from the speaker's current reality (Fleischman 1989:21). In such languages, a yesterday past might refer to events of yesterday, or – for cyclical events that recur over longer periods of time – to last month's full moon, last year's harvest, etc. Likewise, the different pasts "could well refer differently" for events involved in "the life span of huge trees as opposed to small plants, or divine versus human events" or according to "the way the speaker sees... or wants to depict events" (Nurse 2008:93).

Tense in general: Even aside from modal-tense cases like Bantu 'still', tense– seemingly more straightforwardly temporal than aspect – must be understood deictically, giving it an inherently pragmatic component.

The Perfective/Imperfective Distinction: Seemingly the most basic of aspectual oppositions, it turns out to be difficult to define or characterize cross-linguistically (for various definitions, see Comrie 1976; Dahl 1985; Smith 1997). Also contentious are the sources upon which perfectivity definitions are based. Dahl (1985) argues that Russian, though often cited as the prototypical example of the imperfective/perfective opposition, differs significantly from the opposition generally found cross-linguistically: it "has a much more 'derivational character" (i.e. it seems to affect lexical aspect) and "is much more independent of time and tense reference" (the strong cross-linguistic past-tense/perfective-aspect correlation does not hold in Slavic) (Dahl 1985:85; see also Timberlake 1985, among many others, for discussions of the complexities involved in the analysis of Slavic aspect).Also, unlike most other aspectual oppositions, the perfective/imperfective distinction is "equipollent" in terms of markedness (Dahl 1985:69-72): it varies from language to language which of the two can subsume both situation-internal and situation-external viewpoints (Comrie 1985:29). Finally, it is apparent from numerous studies that (im)perfectivity cannot be described in purely aspectual terms: in its inherent encoding of point of view, it naturally has discourse-structuring functions, and possibly also modal semantics, as shown for Badiaranke in Cover (2010).

Progressive Aspect: Linguists have been wrestling with the English Progressive, and its interaction with lexical aspect (situation type), for many decades. For example, the progressive is often infelicitous with stative situations (e.g. '#I'm knowing your name'), but there are cases where they can be felicitously used with non-permanent states (e.g. 'Your nose harmonica is lying on the bed' vs. '#Likemwa village is lying along the Kweemba river') (Dowty 1975). However, the progressive is possible even with permanent states if the point-of-view is temporary: 'you'll know you've found my street because an elementary school will be lying to your left'. Another issue with the progressive is the

so-called IMPERFECTIVE PARADOX: progressive activity predicates entail their perfective counterparts ('John was playing his trombone' entails 'John played his trombone'), but progressive telic predicates do not ('John was recording a trombone album' does not entail 'John recorded a trombone album' – the neighbors may have complained and stopped him). Some of the most compelling solutions to this problem (e.g. Portner 1998; Landman 1992) take a modal approach, demonstrating again that aspect and modality cannot be given entirely separate treatment.

The Present Perfect: This has been one of the most problematic aspects (or tenses) over all, largely because of the seemingly built-in "relevance" component of its meaning (see chapter 6 for more details). Some specific problems include the multiplicity of interpretations (perfect of result, perfect of persistent situation, experiential perfect, etc.; see Comrie 1976 for more details); the LIFETIME EFFECT – use of the perfect is (typically) only felicitous during the lifetime of its subject ('Princeton has been visited by Einstein' vs. '#Einstein has visited Princeton'; Portner (2003) has an in-depth exploration of this issue); and the PRESENT-PERFECT PUZZLE (Klein 1994): use of the English present perfect is infelicitous (on a non-habitual reading) with specified temporal adverbials ('I've (recently) made guacamole' vs. '#I've made guacamole at 10:30 am today'). Also, with the English Present Perfect, for example, stative predicates may either be true at or before reference time, as shown by (3). (Non-stative events are understood as being situated prior to reference time with the perfect.)[12]

(3)   I have been joyful (recently). [*State held at some point in the past and possibly continues in the present*]

It is difficult to overlook the fact that nearly every tense and aspect raises questions that are problematic for a purely temporal analysis. That is, deviations from temporal meanings appear to be as common as the temporal meanings themselves. This is true for a number of reasons. First, it is widely accepted that tense, aspect, and mood are not separate systems, but overlap and interact in significant ways. As noted by Cover (2010:47) the very notions of "endpoint" and "completion", often used to define aspect, are inherently modal. For example, Cover (2010) analyzes the completion semantics of the Perfective in Atlantic Niger-Congo language Badiaranke as relating to modal worlds in addition to times. Timberlake (1985) also incorporates modality into his analysis of Russian aspect, arguing that interval-based semantics (such as those used by Klein (1994)) are inadequate. Second, it is difficult, if not impossible, to separate "basic meanings" of tense and aspect from their discourse uses; it is increasingly accepted that tense and aspect play information-structuring roles (e.g. Hopper 1979a; Fleischman 1990). Many of the more recent studies of tense and aspect adopt pragmatic, information-structuring principles in some form to arrive at more unified analyses. Some approaches are outlined in the next section.

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[12]For an explanation of this phenomena based on a TEMPORAL SEQUENCING PRINCIPLE, see Portner (2003).

1.2.3 Approaches to extra-temporal functions of tense and aspect

Characterizations of tense and aspect, even those that are primarily temporally based, frequently note the pragmatic, modal, and discourse-organization features fundamentally intertwined with tense and aspect. For example, Comrie (1985) analyzes the Bantu 'still' (§7.3.5.3) and 'not yet' tenses as combinations of tense presuppositions (e.g. for 'still', the situation held in the past) and tense assertions (e.g. for 'still', the situation holds at present). Caudal & Roussarie (2002) comment that

> crosslinguistically speaking, it has been noted that strong connections exist between aspectual interpretation and evidentiality... – so-called constatives of inferentials are often perfect or resultative morphemes, while testimonials are often progressives... [V]iewpoints should be treated as speech-act devices because they express the speaker's stance towards an eventuality he/she wants to refer to (Caudal & Roussarie 2002:1-2).

Levinson (1983) describes tense, the deictic encoding of (topic) time with respect to the time of utterance, as having two senses: M-TENSE (metalinguistic tense) is the purely deictic, temporal relation of utterance time to other times, and is language independent and universal.[13] L-TENSES (the tenses in a particular language are a language's mechanism for systematically marking time distinctions. While M-tense is "strictly temporal", L-tenses "nearly always encode aspectual and modal features" as well, and may not be in a straightforward one-to-one matching with M-tenses. Which M-tense distinctions are encoded as L-tenses are language specific and, possibly, culturally dependent (Levinson 1983:77*ff*). A serious question is raised by this analysis If it is a (near) universal characteristic of languages to encode more than just temporal relationships in tense and aspect marking, how should these extra-temporal functions be handled in a theory of tense and aspect? Are they part of the basic definitions of tense and aspect, or are they somehow secondary, to be analyzed apart from the core meanings?

Whether these extra-temporal uses are part of the basic definitions of tense and aspect is another point of contention. This section discusses in greater detail several kinds of approaches to analyzing the extra-temporal functions of tense and aspect marking, from the strict temporal views of (e.g.) Reichenbach, to the radical holism of Mental Spaces Theory.

1.2.3.1 Strict temporal approaches

Reichenbach explains the non-correspondence of actual tense to philosophical, logical tense relations by referencing their "historical origin": because languages develop tense functions slowly over time, "we should ... not be astonished if actual language does not always fit the schema which we try to construct in symbolic logic"(Reichenbach 1947:298). In other words, the theory is perfect, but actual languages are not.

Similarly, Comrie (1985) argues that the primary, basic meaning of the past tense is universally "past time reference", and that deviations from these – for example, the use

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[13]It seems this would hold even for languages without obligatory grammatical tense marking.

of the English past tense for increased politeness in utterances like 'I wanted to ask you ...' – constitute secondary meanings and must be analyzed as such. Comrie argues that the discourse functions of tense, at least, are cancelable implicatures and thus not part of basic semantic meanings; indeed, to consider discourse functions as basic would "destroy the homogeneity of the concept and therefore the possibility of a general theory of tense" (1985:35). Klein also notes that views of discourse function as primary to TA meaning are "attractive and gaining in popularity" but not part of the "conventional picture"; Klein opts for an analysis of tense and aspect defined strictly in terms of temporal relations (Klein 1994:17).

1.2.3.2 Underspecified temporal semantics with pragmatic enrichment

A basic view of the role of pragmatics in tense and aspect interpretation is that tense and aspect marking denotes an underspecified semantic meaning, which is then enriched through pragmatic principles. Such a view may be found in Portner's analyses of the English Progressive (Portner 1998) and Present Perfect (Portner 2003). Portner's modal analysis of the progressive involves a semantics that relies crucially on contextual knowledge (here, the "modal base") for its felicity: a progressive sentence with a telic predicate cannot truthfully be uttered if the context seems to preclude the event described being carried to completion. A corollary of this seems to be that in using the progressive, a speaker informs the addressee(s) that the modal base – the relevant part of the real world – is such that the completion of the action described as in progress really is possible. (Its completion, however, is not assured; for Portner, this explains the source of the "progressive paradox" alluded to above in 1.2.2.2). Similarly, Portner's analysis of the English Present Perfect argues for a limited temporal semantics along with (modal) pragmatic presuppositions such as discourse relevance (as defined in Roberts 1998). Nishiyama & Koenig (2004b,a, 2010) also take a pragmatic-enrichment approach to the analysis of the perfect, although their explanation involves not presupposed relevance, but a "perfect state", characterized by a semantically free variable, the vaule of which is pragmatically inferred by the hearer via (neo-)Gricean rules.

Such views of aspect are similar to other theories that involve semantic underspecification and pragmatic enrichment, such as Blutner's theory of LEXICAL PRAGMATICS (e.g. Blutner 2004) and Wilson and Sperber's (e.g. Wilson & Sperber 2004).

Analyses such as Portner (1998, 2003) and Nishiyama & Koenig (2004a,b, 2010) represent a step in the direction of analyzing TA in terms of discourse function: they acknowledge the necessity of context-based pragmatic interpretation of aspectual forms. However the past decades have seen the development of tense/aspect analyses based even more directly in principles of information structure. In these theories, the structuring of discourse is viewed as a function that is, to some degree, basic to TA forms.

1.2.3.3 Primary temporal meaning for tense and aspect, with pragmatic extension

Fleischman acknowledges temporal determination as a basic (and the "primary") function of tense marking, but notes that is also has "expressive" (social, attitudinal) and discourse pragmatic functions, and that in narrative contexts, "tense contrasts may be pressed into pragmatic service" as discourse organizers (Fleischman 1985:851). For example, in Old French texts, the Simple Past and the (Narrative) Present seem to alternate freely from sentence to sentence. Both are used to describe "temporally ordered, punctual, past events in the narrative foreground" (Fleischman 1985:870). However, closer investigation shows that when a Simple Past interrupts a series of sentences given in Narrative Present, there is also an interruption of the temporally sequential narrative flow to give or repeat background information. Thus, tenses in narrative serve GROUNDING functions, marking information as foregrounded or backtrounded – i.e. more or less salient or unpredictable – within the narrative. Fleischman stresses that grounding contrasts do not involve a simple binary distinction between foreground and background, but operate on a "continuum" (Fleischman 1985:851).

Fleischman also notes the close connection between narrative grounding and expressive functions of tense and aspect, in which speakers convey their attitudes and beliefs. In particular, the expression of temporal distance is often metaphorically expanded to include "more abstract conceptual and cognitive" distances (Fleischman 1989:2). This occurs, Fleischman argues, because tenses that describe a time other than now have an inherent non-reality that naturally lends itself to other expressions of irrealis situations and attitudinal or epistemological distancing from the situation under discussion. For example, in both English (4) and Spanish (5), markers of temporal distance have politeness functions. These examples are ordered in increasing order of politeness. In both, the present version represents the most direct, least mitigated request.

(4)   a. Hello! I just want to ask you a question.
      b. Hello! I just wanted to ask you a question. (*more polite*)

(5)   (All sentences convey the speaker's desire to speak with the addressee.)
      a. **Quiero** hablar   con usted
          I.want to.speak with you(formal) (**Present**)
      b. **Quería** hablar   con usted
          I.want to.speak with you(formal) (**Imperfect**)
      c. **Querría** hablar   con usted
          I.want   to.speak with you(formal) (**Conditional/Future-of-Past**)
      d. **Quisiera** hablar   con usted
          I.want   to.speak with you(formal) (**Imperfect Subjunctive**)(*most polite*)
          (adapted from Fleischman 1989:9)

Fleischman (1989) gives many additional examples of expressions of temporal distance used to convey reality status and personal distance, arguing that expressions of temporal

distance naturally extend to convey metaphorical distance in expressions of epistemic certainty and deontic strength, "assertiveness", "interpersonal distance" (e.g. politeness and hypocoristics), "evidentiality", and "speaker subjectivity". Such extensions, however, must not be viewed as the *primary* meaning of tense, which remains strictly temporal in Fleischman's view (Fleischman 1989:17).

1.2.3.4 Tense and aspect as discourse phenomena

While Fleischman claims that tense forms have temporal meaning, and that inherent distancing (or lack thereof) naturally leads to pragmatic expansion towards extra-temporal functions, Hopper (e.g. 1979a,b, 1982) and others argue that tense and aspect categories originate in discourse and only become "intelligible" when examined from a discourse perspective. For example, the distinction between perfective and imperfective aspect in many languages may be characterized as an opposition between foregrounding (perfective) and backgrounding (imperfective). Temporal indicators are then "superimposed" on these primary functions (Hopper 1979a:329). Hopper illustrates this proposal using a number of languages, including Russian and French. In Russian, he claims, the perfective is used for "foregrounded event lines" and the Imperfective is used for "backgrounded scene settings and descriptions (Hopper 1982:9). This basic meaning allows for additive meanings of Russian aspect like a "try to" sense of the imperfective, which "must be inferred from the context given the discourse meaning 'no Next Event asserted or implied"'' (Hopper 1982:11).

Similarly, Hopper argues that the idea of a completed event conveyed by perfective aspect derives from the form's narrative function of depicting consecutive taxis. Taken out of context, forms with narrative functions may be interpreted as tense or aspect, and eventually grammaticalize as such (Hopper 1979b, 1982; see Heine *et al.* 1991:240-241). Thus, according to Hopper, TA markers originate in discourse, rather than being "ready-made devices 'deployed' [in discourse] because they already happen to exist" (Hopper 1979a:217). Sentence-level interpretations of tense and aspect – the units traditionally taken into account in Reichenbachian (and neo-Reichenbachian) theories – are mere "correlates" of discourse functions (Hopper 1982:16).

1.2.3.5 A holistic cognitive view of tense and aspect functions

Some theories take a more holistic approach, in which temporal meanings of tense are understood as a specific case of "a more broadly understood distance from present reality" (e.g. Steele 1975; Langacker 1978; Hutchinson 1985, all cited in Fleischman 1989:16). Heine *et al.* (1991) note that in some views, (e.g. García 1975, cited in Heine *et al.* 1991), "syntax per se does not exist at all, and language can be described 'exhaustively' by reference to some communicative principles that underlie the structure of discourse" (Heine *et al.* 1991:240-241). In Mental Spaces Theory (MST) (as described in Sweetser & Fauconnier 1996),TAM marks both time and reality status of discourse-created mental spaces.

Botne & Kershner (2008) propose a framework complementary to MST and dealing with "the organizing principles of the tense-aspect system itself" (Botne & Kershner 2008:158).

In their framework, time-based tense and aspect distinctions are just once facet of their respective forms' functions within discourse. They put forward a model of tense and aspect that involves a non-linear representation of time (cf. inter alia Reichenbach 1947; Comrie 1985; Klein 1994) and takes into account three possible perspectives, all of which may be employed by a language: time as a "path" with the ego ("conceptualizer") moving along it, time as a "stream" moving the ego along as it passes occurring events, and time as a stream floating events past the ego (Botne & Kershner 2008:148).

These time perspectives can operate both within and between temporal domains, or COGNITIVE WORLDS, based on cognitive mental spaces. Botne & Kershner's conception of cognitive words is "comparable, but not identical to...Klein's topic time" (Botne & Kershner 2008:152). There are two important domains: The P-DOMAIN (or "primary" domain; see Botne 2010) is the cognitive world included in the time of speech, "denot[ing] a primary, prevailing experiential past and future perspective". In contrast to this, the D-domain is dissociative, marking "relations of non-inclusion" (Botne & Kershner 2008:153).

There are several possible oppositions represented in the two domains, some or all of which may have distinct grammatical marking. *Which* oppositions are marked, and how, varies from language to language. The P-domain can involve situations and things that are real, here, and temporally coincident, while the D-domain involves the not real, the not here, and the not now. Botne & Kershner note that in many languages, marking of these oppositions (real vs. not real, here vs. not here, and now vs. not now.) is formally similar or identical within a domain; this generalization motivates their analysis. That is, it is often the case that a marker of temporal distance (e.g. past tense) in one context, may mark irrealis mood in a different context.[14] Primary oppositions are depicted in table 1.2.

	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 1.2: Cognitive domains in Botne & Kershner

In Botne & Kershner's model, TENSE marks the deictic relationship between the speech time (or other perspective time) and the cognitive domain involved in the event's depiction. If the cognitive domain is the D-domain (i.e. excludes the speech time), the tense will be marked as (e.g.) past or future. There may also be time distinctions within the P-domain;

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[14]It should be noted that Botne & Kershner do not claim that the same marker will indicate (e.g.) *both* past and irrealis in a single context.

Botne & Kershner call these TENORS rather than tenses Botne & Kershner (2008:171). Tenor "situates the event at some location in time in relation to a reference point" within the currently salient domain. The distinction, then, is whether a marker situates an event (or the part of the event that is referred to) within a cognitively dissociated world (tense), or in a prior or future unit of the currently associated world (tenor). This distinction seems to be an innovation from traditional understandings of tense and aspect.

An example of a tenor belonging to the P-domain is the English Simple Present. The associative sense explains its use with (e.g. planned) future and (historical present) past meanings. The *-ED* suffix, in contrast, belongs to the D-domain, and can mark either past or irrealis (Botne & Kershner 2008:153-154). It is thus a tense marker, and not a marker of tenor.

Thus, for Botne & Kershner, tense is the relationship between two domains or cognitive worlds, and tenor depicts temporal relationships within that world. Aspect "denotes a particular temporal phase of the narrated event as the focal frame for viewing the event. This focal frame depicts the status of the event in relation to the vantage point determined by Ego" (either the speech time or some other contextually determined time) (Botne & Kershner 2008:171). That is, aspect locates the vantage point in the internal structure of the situation currently depicted.

Botne & Kershner argue that their model allows for a unified view of tense, aspect, and mood marking in all of its functions, and can explain tense/aspect "curiosities" in a number of languages. While Botne & Kershner's proposal "do[es] not dispute" patterns of historical developments as discovered by grammaticalization theorists, it deals with TA functions on a synchronic level; their analysis focuses on explaining and organizing the correlations between tense and "related verbal deictic phenomena" (Botne & Kershner 2008:160).

As a further example, Botne & Kershner discuss past tense marking in Ekoti (P.30), a Bantu language of Mozambique. Ekoti has two simple pasts, RECENT PAST (P1) and REMOTE PAST (P2). Both pasts are perfective, but the Recent Past – though "neither a perfect...nor fully resultative" – connotes current relevance, and is thus assigned by Botne & Kershner to the P-domain (Botne & Kershner 2008:183). In contrast, the Remote Past has no such flavor of current relevance, although it may be used even for situations that occurred a mere day before the time of utterance. Botne & Kershner assign it to the D-domain.

The domain distinction has ramifications in Ekoti syntax. If an active sentence describes an event that happened long ago and has enduring consequences that are not necessarily of relevance for the agent, it takes Remote Past (P2) marking. If the same sentence, however, is passivized, so that the enduring object is the salient entity, the Recent Past (P1) is used. (Recall from above that P1 is perfective and does not have "fully resultative" semantics.) An example is of P1 used with a passivized P2 expression is given in (6).

(6) a. azúkú   (a-)**aa**-cek-**íyé**   fortalééza
      Portuguese (3PL)-**P2**-build-**P2** fortress

      'the Portuguese **built** [**P2**] the fortress'

b. fortalééza y-**a**-cek-íw-a   n'aazúku
   fortress   3SG-**P1**-build-pass-FV by   Portuguese

   'the fortress **was built** [**P1**] by the Portuguese' (Schadeberg and Mucanhela 2000:116, quoted in Botne & Kershner 2008:185, ex.23)

According to Botne & Kershner, the activity of the Portuguese is in the distant past and is dissociated, but the fortress "still exists in the contemporal world of the speaker", hence the domain markings seen in (6a) and (6b) (Botne & Kershner 2008:183-185).

Iatridou (2000) offers a similar analysis to account for the cross-linguistically common use of past tense morphology in counterfactuals, proposing that past tense morphology has an "exclusion feature" EXCLF, which serves to exclude the topic time from the utterance time when the relationship is temporal. When the relationship is that of reality status, the EXCLF feature of past morphology excludes the topic *world* from the utterance world (or the relevant reference world).

Nichols (2003) analyzes counterfactual clauses in Zuni and English along similar lines, arguing for a common semantic core of counterfactuality despite surface differences, which she argues are due to different possibilities for "reference contexts". In both languages, past morphology is used to indicate that the counterfactual "proposition is evaluated as consistent with a context set of worlds that lie *outside* the reference context set (Nichols 2003:91). Nichols also argues that Klein's (1994) notion of "topic time" is too narrow and should be expanded to include other aspects of the "assertion context", including time, speaker, hearer, and context set. Time of utterance should similarly be expanded to "utterance context" or even "reference context", since at least some languages (e.g. Zuni) allow for shifting of reference context (Nichols 2003:94-96). The notions of assertion context and utterance/reference context seem basically compatible with Botne & Kershner's context worlds, the P- and D- domains, and with tense acting as a shifter between these worlds.

Temürcü (2007) similarly proposes a system in which TAM is analyzed in terms of domains. Temürcü proposes three "anchoring" domains: time (temporal domain), knowledge (epistemic domain), and volition (volitional domain).[15] Under Temürcü's theory, these three domains comprise a universal semantic framework under which TAM may be described and compared: TAM is seen as "situating" an utterance within each of the three domains. Basic temporal categories include "simultaneous", "anterior", "posterior", "atemporal" and so forth; epistemic categories include "new information", "certain", "hypothetical, "inferred", and so forth; volitional categories are things like "accepted", "invisioned", and "wanted" (Temürcü 2007:55-105). The three anchoring categories are in a hierarchical relationship where temporal specifications scope over a "state of affairs" (∼situation, eventuality), epistemic specifications take scope over temporal; and volitional relations scope over epistemic specifications (Temürcü 2007:18-19). All specifications may come from utterance elements other than TAM markers (TAM markers most typically being associated with temporal relations) but TAM markers, including three Turkish markers Temürcü analyzes in detail, may

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[15]In contrast to the domains in Botne & Kershner (2008), Temürcü argues that the spatial dimension is *not* relevant for TAM.

anchor an element in each domain.

Like Botne & Kershner (2008) and many other approaches discussed above, Temürcü's account recognizes the multiple functions related to TAM markings. In contrast to these approaches, the function-to-form approach taken by Temürcü separates temporal, epistemic, and volitional domains, and may therefore miss important tendencies for particular specifications from the three domains to cluster together.[16] Its goal is rather to provide a toolbox for rigorous and precise description that is not language dependent or (Temürcü hopes) subject to the "notorious terminological confusion" of traditional TAM descriptions. Which approach is preferable seems to depend on the desired outcomes of the study.

1.2.3.6 Summary of approaches to the analysis of extra-temporal functions of TAM

The approaches described above to the analysis of TAM's extra-temporal functions may be summarized as follows:

Primary temporal meaning, underspecified temporal semantics: Underspecified, basic semantic temporal meaning with contextual (pragmatic) enrichment (e.g. Portner 1998, 2003)

Primary temporal meaning with pragmatic extension: Temporal determination as the primary function; expressive and discourse pragmatic functions develop via pragmatic extension (e.g. Fleischman 1985, 1989)

Primary discourse functions: Origin of tense and aspect in discourse; temporal indicators "superimposed" on primary functions (Hopper 1979a:329)

Holistic cognitive functions: Tense not construed in terms of time at all; temporal interpretations are a specific case of general cognitive notions of distance (e.g. Steele 1975; Langacker 1978; Hutchinson 1985, also Temürcü 2007; Botne & Kershner 2008)

The tense and aspect system of Totela suggests an approach along the lines of Botne & Kershner (2008): temporal properties are just one facet of the tense and aspect marking system. Temporal and information-structuring properties of selected tense and aspect markers are discussed in chapters 3-6.

Frameworks such as Botne & Kershner's domain theory bring important insights to studies of tense and aspect, and provide a valuable framework within which to conduct research. However, their analysis does not take into account the grammaticalization patterns repeatedly observed with TAM marking, which are important for understanding the origin and development of synchronic systems, as well as for accounting for ranges in meaning for particular markers. Grammaticalization and TAM is discussed briefly in section 1.2.4. While

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[16]It should be noted that Temürcü's study does lead to cross-domain clustering generalizations, as well, when applied within a single language (Turkish). (Temürcü 2007:178). If extensive studies were undertaken using Temürcü's methodology in a large number of languages, similar (or different) clusterings might emerge.

an in-depth diachronic study of Totela TAM is impossible with current data availability for Totela and its relatives, I attempt to frame results both synchronically and diachronically by noting possible Proto-Bantu origins, as well as by giving attention to form and meaning correlates in other Bantu languages.

1.2.4 Grammaticalization and TAM

Bybee & Dahl (1989) propose that a tense or aspect marker should not be understood as belonging to a TA "supercategory" that operates identically regardless of the marker's source. Rather, it is "an instantiation of a range on a path of development" – likely to be similar in function to other grams[17] from sources like its own and at similar stages in their development pathways – and therefore "must be viewed as having inherent semantic substance reflecting the history of its development as much as the place it occupies in a synchronic system" (Bybee & Dahl 1989:97). Tense and aspect markers, then, can only be understood within their historical context.

Under the simplest definition, grammaticalization involves the change, over time, of a free lexical item to a "grammatical unit", or of a grammatical unit to an even "more grammatical" unit in function (Heine *et al.* 1991:2). Heine et al. claim that grammaticalization processes are universal, and can involve any type of grammatical function. Grammaticalization occurs in a chain: new, more grammatical uses are gained, and older, less grammatical uses may eventually (but not necessarily) drop out (Heine 2003:579). Grammaticalization is generally understood to involve the processes of DESEMANTICIZATION (loss of specific semantic meaning), EXTENSION (widening of usage contexts), DECATEGORIALIZATION (loss of word-class specific morphosyntax), and EROSION (morphological and phonological reduction) (Heine *et al.* 1991:2).

Traugott (2003) notes that not all of these processes may take place in every instance of grammaticalization – for example, the development of discourse markers from lexical items does not necessarily involve phonological erosion – and that failing to fulfill one of the above criteria should not preclude a change process from being given a grammaticalization-based analysis: changes still occur in predictable ways. This thinking leads Traugott to propose a new definition for grammaticalization:

> the process whereby lexical material in highly constrained pragmatic and morphosyntactic contexts is assigned grammatical function, and once grammatical, is assigned increasingly grammatical, operator-like function (Traugott 2003:635).

The status of grammaticalization as an independent process worthy of study as such has been hotly contested. For example Campbell (2001) argues that the idea of "grammaticalization", though a useful heuristic for understanding trends in language change, is not an independent phenomenon, but can be explained by well-known linguistic processes like sound change, semantic change, and reanalysis.

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[17]"Grammatical morphemes", including "affixes, stem changes, reduplication, auxiliaries, particles, or complex constructions such as English *be going to*" (Bybee *et al.* 1994:2).

Heine (2003) counters that such objections are "irrelevant". First of all, the mechanisms involved in grammaticalization, regardless of whether they are independent processes, are closely interwoven. In particular, desemanticization leads to the other processes. More important, grammaticalization theory has predictive power: strong cross-linguistic patterns can be found for sources and results of grammaticalization.

Much work has been done to explore grammaticalization patterns of tense and aspect markers. One important question about grammaticalization and tense/aspect is the relationship between grammaticalization and pragmatics/IS. Specifically, as tense and aspect forms grammaticalize, do they gain or lose pragmatic force?

The traditional view within grammaticalization theory has been that proposed by Givón, who made the famous claim that "today's morphology is yesterday's syntax" (Givón 1971:413). According to Givón, the grammaticalization process involves a shift from pragmatic function to semantic meaning, to morphological expression, and, eventually, to nothing:

(7) DISCOURSE > SYNTAX > MORPHOLOGY > MORPHOPHONEMICS > ZERO
     (Givón, summarized in Heine *et al.* 1991:13)

This is also the view taken by Hopper, who argues that tense and aspect semantics grammaticalize from discourse uses. In contrast, Traugott (1989, 1999, 2003, 2004) (see also Rossari *et al.* 2009 and Heine 2003, among others) argues that much grammaticalization actually involves PRAGMATICIZATION, rather than loss of pragmatic force. Traugott notes that more recent cognitive- and metaphor-based studies have shown that grammaticalization involves predictable semantic changes (see e.g. Heine *et al.* 1991:48) which, while losing semantic *specificity*, do not lose semantic *complexity*. For example, a deontic "sense of obligation" is not lost in the shift from deontic to epistemic modal meaning. Rather, it is "simply transferred to another world" (Traugott 2003:632). That is, both *John must write a song a day to meet his goal for his next album* (deontic) and *John must write a song a day; he is so prolific* (epistemic) have a sense of obligation; in the latter, the obligation is linked not to external reality but to the speaker's internal world of "reason and belief" (Traugott 1989:49; see also Sweetser 1984:24, who claims that "we view logical necessity ... as being the mental analogue of sociophysical force"). In addition, Traugott argues that much grammaticalization actually involves pragmatic *strengthening* through processes like SUBJECTIFICATION, a shift form propositional meaning to an expression of speaker attitude (Traugott 2003).

Traugott claims that meanings tend to become more situation-internal, subjective, and evaluative (PROPOSITIONAL > TEXTUAL/EXPRESSIVE) (Traugott 1989:31). Such changes cannot simply be accounted for by domain expansion, semantic bleaching, or metaphoric processes. Rather, there is a pragmatic strengthening process involving the conventionalization of conversational implicatures. Conventionalizing implicatures creates regular semantic meaning, but it does not necessarily remove pragmatic force. (Traugott 1989).

My position in this study is that while tense and aspect grammaticalization moves in the direction DISCOURSE MARKER > ASPECT > TENSE, the pragmatic functions – distinct from those of the source markers – that serve to structure information (as discussed in

1.2.3) may develop at any stage. This study is not meant to develop a particular theory of grammaticalization, but, as noted above, historical views may help situate synchronic TA functions in Totela.

1.2.5   Narrative

1.2.5.1   Definition and terminology

As a starting point, we may take the definition of NARRATIVE in Labov & Waletzky (1967): a telling of events in the sequence in which they occurred. More specifically, "narrative" in this study refers to a narration of events (real or unreal) by a single speaker, largely uninterrupted. Most of the narratives dealt with here are fictional stories, often with magical or anthropomorphic elements, apparently passed on from generation to generation. The stories are usually punctuated by recurring songs, sung by particular characters in the stories. In typical tellings of Totela narratives as I experienced them, a single speaker relates the story, while the audience participates by singing along with the choruses as well as by reacting to the telling itself, and occasionally interjecting with corrections or clarifications. (For more details about the narratives in this study see 1.4 below.) Although this study necessarily focuses on the verbal content of narrative monologues, it is important to keep in mind that even the apparent "monologues" of narrative are, in fact, very much interactive communicative events, and that the interactions that occur are very likely to shape the narratives themselves.

Although narrative may be broadly defined as a sequential telling of events, it is obvious that not every clause in a narrative discourse will follow a strict sequential order: speakers may backtrack to give or reiterate important background details, or may interject evaluative comments, for example. This interplay between sequential narration and out-of-sequence utterances within narrative is a large part of what makes the study of narrative linguistically interesting, as non-sequential clauses in narratives are often marked by particular linguistic devices such as tense and aspect choice or particle use. Additionally, events of particular salience within narratives may also have special marking of some sort.

It should also be noted that sequential, or ICONIC ordering of narratives is not a universal characteristic.[18] Fleischman (1990:133) notes that oral literature is less reliant on iconicity than is most written literature, referencing Ong (1982:139-144), who argues that a rule of chronological sequencing gains importance with the cultural acquisition of literacy. Instead, oral narrative has episodic structure, often "starting in 'the middle of things' and "managing flashbacks and other episodic techniques" with "supreme skill" (Ong 1982:141). Traditional epic narratives, Ong argues, are drawn from a collective memory of countless episodes, and episodic structure, rather than strict chronological ordering, is the only possible way of recounting them. Acknowledging this non-iconicity, Fleischman also notes that the lack of iconic ordering is typically a characteristic of longer texts such as epics, and that "within lower-level narrative units such as episodes or scenes, which often correspond to prosodic or performance units, there is distinctly greater iconicity" (1990:134). Iconic sequencing of

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[18]Even in genres where narrative ordering is typically iconic, narrators are of course often free to tell events out of sequence to produce special effects.

events is prevalent in Totela narrative episodes, and appears to be a general characteristic of traditional folk narratives in Totela, as well, although some episodes may also re-occur somewhat cyclically in narratives. The Totela narratives in my corpus are typically fairly short, as well, generally taking between two and ten minutes to tell.[19] Therefore, they are not an argument for or against iconicity in oral narratives, and Labov & Waletzky's definition given above remains a useful working characterization of narrative.

Narratives, in this study, are understood as a type of VERBAL ART, as discussed in some detail in Finnegan (1992). They are typically performed orally (as opposed to being in written form, and not excluding other aspects of verbal art performance, including (for example) gesture), although some stories in this analysis are also in written form, after their transcription and revision with a team of native speakers.

1.2.5.2 Theoretical background

Some of the major studies of language use in narrative were undertaken by Labov (including Labov & Waletzky 1967; Labov 1997, 2001) and by Longacre (1996). Like Labov and Waletzky, Longacre defines narrative in terms of CONTINGENT TEMPORAL SUCCESSION, adding also that it is characterized by AGENT ORIENTATION – that is, the identity of the *doer(s)* of narrated events is important and is maintained to some degree throughout the narrative (Longacre 1996:8-9).[20] Longacre goes on to outline the parts of (prototypical) narrative PLOT as consisting of EXPOSITION, INCITING MOMENT, DEVELOPING CONFLICT, DENOUEMENT, FINAL SUSPENSE, and CONCLUSION. These are described in table 1.3.

1.	EXPOSITION	"crucial information of time, place, local color, and participants"
2.	INCITING MOMENT	"the planned and unpredictable is broken up in some manner"
3.	DEVELOPING CONFLICT	"the situation intensifies – or deteriorates"
4.	CLIMAX	"everything comes to a head . . . contradictions . . . tangles . . . confrontation is inevitable"
5.	DENOUEMENT	"a crucial event which makes resolution possible"
6.	FINAL SUSPENSE	"details of the resolution"
7.	CONCLUSION	"wrap it up"

Table 1.3: Plot elements in Longacre (1996:34-36)

Longacre describes climax (and, sometimes, denouement) elements as PEAK episodes

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[19]Speech rate of course varies greatly, and the frequency, length, and rhythm of songs also cause variation in the number of words in a story but speakers seem to average between 50 and 75 words per minute.

[20]Longacre uses the binary features contingent temporal succession (CTS) and agent orientation (AO) to distinguish four major discourse genres: NARRATIVE (+CTS, +AO), PROCEDURAL (how-to: +CTS, -AO), BEHAVIORAL (such as sermons and eulogies: -C +AO), and EXPOSITORY (-C, -AO).

within the narrative, "set apart by special surface structure features and corresponding to the climax or denouement in the notional structure" (Longacre 1996:37)[21] These peaks are "zone[s] of turbulence in regard to the flow of the discourse in its preceding and following parts" and are often given special marking (Longacre 1996:38). A few common strategies are listed in (8).

(8) Peak-marking strategies (Longacre 1996:37-48)
    a. use of different tense/aspect than in main storyline
    b. change in use of particles (increasing, decreasing, or changing in nature) and onomatopoeia
    c. disturbance of "routine participant reference"
    d. concentration of participants
    e. rhetorical underlining: "parallelism, paraphrase, and tautologies of various sorts to be sure you don't miss [the point]"
    f. heightened vividness, marked by (e.g.)
       i. shift in nominal/verbal ratio
      ii. shift in surface-structure tense
     iii. shift to "more specific" person (e.g. from 2nd to 1st person or from plural to singular)
     iv. shift along the following continuum:
         NARRATIVE > PSEUDO DIALOGUE[22] > DIALOGUE > DRAMA (the speaker takes on the parts of the characters almost as an actor)
    g. change of pace: shorter or longer unit lengths, less conjunction and transition
    h. change of vantage point and/or orientation: change in focal character, role-reversal (victim becomes aggressor, etc.)

Longacre cautions that not all narratives may be expected to have special peak marking (Longacre 1996:38), but these are generally the types of things we may expect to find cross-linguistically. In this study, I am particularly interested in the use (or lack thereof) of tense and aspect marking to highlight plot structure.

Labov (1997, 2001) and Labov & Waletzky (1967) put forth a plot schema that is similar to that of Longacre (1996), with a few crucial differences: the inciting vs. developing vs. climaxing of the plot is not differentiated, but EVALUATIVE sections are distinguished from NARRATIVE sections. In addition, the ordering of elements is not as fixed: although abstracts and codas generally occur at the beginning and ending of a narrative, respectively, the other elements are typically at least somewhat interchangeable. Not every element is

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[21]Longacre's structuralist account distinguishes "notional" (emic; deep semantic structure) and "surface" (etic) narrative structures, which may or may not correspond. That is, in some languages or narratives, "sentences" or (oral or written) "paragraphs" may correspond with the underlying episode structure, while in other languages/narratives, the correspondence may be less clear (Longacre 1996:16).

[22]Pseudo Dialogue may take the form of (e.g.) apostrophe or rhetorical question.

required for a narrative; a minimal narrative may consist purely of complicating action. (Labov & Waletzky (1967) argue, though, that a narrative has no "point" without evaluation). The narrative elements described in Labov & Waletzky (1967) are summarized in table 1.4.

ABSTRACT	a sort of pre-summary, often with the aim of licensing the speaker to take the conversational turn for the duration of the narrative
ORIENTATION	"formally, the group of free clauses that precede the first narrative clause", serving to "orient the listener in repect to person, place, time, and behavioral situation" (Labov & Waletzky 1967:93) (*similar to Longacre's* EXPOSITION)
COMPLICATING ACTION	"the main body of narrative clauses" describing "a series of events that may be termed the complication or complicating action" (Labov & Waletzky 1967:93) (*similar to Longacre's* INCITING MOMENT, DEVELOPING CONFLICT, CLIMAX)
EVALUATION	the "point" of telling the narrative, expressed in elements like evaluation of events, assignment of praise or blame, etc. (The definition of this element, somewhat unlike the others, is necessarily semantic, because, for example, narrative clauses may also be evaluative.)
RESOLUTION	formally, "that portion of the narrative sequence that follows the evaluation" (Labov & Waletzky 1967:94) (*similar to Longacre's* DENOUEMENT, *and possibly* FINAL SUSPENSE)
CODA	"the termination of the narrative by returning the time frame to the present", accomplished by a variety of devices (Labov 2001:65; see also Labov & Waletzky 1967:100-101)

Table 1.4: Narrative elements in Labov & Waletzky (1967) (and further works)

The formal definition of RESOLUTION is necessary, according to Labov & Waletzky (1967:94), because "semantic criteria [for determining the resolution, or result, of the complicating action] are often difficult to apply and seldom consistent. Without further functional analysis, it will usually be hard to tell when a narrative is actually over – when the result begins and when it has been given in full". In fact, a formal definition of most of these elements is possible when clauses of surface narrative forms are rearranged into their underlying forms. Orientation clauses, for example, precede the first clause temporally – and thus in the underlying narrative structure – but they may in fact be inserted at various points in the narrative. To reconstruct the underlying narrative form, Labov & Waletzky (1967) classify clauses based on whether, and to what degree, they can be displaced within the narrative

without affecting its temporal structure:

(9) Clause types in Labov & Waletzky (1967)
  a. NARRATIVE CLAUSES: cannot be displaced without affecting temporal structure
  b. RESTRICTED CLAUSES: can be displaced through *part* of the narrative
  c. FREE CLAUSES: can be placed anywhere throughout the narrative

Once all clauses are assigned to one of these categories, the narrative's underlying sequence can be determined by moving all clauses to the beginning of their displacement sets.

The method for narrative analysis outlined in Labov & Waletzky (1967) was used by those authors to describe "oral versions of personal experience", which they argue are the most straightforward to analyze. However, their methodology has been successfully implemented in other types of narrative, perhaps most notably by Fleischman (1990) in her analysis of tense and aspect as narrative devices in a variety of languages and genres from a wide time span. My analysis method, outlined in 1.4 below, also largely follows Labov & Waletzky (1967) and Labov's subsequent work on narrative. Tools from the framework of Longacre (1996), particularly those related to peak marking, are also employed.

1.2.5.3 Tense and aspect in narrative

Regardless of the controversy over "basic" functions of TA forms vis-à-vis their narrative/discourse roles (1.2.3), it is apparent from research on a number of languages that both tense and aspect are used to fulfill a variety of goals in narrative discourse. Fleischman (1990) frames these uses in terms of MARKEDNESS: when a tense or aspect occurs that is marked for a particular quality or qualities within narrative, it is likely there to perform a function related to those qualities.

As noted above, in Old French texts, the Simple Past and Narrative Present may alternate within a narrative, without an immediately apparent distinction. Both are used to describe "temporally ordered, punctual, past events in the narrative foreground" (Fleischman 1985:870) However, closer investigation shows that when a Simple Past interrupts a series of sentences given in Narrative Present, there is also an interruption of the temporally sequential narrative flow to give or repeat background information (Fleischman 1985).

Fleischman goes on to examine the Preterit (=past perfective) in terms of its markedness for various referential, textual, expressive, and metalinguistic functions, as in table 1.5. Crucial here are markedness for REALITY STATUS at the expressive level, and GROUNDING at the textual level. Because the past perfective is in many languages "the expected (unmarked) tense for reporting events", it is not used to foreground events in narrative (–foreground), and narrated events described in the past perfective are taken as realis (within the narrative world), although in non-narrative contexts, past tenses are often used to indicate distance and non-reality (Fleischman 1990:57).[23]

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[23]Note that Fleischman (1990:ch. 6) takes a different view from that of e.g. Hopper (1979a), who defines foregrounded parts of a narrative as those that give the main story line, in contrast to the (backgrounded) parts that give background information or otherwise comment on the story line. For Fleischman, foreground-

Level	Property	Non-Narr. pfv	pfv in Narr.
REFERENTIAL	**time**	+past	+past
	aspect	+PFV	+PFV
	semelfactivity	+semel	+semel
TEXTUAL	**sequentiality**	+linked events	+linked events
	grounding	+foreground	–foreground
EXPRESSIVE	**reality status**	–realis	+realis
	perceived distance	+distant	+distant
	objectivity	+objective	+objective
METALINGUISTIC	**discourse mode**	+diagesis	+diagesis

Table 1.5: Markedness oppositions for the past perfective (based on Fleischman 1990:57)

While the ±foregrounding contrast for narrative vs. non-narrative uses of the past perfective as discussed by Fleischman (1990) holds in many languages, use of the perfective may actually serve a foregrounding role in Totela and other languages.[24] An important feature of many Bantu languages is that, once the situation time of a narrative has been established (through tense marking or within context), speakers may employ special "narrative" markers on most verbs that describe sequential events. Narrative marking takes the place of marking tense on most verbs in narratives. Nurse (2008:120) notes that use of narrative markers "can be suspended and then deliberately reintroduced by the speaker to stress continuity". Narrative markers are very prominent in Totela narratives and are described in chapter 7. Because narrative marking is the "default" case in Totela, when perfective and other tense and aspect markers appear in narratives, those verbs may be considered marked in Fleischman's sense, serving a special purpose worthy of attention and analysis.

Fleischman (1990) notes a number of goals served by switching between tenses in narrative, including marking a shift of "subject and/or of discourse topic" (200), dividing a narrative "into spans centered around a setting or macro-event" (201), helping to "pace" a narrative by expanding or "telescop[ing]" events (210-211), and shifting point of view (216ff).

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edness is a continuum of importance along a variety of measures. BACKGROUNDED parts of a story are more "predictable" and therefore "less salient", and are "not evaluated by various linguistic strategies". FOREGROUNDED story parts are "unexpected" and "frame-breaking" and/or "evaluated by one or more evaluation devices". Because no single criterion can determine whether a story element is foregrounded, Fleischman stresses that grounding contrasts do not involve a simple binary distinction between foreground and background, but operate on a "continuum" (Fleischman 1985:851). Fleischman advocates a "cluster-concept" approach that recognizes that "the linguistic marking of foreground and background involves an interplay of features that may or may not support one another" (Fleischman 1990:184).

[24]In fact, I argue in chapters 3 and 5 that the Totela markers that initially appear to function as "perfective", hodiernal -a- and prehodiernal -a-ka-, are not explicitly perfective markers but may receive perfective readings due to the presence of -a-, which I analyze as marking nuclear completion. For the present purposes, however, and until a detailed analysis has been given, description of the markers as "perfective" is a useful shorthand to illustrate the contrast between Totela and languages in which the perfective is "unmarked" in narrative.

Fleisch (2000), and Seidel (2008) demonstrate that past/perfective/anterior morphology plays such roles in Lucazi (Bantu, K.13) and Yeyi (Bantu, R.41) narratives. While in many ways specific to narrative, these functions are also consonant with the general meanings and pragmatic functions of the markers, and are of use for a holistic understanding of their development and meanings. As Seidel notes, "merely analyzing the tense aspect morphology and [its] semantic scope in terms of single utterances or small texts would lead to a skewed picture of the tense-aspect system" (2008:358).

In her study of the Chisukwa (Bantu, M.202) verb and its morphology, Kershner (2002: 231) notes what seems like a "Remote Past marker" -*ka*- that she analyzes as a marker of the dissociative D-domain, as well as an apparent "Immediate Past" marker -*aa*-, which according to Kershner, "actually marks a preceding comparable time unit with respect to the currently understood time unit"; verbs with -*aa*- are in what Botne & Kershner (2008) call the P-domain.

In Chisukwa narratives, -*ka*- occurs when the narrative depicts an event that is "subjectively distant" or "temporally remote": examples include "fictional stories" and "personal histories" (Kershner 2002:232). In these narratives, -*ka*- marks storyline events, and when -*aa*- (and another P-domain marker, -*ku*-) occur, they give background information. In contrast, narratives about "current events or economic activities [depicted] as subjectively near", -*ku*- is used for storyline events giving new information; -*aa*- is still used for background information (Kershner 2002:232). The behavior of the -*ka*- and -*aa*- markers in narratives leads Kershner to conclude that

> Although traditional studies have assumed that tense can best be represented linearly on a timeline, the evidence from narratives has shown that the organization and semantics of these morphemes is more complex and that *they are only superficially tense-like in behavior* (Kershner 2002:232, emphasis added).

Fleisch (2000) notes that in Lucazi narratives, the use of the Simple Past (-*à*-...-*ÌLe*) typically occurs at scene changes, when there is a "change in the set, either a character coming or going, different location, [or] different time" (Fleisch 2000:286). However, this scene-changing function is also apparently a matter of style. Narratives may also be told using mostly the Consecutive form (-*àkà*...-*à*) or the perfective (-*à*...-*à*), but these are often considered more "clumsy"; with the exclusive use of the Consecutive is even less "literary" than the Perfective (Fleisch 2000:263). Respectively substituting the Perfective and Consecutive for the Simple Past in a sample narrative of consecutive actions resulted in consultant comments that the new texts were "acceptable but bad in style, or sounding as if the text was taken from everyday language (often [hinting also] that the events seemed to have happened in a more recent past)" (Fleisch 2000:264).

The use of the simple past and perfective in Lucazi narrative is also constrained by situation type. Fleisch divides verbs into three main lexical classes: actions, processes, and situations. ACTIONS are "dynamic events ...which are controlled by their logical subjects" (Fleisch 2000:228). PROCESSES, on the other hand, "do not assign the agent role to their subject": they cannot answer the question 'what did X do?' (Fleisch 2000:235). These

include change-of-state verbs and perception verbs, among a few others. Situations are atelic, denoting "positions" or "a character or quality which is attributed to the logical subject of the state of affairs".

In narratives, the Perfective and Simple Past have their most complex interactions with process-type verbs. The perfective, though denoting a situation as an undifferentiated whole, also still "bears some traces of its perfect origin" (Fleisch 2000:285) and may therefore implicate a continued state rather than simple consecutive taxis with process verbs, which involve not a simple action but a state change. This is not an issue with the Simple Past. However, if used with process verbs in event chains, other (non-process) verbs in the chain would also be marked with the Simple Past. This kind of usage does in fact occur, but because the Simple Past also highlights scene changes, as discussed above, the consecutive, rather than Simple Past or Perfective marking, is often preferred in event chains containing process and other verbs (Fleisch 2000:285-286).

Seidel (2008) offers an in-depth analysis of past tenses in Yeyi narrative. The most important of these are the Hodiernal Anterior (h-anterior) and the Prehodiernal Anterior (p-anterior).

The Yeyi Hodiernal Anterior is marked by a null slot where the TAM marker usually appears, a subject marker ending in -a, and final vowel harmony (FVH). Its use has developed beyond the canonical functions of anterior aspect (i.e. a past situation with relevance at reference time). It is a "truly relative" tense in that it can be used to express anteriority to past, present, and future situations, including (as the most common case) the time of utterance (Seidel 2008:298). As predicted by Bybee *et al.* (1994:105), the H-Anterior appears to be grammaticalizing to a simple (hodiernal) past; in many cases "leav[ing] the question of posterior relevance open for the context to differentiate" (Seidel 2008:298). Also, unlike the Hodiernal Imperfective, the H-Anterior carries a clear implication of completion (Seidel 2008:298). Hodiernality overrides the expression of present relevance, so that situations that occurred more than 24 hours prior to utterance time, even if they have a clear resultant state, often cannot felicitously combine with the H-Anterior. Unlike the Perfective, the H-Anterior cannot be used in consecutive taxis.

In non-narrative uses, the H-Anterior has anterior/simple past interpretations. It is preferred to other TAs in everyday discourse, and – unlike narrative tenses – does not denote event sequentiality in consecutive sentences, although the events may be given sequentially. These functions also hold for quoted speech in narratives.

In hodiernal narratives, the H-Anterior is used to introduce episodes, setting the "reference frame" as including the utterance time. After an episode has been opened by the H-Anterior, other TAs are used, "latch[ing] on to the time frame introduced by the anterior, and only needing to specify time as relative to it and other events (Seidel 2008:377).

In prehodiernal narratives, H-anterior forms have at least three functions:

a. *"Relate background events that happened during the current episode"* (Seidel 2008:375): The H-Anterior can be used to depict an event that is temporally prior to the event most recently presented in the narrative, (probably) relevant to the current narrative, and new to the hearer. This function is similar to its uses in everyday non-narrative discourse.

b. *"Indicate episode ends"* (Seidel 2008:375): The anterior can have "text demarcative functions", marking the end of a "cohesive sequence of events" in a portion of the narrative. When occurring at the end of an episode, Seidel posits, the H-Anterior indicates that the episode that is ending and the subsequent one belong to the same, larger chunk of the story being told (Seidel 2008:376-379).

c. *"Relate peak events of an episode"* (Seidel 2008:375): In this function, the H-Anterior is a dramatizing "stylistic device". For example, Seidel describes its repeated use in the climax of a story as creating a division of one narrative "into little units creating a staccato effect that slowly builds up to the final killing [of the matrimonially difficult woman]" (Seidel 2008:377).

These narrative structuring roles, along with its general discourse functions, lead Seidel to propose (following Botne & Kershner 2008) that the H-Anterior involves an "associative tenor relationship. That is, the H-Anterior associates the situation described – either temporally or in terms of continued relevance – with the time of utterance, or to the (prehodiernal) narrative time frame (Seidel 2008:378-379).[25]

Like the H-Anterior, the P-Anterior in Yeyi is apparently grammaticalizing into a general prehodiernal past. It also interacts with lexical situation type, giving a stative-like meaning for Change-of-State verbs. Unlike the H-Anterior, it is not a true relative tense, and cannot be used to mark anteriority to a future situation, even if the verb marked with P-Anterior refers to a situation occurring more than a day before the future reference point. Its discourse functions differ in many ways from those of the H-Anterior, prompting Seidel to analyze it as a marker of *dissociation*. Seidel (2008:380-383) identifies four key roles of the P-Anterior in narrative:

1. *Set the narrative time frame*: Like the H-Anterior does with narratives taking place within the day of the utterance time, the P-Anterior sets the basic time frame of a narrative to a time before the present day, within which other tenses and aspects mark relative time.

2. *Recount events that occurred, and reached completion, before the events currently salient in the narrative*: Seidel (2008:380) notes that such events, in many cases occurring earlier in the narrative, are "recounted as a topical reminder in resumptive fashion". This use may have something to do with the relevance function of the anterior. Seidel posits that use of the P-Anterior also "dissociates the event from the current frame of reference" (Seidel 2008:385).

3. *Structure the text*: The P-Anterior, like the H-Anterior, separates the narrative into chunks. The P-anterior is used to delineate larger sections of the narrative than those marked by the H-Anterior, including "major episodes or breaks" in the narrative, such as "primary protagonist change". Seidel argues that this function is dissociative in that

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[25]For further discussion of the associative and dissociative domains, see 1.2.3.5.

"a new reference frame is opened for a new series of events that might only loosely be connected plotwise to the preceding major episode" (Seidel 2008:385).

4. *Introduce important episodes*: Resumptive use of the P-Anterior may be found at the beginning of major episodes, summarizing the action before it occurs. Seidel analyzes this use as a stylistic device, breaking the respective episodes from previous events and emphasizing their importance. Resumptive P-Anterior use often accompanies a "major shift in narrative style", as well (Seidel 2008:382).

Thus, it appears that in Yeyi, the H-Anterior indicates a kind of psychological nearness, while the P-Anterior creates psychological distance from the situation described, consonant with its temporal function of indicating a more distant past.

Finally, it should be noted that temporal-distance distinctions may be different and even somewhat neutralized in narratives. Kamba (E.50) (Whiteley & Muli 1962, discussed in Dahl 1985:121-122) distinguishes three pasts: a Hodiernal/Immediate past, a Hesternal/Recent (up to "a week previously") Past, and a Distant Past. In narratives, however, two different past tenses are used, and the difference between them is "vaguer": Narrative II " 'connotes a rather less remote time in the past' " than Narrative I (Whiteley & Muli 1962 in Dahl 1985:122).

Kamba and other cases lead Dahl to posit the following generalization:

> If narrative and non-narrative contexts differ with respect to the marking of temporal distance, it will be the non-narrative contexts that exhibit the largest number of distinctions (Dahl 1985:127)

By way of explanation, Dahl posits that since topic time is "by definition" determined by a narrative's context, "any further indication of its location in time will be redundant" (Dahl 1985:127). Also, narratives may avoid the hodiernal past when it could be conflated with the perfect (anterior) (Dahl 1985:127).

1.2.6 Motivations for the study of tense and aspect pragmatics in Totela narrative

Bantu languages provide a near ideal source for both synchronic and diachronic studies of tense, aspect, and mood, their grammaticalization, and their pragmatics. A typical Bantu language will have an extremely developed and nuanced system for marking tense and aspect distinctions, leading Dahl to characterize them as having "the most complex TMA systems in general" (Dahl 1985:185). For example, Bantu languages are known for expressing multiple degrees of past and future reference. Nurse (2008:20-25) lists other Bantu "innovations", such as the "itive" ('go and X'), multiple patterns of negation, a disjunctive/conjunctive focus opposition, a persistive ('still') aspect, and narrative tense.

Furthermore, the approximately 550 Bantu varieties spoken today (Maho 2003, cited in Nurse 2008:2) are both sufficiently similar and sufficiently different to make comparison valuable. For example, most have approximately the same aspect "set", including "perfective,

imperfective, progressive, habitual, presistive, and anterior (perfect)" (Nurse 2008:24), but they are often marked quite differently, and may have very different contextual interpretations and constraints. Additionally, Bantu languages are changing and diverging rapidly: according to Nurse (2008:25), "Romance changes pale in comparison with the changes within Bantu".

Despite their great potential, Bantu TAM systems remain grossly understudied within linguistics. With a few notable exceptions (including Fleisch 2000; Kershner 2002; Seidel 2008), descriptions of Bantu languages tend to give very little information on the actual semantics and contextual uses of tense, aspect, and mood markers. Instead, they offer vague lavels and imprecise English translations. Studies more attentive to meaning and usage, such as those in Seidel (2008), Fleisch (2000), and Botne & Kershner (2008) show clearly that a pragmatic, discourse-based analysis is necessary for full understanding of TAM in these languages; puzzles posed by the data in less-detailed TAM descriptions show this necessity in an indirect way.[26]

Nurse (2008) offers a wide-ranging typological look at tense and aspect marking in Bantu, both diachronic and synchronic, based on a survey of over 100 Bantu languages, sampled from each of Guthrie's (1967-1971) zones. Again and again in the book, Nurse's semantic reconstructions are handicapped by inadequate semantic data in descriptive works on Bantu languages. They also strongly suggest, however, that the semantic and pragmatic uses and development of tense and aspect marking across Bantu comprise an exciting and dynamic field, and, if studied in depth (as in Fleisch 2000; Kershner 2002; Seidel 2008) could lead to an understanding of tense and aspect in general that would be both richer and somewhat different from that of the field today. This study is partially in response to this situation: It is an attempt to describe in detail, for one language, what kinds of functions are privileged in the tense and aspect marking system.

Totela is a typical Bantu language in that it has a vast array of tense- and aspect-expressing morphemes and constructions. These may often (if not always) be given a more explanatory and unified analysis when their discourse-structuring functions are taken into account; in many cases, such as the -*ite* suffix (discussed in chapter 6), pragmatic functions appear to trump temporal specifications.

I had both practical and personal motivations for focusing particularly on narratives in my study of Totela. A practical reason is the availability of data. While extended and intensive elicitation sessions with native speakers were a crucial element of my research, they were in some ways imperfect sources of information on Totela, largely because of the unfamiliarity of the interview situation for many of the speakers. Also, the artificiality of elicitation can at times result in data and judgments that are likewise not altogether natural and may even be of questionable trustworthiness.

Narratives, on the other hand, are a natural and integral part of life in many communities, although in recent times the art of storytelling is practiced less and less. Stories, both newer and those apparently passed down through generations, are an important form of

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[26]For a description of some of the discourse functions of TAM markers in the sources mentioned, see Crane (2008) and references cited within.

entertainment and of reinforcing social ties. Days in a village may be long, hot, and full of hard labor, but at night, people can gather around the fire to relax, talk, laugh, and tell stories together. These times were often the highlight of my day in Africa, and I have developed a deep love for the stories we recorded together on those nights, with their magic and ogres, their often bizarre and even gruesome story lines, their wicked, virtuous, heroic, and abused characters, their melodies and harmonies, and the sense of community when everyone listened and sang along.

In addition, the longer form of narratives, and the inherent need to structure them in some way, makes them of great use in understanding the functions of tense and aspect marking within discourse, which in turn sheds light on the basic semantic and pragmatic nature of the markers.

Finally, I feel compelled to record these stories and to share them, both as a service to the community, who value their preservation, and because of their rich inherent artistry. I hope that the readers of this study will not only profit from whatever theoretical gains may be made by examining the use of tense and aspect in these stories, but will also enjoy the excerpts from the stories themselves, which speak to the creativity and good humor of my consultants and their families.

1.3   Dissertation conventions

This section describes some of the terminology and analytical tools used throughout this study, including situations (§1.3.1), situation type (§1.3.2), topic time (§1.3.3), perspective time (§1.3.4), discourse domains (§1.3.5), some tools of narrative analysis (§1.3.6), and clarification of other general writing conventions (§1.3.8). (A list of glosses may be found on page xi.).

1.3.1   Situations

The label "situation" is employed as a neutral term, encompassing both EVENTS (spatio-temporal particulars) (Davidson 1967) and STATES. Situations are also referred to as EVENTUALITIES in the literature (see Bach 1986). This study treats SITUATIONS abstractly, based on how they are treated in the language, and not by their real-world manifestations. That is, a situation for these purposes is not a spatio-temporal particular or state as it obtains in the world, but the linguistic treatment of what is perceived or imagined of these events and states. SITUATION STRUCTURE or EVENT STRUCTURE refers to the composition of PHASES that comprise an event, discussed in 1.3.2. When I refer to e.g. "change-of-state verbs", it may be understood as shorthand for "verbs that refer to change-of-state situations".

1.3.2   Situation type

Vendler (1957) famously noticed that different verbs behaved differently with the same tense/aspect markers, and categorized them into various *Aktionsarten*, or situation types, in-

cluding activities, accomplishments, achievements, and states. Smith (1997) added semelfactives to the list.

The verb-type classification of Vendler (1957) (as well as the augmented one in Smith 1997) is problematic for studies of Bantu languages. Rather than having a basic telic/atelic distinction, Bantu languages in general appear to divide verbs differently. This is due to a distinction between NON-INCHOATIVE verbs (roughly, though not exactly, corresponding to Vendler's states, activities, and accomplishments and INCHOATIVE verbs, which encompass many of Vendler's achievements and other verbs that express "a change of condition or location of the experiencer or patient", including a "change or transition from one state to another" (Botne & Kershner 2000:165). The contrast between inchoative (i.e. change-of-state) and durative (i.e. non-change-of-state) verbs has been noted by many as primary in the categorization of Bantu verbs (see e.g. Botne & Kershner 2000; Seidel 2008; Nurse 2008). In this study, these two primary categories will be referred to as CHANGE-OF-STATE and DURATIVE.

In recent years, linguists have introduced more fine-grained categorizations (e.g. Kershner 2002; Seidel 2008). For example, Seidel (2008), who expands upon Kershner (2002), divides durative verbs into "instantaneous" (corresponding to Smith's semelfactives) and "extended" situation types. Change-of-state verbs may be one of four types: "punctive achievement", "inceptive transitional", "terminative transitional", and "resultative". Categorization is based on a number of tests of which phase of a verb's event structure tends to be focused in various contexts.

Although certain verbs tend to be categorized with change-of-state verbs quite frequently across Bantu (see Nurse 2008:97 for a partial list of what he terms "stative" verbs, which include change-of-state verbs)[27], more narrow categorizations are greatly variable across and even within languages, as evidenced by the lists and dual classifications in Seidel (2008) and Kershner (2002).[28] Because this study is intended not as a detailed investigation of Totela situation type semantics, and because fine-grained categorizations do not provide further insight into interpretive variations for single verbs, I employ the broader change-of-state/durative classification and argue that for most tense/aspect markers it is pragmatics that determines the particular temporal interpretations beyond the markers' most basic temporal specifications.[29]

Botne & Kershner (2000:165-166) offer basic models of temporal structure for situation types, including three possible phases (and possibly more). The three main phases, akin to

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[27]In Totela, what I consider "true" stative verbs, e.g. 'want', tend to pattern with duratives; however, it may be noted that membership in the true stative vs. change-of-state categories varies across Bantu for verbs such as 'want'. Nurse's classification, then, may be based on typological generalizations, while the classification in this study is language-specific. Also, Nurse does not clearly distinguish between stative and change-of-state verbs in his list.

[28]Botne (2003), among others, shows that this is generally true for situation type classifications cross-linguistically. For example, the verb 'to die' may have a great variety of event structure construals (Botne 2003).

[29]It should be noted that some verbs, especially perception statives, may vary across even these two broad categories. Still, the distinction is a useful one in approaching possibilities for temporal interpretations. Category variance of particular verbs is discussed at various points throughout the study.

the components of syllable structure, are the onset phase, the nuclear phase, and the coda phase. All situations have at least a nuclear phase, which Botne & Kershner characterize as "constituting the characteristic and prominent feature of the event" (Botne & Kershner 2000:165). The coda consists of a final (often resultant) phase or state, if such a phase exists (as it often does for telic verbs, and always does for change-of-state verbs), and the onset phase, which again may or may not be included in a situation's temporal structure, is defined as a preliminary phase.

Change-of-state situations and durative situations, according to Botne & Kershner (2000: 166), differ primarily in how they treat the situation nucleus. With durative verbs, the nucleus is generally extended (except in the case of punctual/semelfactive verbs), and the onset and coda phases may or may not be part of the representation, as in figure 1.7. O represents the onset phase, N the nuclear phase, and C the coda phase; parentheses indicate optionality.

$$(O) \boxed{ N } (C)$$

(from Botne & Kershner 2000:166)
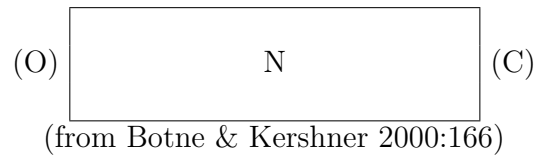
Figure 1.7: Durative situation event structure

In contrast, change-of-state verbs have a punctually-construed nucleus, an obligatory coda phase (the entered state), and an optional onset phase. A schema is shown in figure 1.8.

$$\boxed{(O) \;\Big|\; C}$$
N

(from Botne & Kershner 2000:166)
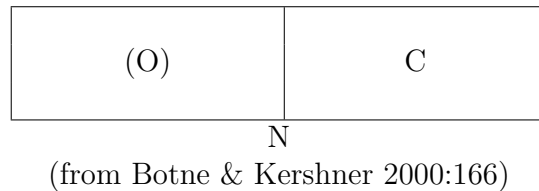
Figure 1.8: Change-of-state situation event structure

An example of a change-of-state situation with an onset phase is -*bomba* 'get wet, soak', where the soaking process has clear temporal duration, although the duration may vary from e.g. the time of a splash of water to clothing, to e.g. the several days' soaking in cassava preparation. The onset phase for situations like -*komokwa* 'be/get surprised' or -*taba* 'become happy' is less clear, as the situations leading to surprise and happiness are less well defined: A state of happiness may not even arise from external causes. Schematic event structure representations, in terms of Onset, Nucleus, Coda structure, are given later in this section for these verbs and for a pair of durative verbs.

Some examples of the major categories are listed in (10) and (11).[30]

(10)   Durative verbs:
   a.   Statives:
      i.   *-pona* 'live'
      ii. *-li* 'be'
      iii. *-saka* 'like, love, want'
   b.   Perception statives:
      i.   *-bona* 'see'
      ii. *-suwa* 'feel, understand, hear'
      iii. *-hupula* 'think, remember'
   c.   General duratives:
      i.   *-yaaka* 'build'
      ii. *-nenga* 'dance'
      iii. *-iza* 'come'

(11)   Change-of-state verbs:
   a.   *-iziba* 'come to know'
   b.   *-bomba* 'soak, get wet'
   c.   *-komokwa* 'be surprised'

Because statives and perception statives behave somewhat differently than general duratives, they will generally be treated separately in this study. "Duratives", when not specifically noted to be the umbrella category covering statives and duratives, should be understood to refer to general duratives. Perception statives and other statives will be labeled as such.

In this study, internal temporal structures associated with situation types (and particular verbs) are schematized based on the insights in Botne & Kershner (2000). An example is given in figure 1.9 for the root *-samba* 'bathe'. The thick solid lines represent (relatively) clear starting and ending points. The onset (O) is depicted as punctual (although there may also be preparatory phases, not necessarily encoded in the verb); the same holds for the coda (C). Bathing typically has a result state of cleanliness, but it is not an inherent or necessary part of the situation's temporal structure. The main phase, then is the nuclear phase (N), consisting of the bathing activities themselves. In figure 1.9, the onset and coda are represented in parentheses, because temporally extended preparatory and result phases are not part of the inherent event structure.

Similarly, figure 1.10, with *-yaaka iñandu* 'build a house', represents a telic situation with a tangible result. This event structure has an inherent completion point and (typically) a coda phase, typically construed as having more-or-less permanent duration, although this is not necessarily the case in the actual world. Thus, the onset phase (O in parentheses) is

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[30]Many verbs are more difficult to classify than those listed in (10) and (11). For in-depth studies of situation type in Bantu, see (e.g.) Kershner (2002) and Seidel (2008).
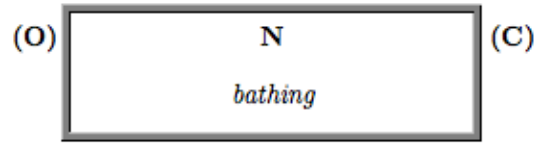
Figure 1.9: Event structure for -*samba* 'bathe'

optional, but the coda phase, in which a house has been built, is a part of the event structure. Of course, this coda phase may, in some cases, never be reached.
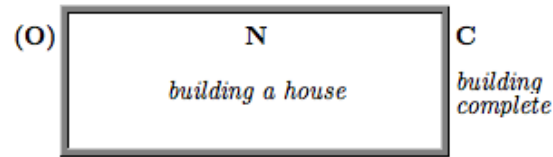
Figure 1.10: Event structure for -*yaaka iñandu* 'build a house'

The distinction between telic and atelic duratives is, in most cases, not crucial for discussions in this study, although the two subtypes will sometimes be referred to in discussions.

Change-of-state verbs, as in Botne & Kershner (2000), are represented somewhat differently. An example is in figure 1.11, for -*komokwa* 'get surprised'. Here, the onset phase is not inherently part of the situation, and is represented by wavy lines.[31] A punctually-construed nucleus occurs at the onset of the coda state of being surprised. Wavy vertical lines at the nucleus indicate that "complete" entry into the state may be somewhat more subjective than is commencing an activity such as building or bathing. Similarly, there is no clear exit point from the coda state, so the end of that phase is also depicted with a wavy line.
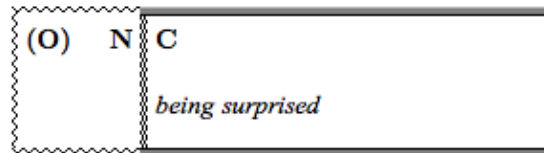
Figure 1.11: Event structure for -*komokwa* 'get surprised'

A second kind of change-of-state verb is depicted in figure 1.12 with -*bomba* 'get wet, soak'. As in figure 1.11, the nucleus is construed as basically punctual, subjectively defined

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[31]With verb types such as these, where the situation proper seems to begin with the nucleus, the onset phase is not included in diagrams in this study.

by the speaker's perception of when soaking is complete. Unlike figure 1.11, however, the onset phase is also defined, with a clear beginning.
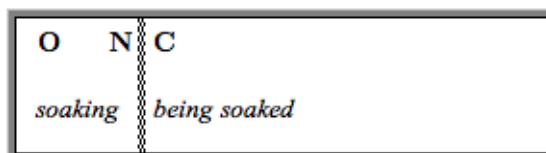
Figure 1.12: Event structure for -*bomba* 'get wet, soak'

The situation schemata in figures 1.9–1.12, along with other pictorial representations throughout this study, are meant neither as depictions of how situations obtain in the actual world, nor as detailed representations of mental construals of the situations referred to. Rather, they are intended as a linguistic analysis the interplay of situation type and Totela's tense and aspect marking system – which is of course related, but not identical to, both situations in the actual world and speaker mental representations of them.

It will be seen throughout this study that situation type is related to, but not entirely determinative of, temporal interpretation of situations with various tense and aspect markers.

1.3.3 Topic time

In general, the notion of TOPIC TIME, defined in Klein (1994), as the "time span" of a situation that is referred to, is not needed in the discussions of completion and dissociation in chapters 3–5. In discussions of aspect, however, "topic time" is used to indicate the phase of a situation selected for reference (see 7.3 for further discussion). I also argue that derived perspective times may be introduced within established topic times.

Topic time is also used in many discussions of TAM-related literature.

1.3.4 Perspective time

Condoravdi (2002) introduces the term PERSPECTIVE TIME to indicate the time from which a proposition's truth value is assessed (see also Cover 2010:50). Typically, this time is equivalent to utterance time; for example, a person making a claim about the future or past is assessing its probability or prior occurrence from the perspective of the time of making that claim. However, perspective time may not always be the same as utterance time. Condoravdi (2002:62) illustrates shifting perspective times with metaphysical modals in the past, as in the counterfactual in (12).

(12) At that point he might (still) have won the game, but he didn't in the end (Condoravdi 2002:62, ex. 7).

In (12), the possibility of winning is not evaluated at the time of utterance. Instead, perspective time is shifted to a point in the past at which there still existed possible worlds in which the game was won by the subject.

(Cover 2010) expands Condoravdi's work, applying it in the analysis of relative tense in Badiaranke, an Atlantic language of Senegal, Guinea, and Guinea-Bissau.

In narratives, where quoted speech is represented from the perspective of the characters, and not of the narrator. Also in narratives, the use of e.g. present forms may be "present" with respect to the narrative-internal timeline, rather than the external timeline of the narrator, as in (13).

(13)   Then we sat down to eat. **There's no food!**

Building on Condoravdi's work and Cover's (2010) application of it in Badiaranke, I assume that "relative" tenses, and temporal clauses, may also establish secondary perspective times, also called "reference" times (e.g. Comrie 1985), as in (14).

(14)   When we arrived, he had (already) eaten our muffins.

I argue in the coming chapters that perspective times are not fixed to utterance time in Totela, and may be shifted by various mechanisms.

In diagrammatic representations in this study, perspective time is represented by a dotted vertical line running "across" the timeline, and sometimes through a phase of the situation itself. It is labeled PT. The timeline itself runs from left to right "through" the situation referenced, and is represented by a dotted arrow. In figure 1.13, PT runs through a nuclear-internal part of the situation, so the situation is represented as obtaining at perspective time, which would result in a present time reading in the default case.
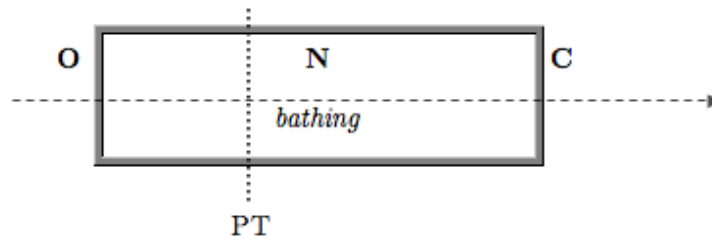
Figure 1.13: Present time reading with -*samba* 'bathe': Perspective time is nucleus internal

1.3.5   Discourse domains

As discussed in 1.2.3.5, Botne & Kershner (2008) argue that discourse can be understood in terms of domains, a P-domain of association, or inclusion, including the here-and-now reality of the current discourse. Utterances may also invoke dissociative domains (D-domains) of

	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 1.6: Cognitive domains in Botne & Kershner (repeated)

exclusion from the current discourse "world". Various characteristics of the domains are schematized in table 1.6, repeated from (1.2).

Botne & Kershner define tense as a temporal relation between the currently privileged domain and the D-domain. Their definition is adopted in this study. However, because this definition does not represent the common usage of tense across the literature, when "tense" is used in the sense of Botne & Kershner (2008), it is explicitly noted as such. In quotations from the literature and previous analyses, tense may be understood as marking the relationship between utterance time (or, more broadly, perspective time) and situation time – or, more precisely, to topic time, the time period to which the utterance refers (as in Klein 1994). These uses are also noted when they occur. In general, the notion of cognitive domain will be useful in discussing and understanding several markers of distant past and future (see chapter 5). Other markers are analyzed as non-domain-shifting, and the concept of domain will also be important in these chapters (chapters 3, 4, and 6).[32]

Projection into a dissociated domain is represented in this study as in figure 1.14. The P-domain contains perspective time (PT); the situation (here, dancing) is represented as obtaining in a domain that is separate from the cognitive world of the P-domain. With prehodiernal -*ka*-, as in the example given in (15) and illustrated in figure 1.14, this world (D-domain) is located in the past of perspective time, conventionalized pictorially by location upwards from and to the left of the P-domain. A timeline also runs through the D-domain, and situations can be ordered with respect to each other. A more complete picture would also represent a timeline from the D-domain to the P-domain, and beyond, but this is not included for the sake of greater simplicity.

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[32]In addition to discussing the relationship between cognitive domains, Botne & Kershner (2008) also discuss two major cognitive conceptualizations of a time: TIME is a PATH, and TIME is a STREAM, where, with the latter, the Ego may either be moving in the stream of time, as it were, or the Ego may be stationary in the stream of time, with events moving "past" the Ego, which may be facing towards either the past or the future. (Botne & Kershner 2008:147-150). This conceptual categorization may ultimately prove useful in the understanding of Totela tense and aspect, but is not directly relevant for this study, which focuses on the semantic and pragmatic characterization of tense and aspect marking and its role in structuring information.

(15) *ndàkànèngà*

nda-ka-neng-a
1SG.CMPL-PREHOD-dance-FV

'I danced' (yesterday or before)
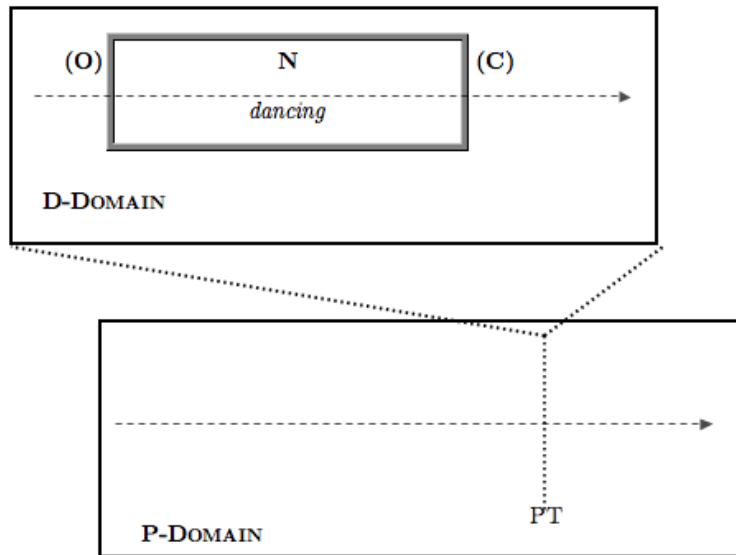
Figure 1.14: Representation of dissociated domains

When a dissociative domain is not invoked, situations are represented as being included (partially or totally) in the P-domain, as with the utterance in (16) represented diagrammatically in figure 1.15.

(16) *ndànèngà*

nda-neng-a
1SG.CMPL-dance-FV

'I danced' (today)

1.3.6 Tools of narrative analysis

The analysis of narratives and other texts in this study employs several of the tools described in 1.2.5.2. Following Labov & Waletzky (1967), I take abstract, orientation, complicating action, evaluation, resolution, and coda as basic building blocks of narrative. In quantitative
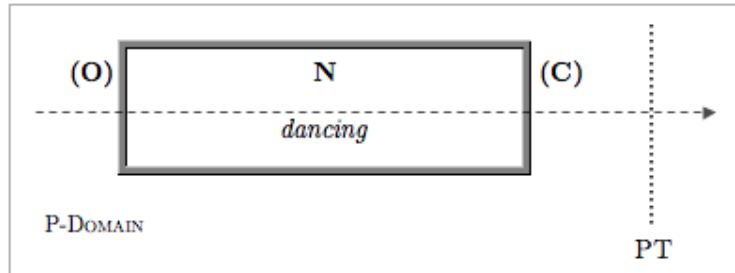
Figure 1.15: Representation without domain dissociation: P-domain

analysis, I attempt to systematically identify the role of each narrative clause accordingly, and I explore these roles qualitatively as appropriate. I label clauses according to their narrative clause type of narrative, restricted, and free. In my quantitative analysis (see 1.4.2), I collapse restricted and free clauses into a single category, because they both differ from narrative clauses in being able to be displaced without changing the basic storyline. Also used in narrative analysis are Fleischman's 1990 four "levels of the linguistic system" in narrative, including referential, textual, expressive, and metalinguistic.

I use the term EPISODE to describe narrative "scenes" or subparts, which I have subjectively identified within each narrative, determined by which subparts comprise their own units. Each episode may be considered a mini-narrative in itself, with a beginning, middle, and end. Fleischman (1990:199-200) notes that

> Even for minimally complex narrative the linearization [of chosen narrative material] is not a simple matter of packaging information into standardized units of action and lining them up seriatim along a time line like a string of beads ... [T]he beads of narrative are not all uniform; some are more salient than others ... Moreover, they are not spaced evenly along the string; typically they are grouped in clusters corresponding to the "episodes", "scenes", and "macro-events" into which narratives are subdivided, the boundaries between these units being marked by linguistic signals (Fleischman 1990:199-200).

Fleischman further notes that tense and aspect categories play a major role in marking these boundaries. This observation proves true both in qualitative and quantitative studies of Totela narrative. Other devices that mark episode boundaries in Totela may include prosodic breaks, and the use of interjections, though neither is investigated systematically in this study.

1.3.7 Examples and sources

In examples, the main forms discussed in the chapter (or, in chapter 2, the section) at hand, are underlined throughout to make them easy for readers to locate. Other phenomena under

immediate discussion may be bolded if they occur within longer examples, especially if they are not entirely straightforward to locate.

Examples are first given in unsegmented versions with tone marking when available. It is not given with many examples from 2006 and 2007, as the tone data is less reliable; I also do not mark tone on revisions of narratives, as the practical orthography, adopted from Lozi, which is most familiar to Totela speakers, does not include tone marking.

The orthography is as described in 2.2.7.[33] These are followed by morpheme segmentation, which not marked for tone unless the tone pattern is explicitly under discussion. Morphemes are glossed using a modified version of the Leipzig Interlinear Glossing conventions[34] and are followed by a free translation in single quotes. ' When an example may have two interpretations, they are indicated in curly brackets, separated by a slash in the free translation, e.g. **'I {am reading} / {have read} two books.'** Curly brackets also indicate alternative possibilities in the source language.

Sources of Totela examples are cited giving the variety (ZT for Zambian Totela) and the year. Examples from elicitation (**Elic**) include the notebook page number, and, if judgments vary, the speaker's initials. An example is **ZT2007Elic39**. When utterances and interpretations are extremely basic or common, specific citations are not given.

Narrative examples are labeled with the variety and year, followed by the narrative disk letter and recording number, the narrator's initials, and, when the narrative has been digitally segmented, the numbers of the segments in which the example occurs. When possible, a name for the narrative is also included in italics. An example is **ZT2009NarrC6.WS.6,** **_Tenga, Tenga_**.

Some examples are taken or adapted from the questionnaire in Dahl's (1985) crosslinguistic study of tense, aspect, and mood. These are labeled as such, and the question numbers are indicated, e.g. **Dahl 1985:Q156**.

Most examples are from Zambian varieties of Totela, which are the main focus of the present analysis. When appropriate, examples from Namibian Totela varieties may also be used. These are labeled with **NT** rather than **ZT**. When the word "Totela" is used without any more specific designation, it may be assumed to refer to the Zambian variety.

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[33]As noted in 2.2.7, the writing system is similar, but not identical, to the system used for writing Lozi. Vowel coalescence is not transcribed when it occurs across words, but it is transcribed within words (e.g. *àmà-ìnzì* is written *àméènzì*).

Vowel length is represented as two consecutive vowels (e.g. *àà*). Long vowels are only represented as long in the orthography if they are potentially contrastive or if they are the result of vowel coalescence; e.g. *òkùzììkà* 'to bury' and *èlîìnsò* 'eye' but *zîmbà* 'swell! (imp.)'.

Because glides (*w* and *y*) are generally pronounced between non-homorganic vowel sequences, such sequences are written with glides. Note that there may be some variation in production. See chapter 2 for further details.

[34]See page xi for my glossing conventions and http://www.eva.mpg.de/lingua/resources/glossing-rules.php for the Leipzig Glossing Rules (last checked 5 May 2011).

1.3.8 Other conventions

Following Comrie (1976) and Dahl (1985) I use capital-initial words to indicate the names of language-particular tense and aspect categories, e.g. the Simple Present in English. Lowercase forms indicate more general categories.[35]

Bantu languages are referenced together with their Guthrie codes, from a partially genetic and partially areally based system for the classification of Bantu languages. The Guthrie codes cited in this study were introduced in Guthrie (1967-1971) and updated in Maho (2009). Guthrie references consist of a letter, indicating the language "zone", followed by a number, together creating a unique reference to a Bantu variety. The first digit of the number indicates the language "group" within the larger zone. For example, the reference number for Totela of Zambia is K.41(Maho 2009:66).[36]

Abbreviations used are listed in table 1.7. Abbreviation meanings are also indicated throughout the text as they are introduced.

BB	Bantu Botatwe
C	Coda
D-domain	Dissociative Domain
H	High (Tone)
HTA	High Tone Anticipation
IS	Information Structure
L	Low (Tone)
N	Nucleus
NT	Namibian Totela
O	Onset
PB	Proto-Bantu
PBB	Proto-Bantu Botatwe
P-domain	Primary (Associative) Domain
TA(M)	Tense, Aspect (and Mood)
ZT	Zambian Totela

Table 1.7: Abbreviations used

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[35]In fact, Dahl (1985:34) distinguishes three levels: language-specific, "universal" semantic, and cross-linguistic grammatical categories. Following Comrie (1976) and general practices, in this study I only distinguish language specific and "universal" semantic categories, as differentiating between cross-linguistic grammatical categories and universal semantic categories does not significantly add to the analysis.

[36]I choose to write the references with a dot between the letter and the number, although this is not obligatory.

1.4 Methodology

1.4.1 Data collection

The main data for this study were collected over the course of three research trips to Zambia and Nambia. The first trip, in 2006, focused primarily on a Namibian variety spoken in Makusi in the Caprivi Strip, although I was also able to gather some Zambian data in a short trip to Malabwe under the auspices of Kathryn deLuna's research project on the historical linguistics and historical resource use of the Bantu Botatwe, a linguistic subgrouping to which Totela belongs. The second trip was from May to July of 2007, and focused primarily on Zambian Totela as spoken along the Kweemba river in Likemwa and surrounding villages near Nawinda, as well as Samisisi, in the Western Province. Some Namibian data were also gathered in the Caprivi Strip in Sikubi. The longest trip to date spanned from early March to late June of 2009 and was carried out entirely in Zambia, focusing on other Kweemba river areas surrounding the small village of Nakwenda.

Consultants were mostly speakers from a generation who had grown up speaking primarily Totela, although also proficient in Lozi, the lingua franca of Zambia's Western Province, which is rapidly overtaking Totela as the language of primary communication. Often, the parents of such speakers were reportedly more proficient in Totela than in Lozi, and their children were more proficient in Lozi. A small amount of elicitation was carried out with younger speakers whose primary language was Lozi but who still communicated proficiently in Totela; their judgments and examples were checked with older when there was any question of Lozi influence. Younger speakers were very active in transcription and analysis of narratives and often participated in group elicitation sessions, as well.

On the trips, I lived in Totela-speaking villages[37] and communicated primarily in Totela. I used mixed data collection practices, including traditional one-on-one or group elicitation, narrative collection, other discourse collection and analysis, and naturalistic participant observation methods. After the first trip, work was carried out almost exclusively monolingually, occasionally using English, or, more often, Lozi as a language for translation. I was assisted with Lozi translations by teachers in Sichili. During the first trip I worked either with speakers proficient in English (in Namibia), or via an English-Lozi translator (in Zambia).

The benefit of mostly monolingual research is the minimizing of influence from contact language[38] and the chance for more naturalistic interactions. A potential drawback is the lack of native-speaker intuitions for translations on the part of the researcher. To minimize these as far as possible, I employed Lozi translation when in doubt, and tried to provide rich contextualization to assess pragmatic contributions.

Many narratives and other discourse genres were collected and analyzed as part of the research, as well. The examples used in this study were virtually all transcribed along with native speakers in the villages, often with the help of the recorded speakers themselves.

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[37]To some degree or another, all villages visited were predominantly Lozi-speaking, but native and practicing Totela speakers could still be found.

[38]Although I have no evidence of this, the possibility that my non-native Totela played an influencing role should not be ignored.

Translations into Lozi were also provided by native speakers of Totela and Lozi, and these were reviewed with Lozi teachers in Sichili.

A particularly fruitful method for narrative analysis was community-based narrative revisions, in which a team of speakers and I discussed and edited recordings of oral narratives for future written publication. Consultant comments on language use, and comparison of the original documents with their revised versions, provided invaluable insights into regular and special uses of tense and aspect marking. More on this methodology and its results are detailed in Crane (2009).

1.4.2   Statistical analysis: multiple logistic regression

The main statistical tool employed in this analysis is MULTIPLE LOGISTIC REGRESSION (MLR).[39] MLR is used to estimate the relationship between one or more PREDICTOR VARIABLES – also known as "independent" variables – and a dichotomous (or otherwise categorical) OUTCOME VARIABLE – sometimes called a "dependent" variable. For example, one might ask a question like, "What is the relationship of overt character reference and proximity to a major break in the story line to whether a verb is inflected?" In this model, overt character reference and story-line-break proximity would be the predictor variables, and the outcome variable is whether the verb is inflected. Inflection is a dichotomous, y/n outcome. MLR returns a formula, based on the predictor variables, for predicting the probability that one of the two outcomes (e.g. the verb *is* inflected) will be found in each particular case.

In a logistic regression formula, each predictor variable has a coefficient based on the ODDS RATIO for that predictor. An odds ratio is related to the concept of ODDS of group membership: the probability of membership in a "target group" (e.g. inflected verbs) divided by the probability of non-membership in that group. The odds ratio estimates the change in odds of outcome group membership for a one-unit change in the relevant predictor variable. Odds are used in logistic regression because the outcome is binary, and the relationship between predictor variables and the outcome will necessarily be non-linear.

Logistic regression relies on several important assumptions. First, the outcome variable must be binary: there must be two distinct and non-overlapping outcomes.[40] Second, outcomes must be statistically independent: each case must have one, and only one outcome. Similarly, the outcome variable categories must be "mutually exclusive" and "collectively exhaustive". In the example case mentioned above, no verb can be both uninflected and inflected (mutually exclusive), and all verbs must be either inflected or non-inflected (collectively exhaustive).[41] The most important – and the most difficult to fulfill – assumption of logistic regression is that the model is CORRECTLY SPECIFIED: all of the predictor variables that play a significant role in predicting the outcome variable *must* be included, and *no*

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[39]The following discussion is based largely on information from Wright (1995)

[40]More than two outcomes are also possible, in polytomous regression models; these outcomes must, however, still be categorial.

[41]An example of a non-mutually-exclusive outcome is theta roles: a verb can assign both agent and patient theta roles. Coding for "agent" and "theme" also fails to be collectively exhaustive, since other theta roles are possible.

superfluous variables may be included. This assumption is important because failing to include relevant variables may result in a skewed model, as will including variables that are not relevant. The assumption is difficult (in fact, impossible) to fulfill because *every* significant factor must be included in the model, and it is always possible that something important has been overlooked. However, models that are well tested, deal with sufficient sample sizes (ideally, at least 50 cases for each predictor variable), and based on sound theory, are fairly likely to produce reliable indications of the relationship between various predictors and the outcome.

Multiple logistic regression is used in this study in order to obtain a quantitative description of the relationship between various attributes of the verbs used and their placement within the story, and the use or lack of inflection and of particular tenses and aspects. It is hoped that a quantitative analysis of a significant corpus of data will strengthen – or, possibly, provide some evidence against – the important, though sometimes more impressionistic, results of qualitative studies.

For my quantitative study of Totela tense and aspect marking in narrative, I extracted each verb token from a set of narratives, and coded it for a number of factors, including those listed in table 1.8.

STYLISTIC	speaker; story
NARRATIVE-RELATED	narrative clause type; narrative structure role
STRUCTURAL	position in story; position in episode; position with relation to other story elements, e.g. songs, quotations, character reference, interjections; change of character; change of location
LEXICAL	verb root/stem (too specific to test); situation type; valency; theta role structure; subject agency
SYNTACTIC	part of verb sequence (especially common collocations), clause type, non-SVO word order, priming effects (i.e. whether preceding verb is inflected

Table 1.8: Potentially predictive variables coded for logistic regression

I then carried out logistic regression using the statistical software R to determine which of the factors are significant in predicting verbal inflection, rather than narrative marking. I also tested whether a model could predict specific kinds of tense/aspect markers, when the number of occurrences was enough for statistical accuracy. Some results are discussed in chapter 7 and at various points throughout the study.

1.4.3 Limitations

Although I carried out the research and analysis for this study to the best of my ability, and I believe that the results are robust, the work is subject to several important limitations. First, I am not a native speaker of Totela, and though I gained functional proficiency during my research trips, interpretations and translations have been passed through my non-native filter. I have tried to mitigate this effect through the use of Lozi (for which dictionaries and grammatical descriptions exist) and as many contextual examples and judgments as possible, but the possibility for error and misunderstanding remains. The benefits of largely monolingual research also come with limitations, as well. In particular, certain forms and concepts that would have been relatively easy to elicit through translation were elusive – sometimes maddeningly so – in monolingual elicitation. Thirdly, the translation of narratives can never capture the full flavor of the original; reduction of an oral art form to writing also comes with great loss. Again, narrative translations to English are largely my own, with the help of extensive explanation from native speakers and translation into Lozi; they may be colored by my interpretative lenses. A final limitation to mention with regard to narratives is the imperfect nature of transcription. Although virtually all transcriptions were done together with native speakers, perfect transcription of oral discourse is a near-impossible goal (Stephen Levinson, p.c.).

It is my hope that some day further work will be carried out with and by native speakers of Totela and related languages to fill in the gaps of this study, and to correct any errors, all of which, of course, are my own.

1.5 Results and outline

This study investigates in detail the semantic and pragmatic functions of a selection of tense and aspect markers in Totela, based on their uses and temporal interpretations in elicitation contexts and everyday discourse, and on their occurrences in narrative. The five markers treated at length in this study are listed in table 1.9.

Marker	Analysis	Chapter
-a-	COMPLETIVE	3
-la-/-Ø-	NON-COMPLETIVE	4
-ka-	DISSOCIATIVE PAST	5
na-	DISSOCIATIVE FUTURE	5
-ite	STATIVIZER/RELEVANCE	6

Table 1.9: TA markers discussed in detail

The choice of these five TA markers for detailed analysis was based on a variety of criteria. First, they seem to be central to the Totela system, occurring frequently in discourse and (in most cases) in narratives, as well. They therefore seem to represent at least some of the

distinctions privileged in Totela's TAM system. I argue that privileged functions include nuclear completion, dissociation, and relevance.

Second, their temporal analyses are not straightforward. Completive -*a*-, with some verbs, may be interpreted as describing either a present state or a past situation. Non-completive -*la*- (along with null marking) has both present and futurate uses. Dissociative markers -*ka*- and *na*- typically occur when verbs refer to situations that held (respectively) at least a day before or after perspective time, but they are not always required in these contexts. Stativizing -*ite* has perhaps the most complex principles of temporal interpretation of all, and cannot be explained with a strictly temporal analysis. Therefore, simple analyses of these markers as representing (e.g.) past or present tense, is insufficient. Instead, a more holistic framework, such as that of Botne & Kershner (2008), discussed above and employed throughout the study, is required.

Third, the markers (especially -*a*-, -*la*-, and -*ka*-) are important in the structuring of narratives. Their narrative uses shed further light on their general meanings and functions, and their information-structuring uses, and help to advance the argument that tense and aspect marking is information structuring in its basic nature.

Finally, the markers selected, for the most part, seem to have interesting grammaticalization paths and can be found in related languages, allowing for valuable cross-linguistic comparison and as a result, it is hoped, a greater understanding of how tense and aspect functions in Bantu, what distinctions are important and robust, and whether grammaticalization paths follow those proposed for language in general (as in, e.g., Bybee *et al.* 1994).

The remainder of the study is organized as follows:

Chapter 2 gives a basic overview of Totela and its history, including sociolinguistic information and a very basic grammatical sketch of its phonology, morphology and syntax, from both a synchronic and a diachronic perspective.

Chapter 7 describes in greater detail Totela's system of tense, aspect, and mood marking, discussing major inflectional and periphrastic forms.

Chapter 3 describes the -*a*- form, analyzing it as a marker of nuclear completion, resulting in past interpretations with durative verbs, and either past (dynamic) or present (stative) with change-of-state verbs, which have a punctual nucleus followed by a coda state. The concept of nuclear completion appears to be very important across Bantu, and is likely marked in many languages, although few grammars describe it explicitly as such (but see e.g. Kershner 2002; Botne 2010). In narratives, the notion of completion is exploited in episodic structuring; it appears frequently at episode boundaries, indicating completion of the previously narrated episode and the onset of the next.

Chapter 4 describes counterparts to -*a*-, namely -*la*- and the lack of overt tense and aspect marking. I argue that lack of completion marking indicates nuclear *non*-completion with these forms, which may refer to situations ongoing at or completely in the future of perspective time. The distinction between -*la*- and -Ø- is related to focus, although focus effects may be diminishing in Totela. Non-completion is also used in narrative pacing, indicating continuation of an episode; it may also shift the point of view from story-external narrator perspective to story-internal character perspective.

Chapter 5 describes two major markers of "distal" temporal relations, prehodiernal -*ka*-
and posthodiernal -*ka*-. In general, these markers cannot refer to situations that obtain on
the day of perspective time, but they are not always found with situations that obtained
apart from the day of reference. Based on their distribution and morphological similarity with
other dissociative-like (distal and irrealis) markers, I argue in this chapter that these forms
are markers of temporal dissociation, which typically means that a time frame referenced
is outside of the day of perspective time. Languages with temporal distance distinctions
differentiate hodiernal and extrahodiernal situations more than any other distinction (Dahl
1985, 2008, 2009); this fact may be related to sleep cycles and human cognition: the beginning
of the Totela "today" seems to coincide not with sunset or sunrise, as is sometimes claimed
for Bantu languages (see Nurse 2008), but rather with the beginning of sleep. Dissociative
markers, especially -*ka*-, are used in narrative to set up the narrative circumstances as apart
from the time of the narration context.

Chapter 6 describes -*ite*, a stativizing suffix that may be interpreted as depicting states
that are either contained in or after the time of the situation to which they refer. Similarly
to change-of-state verbs with -*a*-, location of the state with respect to situation time may
differ even for the same predicate. I argue that in addition to acting as a stativizer, depicting
a state associated with the verb's subject, and resulting from the situation referred to, -*ite*
presupposes relevance to the current discourse. That is, information about the subject's state
answers a question salient in current conversation. -*ite* and similar markers are extremely
common across Bantu and have notoriously complex temporal semantics; analysis of Totela
-*ite* in terms of relevance suggests grammaticalization paths and possibilities for the analysis
of like suffixes in other languages. Also, the clear information-structuring role of -*ite* evince
that in some cases, pragmatic, information-structuring functions may trump temporal roles
of tense and aspect markers.

Finally, chapter 8 summarizes the findings of this study and suggests avenues for further
investigation.

Chapter 2

Totela

2.1 Language background

2.1.1 Genetic classification

Totela is a Bantu language spoken in parts of western Zambia and the Caprivi Strip in northern Namibia. It is listed as K.41 in the Guthrie (1967-1971) classification system, widely acknowledged to be useful referentially, but not a "linguistic-genetic" system Maho (2009:4).

Totela belongs to a group of languages known as *Bantu Botatwe* (BB). BB includes Soli (K.36), Shanjo (K.36), Fwe (K.402), Totela (K.41 (Zambian) and K.411(Namibian)), Mbalangwe (K.42/401), Subiya (K.42), Lenje (M.61), Ila (M.63), Sala (M.631), Lundwe (M.632), Tonga (M.64), Toka (M.64), and Leya (M.64) (de Luna 2008). These languages have been given numerous and varied classifications (see Seidel 2005)), but are now widely acknowledged to belong to a cohesive group, despite the differing and therefore potentially misleading Guthrie classification codes. Fortune, for example, notes that "Totela and Subiya . . . belong with Shanjo to Zone M" (Fortune 1970:32). For an excellent introduction to Bantu Botatwe languages and their cultural and linguistic history, see de Luna (2008).

Example (17) shows a list of innovations from Proto-Bantu common to all known Bantu Botatwe languages, taken from Bostoen (2009). These changes are not exclusive to Bantu Botatwe, but describe characteristics that are also found in other language groups of the area, as well as further away. However, the "precise outcome" of Bantu spirantization separates the Bantu Botatwe languages from its nearest neighbors in the M.40 and M.50 languages (Bostoen 2009:125).[1] All of these innovations apply to Totela, as demonstrated in 2.2.

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[1]Specifically, after PB *i*, spirants have merged to a single place of articulation, alveolar or palatal. After *u*, reduction is partial in the western BB languages and Tonga, and nearly complete in other eastern BB languages (Bostoen 2008:117-118).

(17) Innovations common to *Bantu Botatwe* (Bostoen 2009:125)

    a.   *d > l/r

    b.   7-to-5 vowel merger

    c.   *k palatalization

    d.   Meinhof's law (NCVNC > NVNC)

    e.   *HH/*HL merger

    f.   Bantu spirantization

Map 2.1, provided by Kathryn de Luna, shows approximate current geographical locations of Bantu Botatwe languages with relation to one another.
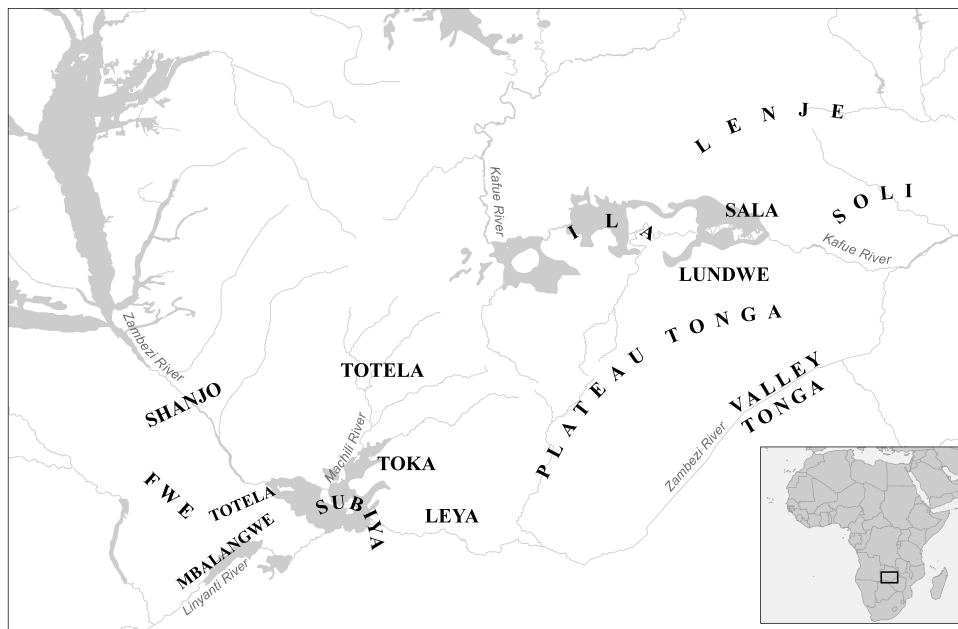
Map 2.1: Map of Bantu Botatwe languages in de Luna (2010)

Based on extensive vocabulary collection in Zambia and the Caprivi in Namibia, de Luna (2008, 2010) offers an internal classification of Bantu Botatwe. Based on cognation rates, Totela is classified along with other languages of the eastern Caprivi. These are given in figure 2.1, where the intersections of rows and columns show cognation rates between language pairs. For example, de Luna's Totela data (taken mostly from the Namibian Caprivi) have an 85% cognation rate with lexical data from Subiya. When shared innovations are considered in addition to lexicostatistics, de Luna's internal classification is different from what is shown in figure 2.1, but does not differ with respect to Totela's classification together with Subiya and Mbalangwe, forming the Machili subgroup of the Western Botatwe branch.[2]

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[2]The other subgroup of Western Botatwe is comprised of Shanjo and Fwe, which are posited to have descended from a Proto Zambezi Hook language.

```
Nyanja (N31)
41  Luganda (E/J15)
36  42  Luba Hemba (L34)
52  46  56  Bemba (M42)
52  45  56  58  Soli (M62)

47  41  46  58  70  Lenje (M51)
43  39  46  55  66  81  Tonga (M64)
42  39  42  56  61  78  84  Ila (M63)
41  39  42  55  68  79  78  81  Sala (M631)
37  35  40  51  55  70  76  82  75  Lundwe (M632)
41  39  48  49  63  74  77  73  72  75  Leya (M651)
42  40  48  55  60  73  75  70  72  74  91  Toka (M652)

40  41  51  56  59  66  65  71  65  64  67  68  Shanjo (K36)
40  40  48  53  57  63  62  67  62  65  64  64  83  Fwe (K402)
40  39  50  54  54  67  66  70  64  64  69  67  78  81  Subiya (K42)
41  39  49  52  58  63  63  66  61  62  68  66  79  81  85  Totela (K41)
40  39  48  52  53  59  59  62  58  58  62  62  76  81  84  84  Mbalangwe (K401)

36  38  52  47  45  49  48  45  44  47  45  45  53  57  56  54  55  Thimbukushu (K333)
41  39  52  56  49  50  50  51  48  49  49  49  60  58  58  57  54  67  Luyana/Mwenyi (K31/K352)
34  34  44  41  42  39  37  38  37  32  32  32  40  41  40  40  38  41  51  Lunda (L52)
36  35  44  43  41  41  39  38  31  37  37  37  44  43  43  42  40  47  48  59  Luvale (K14)
38  37  47  46  43  44  44  42  42  41  42  42  51  49  50  48  48  54  55  43  52  Kwangali (K33A)
29  23  26  35  34  33  30  31  28  29  33  33  35  35  35  38  39  29  34  23  26  28  Lozi (K21)
```

Figure 2.1: Cognation rates in de Luna (2010)

Totela data in de Luna (2008, 2010) come almost exclusively from work in the Caprivi in Namibia. My Zambian data show that Namibian Totela (NT) and Zambian Totela (ZT) differ significantly, suggesting a somewhat different classification and history. de Luna (2010:86) notes that "the grouping of Shanjo, Fwe, Totela, Subiya, and Mbalangwe as a genetic unit sharing an ancestral language, Proto-Western Botatwe, is not contested". However, the shared innovations defining this group are few. Furthermore, Zambian Totela shares several key post-Proto-BB innovations with eastern BB languages of Zambia. A list of several innovations used for the inner classification of the Bantu Botatwe languages is given in table 2.1.[3] Some innovations are shared by all of the languages in the sample, while others show divergences. Namibian and Zambian Totela differ in their stage of *p-lenition (NT always has *h* while ZT and other Zambian languages have a glide or zero, or, in some words, retain p) and *j-lenition, degree of augment vowel aperture, loss vs. maintenance of the vocalic augment, and whether H-tone anticipation plays a role. Aside from the complex issues related to the vocalic augment (see 2.4.1), in cases where the two varieties differ, Zambian Totela patterns with Zambian Group M languages Ila and Tonga, while Namibian Totela is more like its Caprivi neighbors, Fwe and Subiya.

Innovation from Proto-BB	Fwe	Subiya	NT	ZT	Tonga	Ila
*p-lenition: *p > h > ∅	h(/∅)	h	h	p/w/∅	p/w/∅	p/w/∅
*j-lenition: dʒ > ʒ > z > s > ∅	ʒ	∅/z	∅/z	∅/z/y	∅/z/y	∅/ʒ
augment vowel aperture	✓	n/a	no	✓	no	n/a
merger of places of articulation before *u	no	no	no	no	no	✓
spirant devoicing	no	no	no	no	no	no
generalization of li- as nominal prefix for cl. 5	no	no	no	no	no	no
uniformization of vocalic augment	no	n/a	no	no	✓	n/a
loss of vocalic augment	no	✓	partial	no	no	✓
H-tone anticipation	no	no	no	✓	✓	✓

Table 2.1: Post-Proto-BB innovations

Another important commonality between ZT and Tonga, absent from NT, is the non-completive/ disjunctive TA marker -la-, rarely found in Bantu (Nurse 2008). In general, tense and aspect morphology is quite different between the two Totela varieties. (See 2.4.2

[3]The list of innovations and the information about Fwe, Tonga, and Ila were taken from Bostoen (2009). Some Subiya data are from de Luna (2008) and my own field notes.

for more details.)

In the Caprivi, Totela and Subiya have identical sound systems, sharing all differences from Zambian Totela. Again, Zambian Totela patterns with Tonga, except that Tonga has both *hu* and *vu* reflexes for PB *bu and *gu.[4] Comparing the sound systems suggests a common ancestry, with the Caprivian languages later forming a distinctive subgroup. Table 2.2 shows the reconstructable PB environments where NT and ZT differ, and the corresponding sounds in Subiya and Tonga.[5]

*PB	Subiya (Caprivi)	Totela (Caprivi)	Totela (Zambia)	Tonga (Zambia)
*bu	vu	vu	hu	vu/hu
*gu	vu	vu	hu	vu/hu
*j	$\emptyset$/z	$\emptyset$/z	$\emptyset$/y/z	$\emptyset$/z/y
*p	h	h	$\emptyset$/p/w	$\emptyset$/p/w

Table 2.2: Sound correspondences within *Bantu Botatwe*

The distinction between NT and ZT is further evidenced by speakers' views of their own languages; Zambian Totela speakers refer to the Namibian Totela variety as "chiSubiya", while some call their own language "chiIla".[6] They tell stories about the Totela coming from Ila-land, and the origins of the name *Totela*.

Based on this evidence, a reclassification of ZT and NT within *Bantu Botatwe* should be considered, as NT patterns with Caprivi languages and ZT closer to its eastern group M neighbors. Whether this bears on the circa A.D. 500 split between Proto-Western Botatwe (including the Caprivi languages) and Proto-Eastern Botatwe (including Tonga and Ila) posited by de Luna (2008), or whether the differences are the result of the very heavy language contact in the Caprivi, or on lateral contact of Zambian Totela and its neighbors Ila and Tonga, is unclear. The distributions in table 2.2, especially, suggest areally distributed sound changes, rather than genetic relationships. It may be noted, as well, that Bantu languages are prone to rapid change, particularly when it comes to verbal morphology:

> The Romance changes pale in comparison with the changes within Bantu. Across Bantu, structures, categories, morphology, and morphemes have all changed since Proto-Bantu. They are constantly changing, so when discussing the difference between Bantu dialects, much less languages, linguists have to include features [of verbal morphology] (Nurse 2008:25)

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[4]As pointed out by Larry Hyman (p.c.), the *bu > *hu* change suggests an intermediate stage in which voiced *bu devoiced to *pu.

[5]Tonga and Subiya data are from de Luna (2008). Tonga does differ from ZT in several sounds not represented in this table.

[6]I suspect that Zambian Totela and Toka-Leya are even more closely related than are ZT and Tonga or ZT and Ila; reasonably intelligible conversation was possible with a Leya speaker in Livingstone – I (a non-native speaker) spoke Totela and he spoke Leya. Lack of data on Toka-Leya preclude its discussion in the tables above.

For more on the historical movements of speakers of Totela and other Bantu Botatwe languages, see Fortune (1959), Fortune (1970), Seidel (2005), de Luna (2008, 2010), and the many useful references therein. For more information on similarities differences between Zambian and Namibian Totela varieties, see 2.4 below.

2.1.2 Speaker population and endangerment status

2.1.2.1 Speaker population

The Ethnologue entry on Totela (Lewis 2009) lists Totela as having 14,000 speakers in Zambia, based on a 1971 survey.[7] Similarly, Fortune (1959) notes a 1956 estimation of "14,581, 220 in the Southern Province and 14,361 in Barotseland [the Lozi area in the Western Province]" (Fortune 1959:35).

If there were 14,000 speakers in 1971, the number has sharply decreased. The report from the 2000 census in Zambia makes no mention of Totela in its listing of primary languages of communication (CSO 2004:33-34), but it includes an "other" category in which Totela might be grouped with other languages. According to the report on second languages, approximately 1.2% of the 271,369 Western Province speakers who reported that they speak second languages listed Totela as their second language: 1.4% are in rural areas and 0.1% in urban areas (see table 2.3). This would there are mean about 3,200-3,300 Totela speakers in the Western Province.[8]

These numbers may be deceptively small, as some speakers, especially younger speakers who know but rarely use Totela, may have neglected to mention it as a second language. Also, people may have used names other than "Totela" when listing the language, leading it to be categorized as "other" rather than Totela. Finally, it appears that speakers were only given the opportunity to list a maximum of two languages. Since many speakers are likely to speak three or more languages, and a language other than Totela (e.g. Luvale) may be commonly used in daily life, they may have neglected to mention Totela.

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[7]100 speakers are listed for Namibia (Lewis 2009). I do not know the source of this number, and I have never undertaken a count, but it seems to be a clear case of undercounting, as Totela is spoken in several villages with populations of at least 100.

[8]The language listed by these speakers as their primary language is most likely Lozi, as this is the language most Totela speakers use with non-speakers and with younger generations. I have met speakers who speak exclusively (or nearly so) in Totela, but their number is too small to be counted. It is important to note that although Totela is listed as a "second" language, it is very likely the mother tongue of most of the people who listed it on the survey, with Lozi learned at a slightly later age; Lozi likely gained predominance in daily life for most speakers as Lozi's prestige and usefulness as a language of broader communication grew, which happened at least by the mid- to late-twentieth century.

Second Language of Communication	Total	Rural	Urban
Bemba	4.0	3.4	7.4
Tonga	1.9	1.8	2.7
Toka-Leya	0.3	0.4	0.2
Luvale	5.8	6.1	3.5
Lunda (North-Western)	0.8	0.8	0.5
Mbunda	10.6	11.1	7.6
Luchazi	2.0	2.1	0.9
Mbowe	0.1	0.2	0.0
Chokwe	0.9	1.0	0.4
Kaonde	0.5	0.5	0.4
Luyana	0.3	0.4	0.0
Kwangwa	2.8	3.2	0.6
Kwandi	0.3	0.3	0.0
Koma	1.0	1.0	0.8
Nyengo	1.2	1.2	0.5
Simaa	0.6	0.7	0.0
Mwenyi	0.4	0.5	0.2
Imilangu	0.2	0.2	0.0
Manshi	1.2	1.4	0.5
Lozi	39.9	43.7	16.2
Totela	1.2	1.4	0.1
Subiya	0.7	0.7	0.4
Nkoya	3.6	4.0	0.9
Chewa	0.1	0.1	0.2
Nyanja	6.7	5.7	13.1
English	12.1	7.3	41.5
Other Language	0.7	0.7	1.2
Total	100.0	100.0	100.0
Total Population	271,359	233,804	37,555

(CSO 2004:35, Table 4.5)

Table 2.3: Second language data from Zambia's 2000 Census

Another important measure of Totela speakers may be the number of Western Province residents who identified themselves as ethnic Totela, approximately 1% (0.4% urban), or just over 7,000 people (CSO 2004:37). By far, the highest concentration of ethnic Totela in the Western Province is in the Sesheke district, where my research took place, with 5% (about 3500) identifying as Totela. These numbers may misrepresent the situation by either over- or undercounting. Since it is not uncommon for Totela speakers to identify themselves as Lozi, the census data might underrepresent the number of speakers. On the other hand, it

may be an overrepresentation, since not every ethnic Totela – children in particular – may be a speaker of the language. The census data on ethnic groups in the Western Province are shown in table 2.4.

Tribe/ Nationality	Total	Rural	Urban
Bemba	0.6	0.3	2.9
Tonga	0.9	0.5	3.6
Toka-Leya	0.7	0.7	0.5
Luvale	5.8	5.8	5.3
Lunda (North-Western)	0.7	0.7	0.9
Mbunda	15.4	15.6	13.3
Luchazi	2.5	2.6	1.9
Mbowe	0.3	0.4	0.2
Chokwe	1.2	1.2	1.3
Kaonde	0.5	0.5	0.7
Luyana	1.5	1.7	0.1
Kwangwa	5.2	5.7	1.4
Kwandi	1.2	1.3	0.4
Koma	2.0	2.1	1.3
Nyengo	1.9	2.1	0.7
Simaa	1.0	1.1	0.1
Mwenyi	0.7	0.8	0.2
Imilangu	0.3	0.4	0.1
Mashi	4.6	5.0	1.5
Lozi	42.8	413	54.8
Totela	1.0	1.0	0.4
Subiya	0.9	0.9	1.0
Nkoya	4.9	5.3	1.6
Nyanja	0.2	0.1	0.9
Africans	2.1	2.3	0.4
Other Zambian	1.1	0.6	4.5
Total	100.0	100.0	100.0
Population	708,133	628,535	79,598

(CSO 2004:37, Table 4.7)

Table 2.4: Data on "Ethnic Groups by Residence" from Zambia's 2000 Census

Although they are individually problematic, these two measures (second language and ethnic identity) together roughly indicate that the Totela-speaking population today is between one-fifth and one-half of what it was found to be in 1971, pointing to severe attrition. Totela's endangerment is discussed in the next section.

2.1.2.2 Totela's endangerment pattern

> What is interesting about the African situation is that – in contrast with areas such as Australia, Americas and Siberia, where European languages have replaced, or are replacing, aboriginal languages – it is, for the most part, the more prestigious African languages. That is, African languages are wiping out African languages (Tsunoda 2004:26).

The above quote describes very well the situation of Totela in Zambia, where Lozi, the areal lingua franca and language of education, is rapidly replacing Totela. The endangered-language literature contains myriad scales for measuring degree of endangerment. Most are based on one or more of the following (interdependent) criteria, as given in Tsunoda (2004:9):

1. Number of (fluent, mother-tongue, first-language) speakers

2. Speaker age

3. Intergenerational language transmission

4. Range of functions of the language within society

While the number of fluent speakers for Totela is unknown, personal observation along with the census data discussed in 2.1.2.1 indicate that their number is in decline. Most speakers of Totela in Zambia are from older generations. In very rural areas where Totela is spoken, most people in the current childbearing generation (about age 20-40) have at least a passive knowledge of Totela, and many are able to speak it, as well. However, they rarely do so in their day-to-day lives, and almost never speak Totela with their children. While a few children I met had learned Totela from their grandparents (or older parents), most understood only a few words. This speaks to criterion 3, intergenerational transmission, which appears to have come to a halt in the Totela communities I have visited. As for the fourth criterion, Totela is currently spoken, if at all, only in home situations. It is rarely written (although the Lozi writing system is easily transferrable to Totela) and it is not used as a medium of instruction or for official purposes. Even many fluent speakers rarely use Totela at all, since younger generations do not speak or understand it. In a vicious cycle, older speakers use Totela less as it is less understood by younger speakers, who in turn have even less exposure to the language.

One informative endangerment scale is that of Krauss (2007), outlined in (18).[9]

(18)   Krauss' endangerment scale (Krauss 2007)

    1.   *"Safe languages"*, still learned as a mother tongue by children and predicted to continue to be learned as such for the foreseeable future.

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[9]As with many smaller languages, all but the highest degrees of endangerment severity on the famous Fishman "Graded Intergenerational Disruption Scale" (Fishman 1991) are irrelevant for Totela, as the lower degrees place emphasis on official and literary/educational uses that cannot practically be attained for small languages in highly multilingual countries – Zambia, with a population of about 12,000,000, has up to 72 languages (see also Hinton 2003:49-53)

2. *"Endangered languages"*:
   a. *"Stable languages"* still being learned by children as their mother tongue
   b. *"Languages in decline"*:
      i. *"Instable and eroding"*, where some children still speak the language
      ii. *"Definitely endangered"*, no longer learned as a mother tongue and the youngest speakers are in the child-bearing generation
      iii. *"Severely endangered"*, where the youngest speakers are in the grand-parent generation
      iv. *"Critically endangered"* with very few speakers at all, most of whom are in the generation of great-grandparents
3. *"Extinct"* with no living speakers (or potential speakers) and no further possible documentation

Krauss 2007:1-8; also summarized in Tsunoda 2004:12)

Scale Level	Endangered	In Decline	Grade	Spoken By
"Safe"			A⁺	all ages
"Stable"	✓		A	all ages
"Instable; Eroded"	✓	✓	A⁻	some children; all in some places
"Definitively Endangered"	✓	✓	B	parent generation up
"Severely "Endangered"	✓	✓	C	grandparent generation up
"Critically "Endangered"	✓	✓	D	great-grandparent generation (very few)
"Extinct"			E	no one

Table 2.5: Krauss' Endangerement Scale as a graded chart, adapted from Krauss (2007:1)

According to this scale, Zambian Totela would fall into category (2(b)ii) or (2(b)iii), with a "grade" of B or C. Languages at this level would be considered by many to be "moribund".[10] With speaker commitment and sufficient resources, however, languages at these levels can have good chances of success in revitalization.

Totela in Zambia has reached its relatively severe endangerment level largely due to the influence and prestige of Lozi, along with what seems to have been direct suppression of Totela. Living speakers of the grandparent and great-grandparent generations report being forbidden to speak Totela in school, and threatened with beating if they did. They were also discouraged by teachers from using Totela at home, although many at that time ignored

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[10]Krauss prefers to avoid this potentially discouraging term (Krauss 2007:3).

the advice. Gradually, use diminished from generation to generation until the majority of today's children barely understand it and almost never use it. Members of the childbearing generation often show great interest in Totela, but seem reluctant to speak it with their children, largely out of practical considerations such as intermarriage and general ease of communication. These speakers often learned Totela from their grandparents rather than their parents: the current grandparent generation (i.e. the parents of the childbearing generation) seems to have been in many cases the generation where transmission ceased. However, in the village where much of my research was conducted, and in others like it, the grandparent generation did speak Totela with their children when they were younger, especially in the context of traditional storytelling; today, however, the main language of parent-grandparent communication is Lozi.

Table 2.6 summarizes trends in generational communication patterns as I observed them in communities where Totela is most actively spoken. The table details what language each generation speaks with each other generation. When two languages are listed, the more commonly spoken language precedes the less common one. For example, the grandparent generation typically speaks Lozi, but occasionally also Totela, to their children, the parent generation.[11]

Speakers→ speak to ↓	Children	Parents	Grand-parents	Great-grandparents
Children	Lozi	Lozi	Lozi	Lozi/Totela
Parents	Lozi	Lozi	Lozi(/Totela)	Totela/Lozi
Grand-parents	Lozi	Lozi(/Totela)	Lozi/Totela	Totela/Lozi
Great-grandparents	Lozi	Lozi/Totela	Totela/Lozi	Totela/Lozi

Table 2.6: Generational patterns in Zambian Totela

The situation for Namibian Totela is somewhat different. In Namibia, Totela might be classified as a "stable" language, although it is still heavily influenced by language contact. As in Zambia, English is the official language of the country as well as the language of higher education. Lozi is the most widely used lingua franca and the language of instruction in primary education in areas where Totela is spoken. Despite its relative stability, Totela is very much a minority language in Namibia. It has no official orthography, and it is not

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[11]The major impact of Totela language attrition on my data is the difficulty of obtaining authentic intergenerational conversation data, most especially the language used by adults when addressing children. Also, Lozi influence on vocabulary, and possibly on TAM constructions and interpretations, must also be expected. Translation into Lozi and comparison with other varieties related to Totela is employed to mitigate any historical misconceptions that might arise from Lozi influence; synchronically, Totela must be understood as a variety that has been influenced by language contact.

officially recognized on a national level or known to Namibians living outside of the areas where it is spoken. Even within the Caprivi, Totela is marginalized, being probably the latest linguistic arrival to the region and having small numbers of speakers. Totela speakers have constant and heavy interaction with speakers of closely related and mutually intelligible languages (see 2.1.2.3 below) and there is a great deal of language mixing. There is much intermarriage between Totela speakers and speakers of other languages, so there are few villages inhabited solely by Totela speakers.

Still, Totela (and related languages) are widely used in everyday life, while Lozi is used in more formal settings, such as school and in church services. Therefore, despite the heavy contact, mixing, and the presence of Lozi, Totela is still actively spoken in several communities in Namibia, and people identify themselves as Totela, or as members of Totela subgroups, making Totela apparently less endangered than in Zambia, although it is rapidly changing.

2.1.2.3 Contact languages and current contact situation

Totela is spoken in an area vibrant with languages and language varieties, and language contact with has surely been a major influence. This section aims to give a general idea of the current situation as I observed it and as speakers explained it to me.

Zambia: Today, the most significant contact language is Lozi (Guthrie number K.21, but more closely related to the S Group of South Africa). Lozi is the lingua franca for virtually all Totela speakers communicating with speakers of other languages, and increasingly, amongst themselves; for all but some Totela speakers in a few rural areas, nearly all day-to-day life is conducted through the medium of Lozi (see 2.1.2 for further discussion). Lozi is also the language of education.

The history of Lozi in Zambia and Namibia is an interesting one. It developed from a Southern Sotho (S.33) variety spoken by a group of invaders called the Kololo. The term *Lozi* is a corruption of the Subiya term for the invaded Luyi tribe, *Luizi*. (Lozi is also called *chiLwizi* in Totela.) The Kalolo invaders were eventually conquered but their language remained and is a growing influence in the area. Synchronically, it is a mixture of mostly Sotho morphology, with a large and apparently increasing amount of vocabulary from the language of the invaded Luyana (K31) speakers, a language which itself has nearly disappeared. *Kalolo* itself is a derisive term the Luyi gave to their invaders, in reference to their shaved heads (Lozi -*kolola* 'to shave off someone's hair'); their original name is apparently unknown (Fortune 1959:41-42).

Hence, Totela is in heavy contact with a Bantu language that is radically different in its morphology. Other languages spoken in the vicinity of Totela that may interact with it include Luvale (K.14), Nkoya languages (L.60, including Mbowela L.62), Luyana languages (K.30, including Kwangwa K.37) and possibly others. The contact with these languages is evidenced through shared vocabulary and the appearance of these languages in the songs of traditional narratives: quite often, the text of a story is in Totela, but the recurring chorus is in another language, and speakers may or may not know the meaning of the words.

English is also spoken in post-primary education in Zambia, but its influence on Totela seems relatively small. Some borrowings were observed and the number system has almost

completely supplanted the Totela system, especially for numbers greater than five.

Map 2.2 of Zambia (from Lewis 2009) shows approximate language distributions in Zambia.
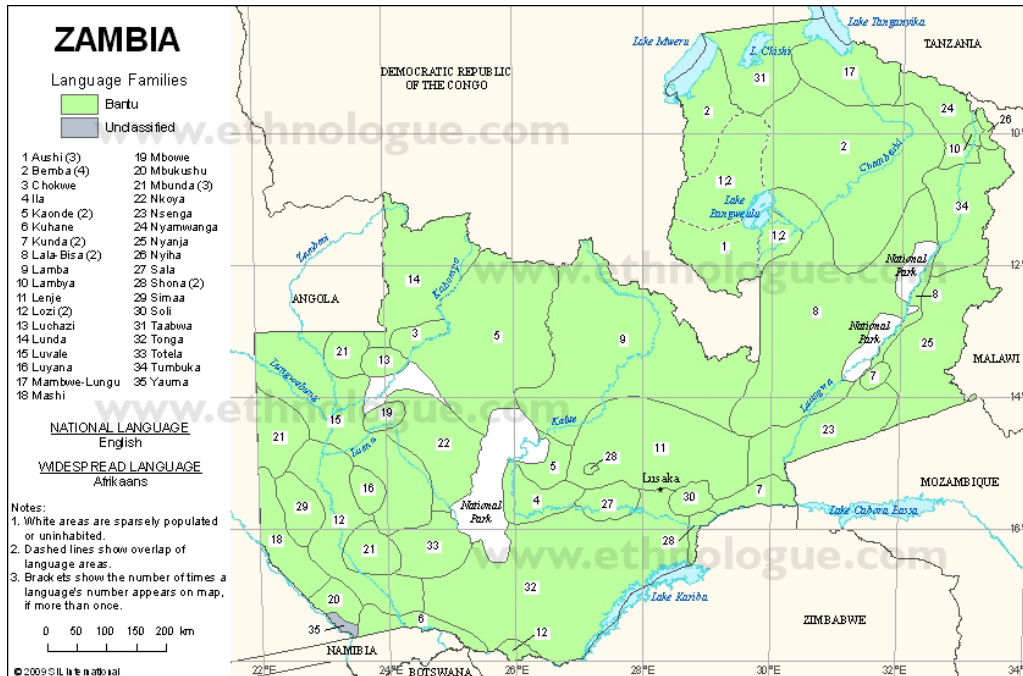
Map 2.2: Language map of Zambia (Lewis 2009)

Namibia: Totela speakers are reported to be among the most recent arrivals in the Caprivi. One source notes them as having fled Bulozi in Zambia and settling in the Caprivi Region (known as *Itenge*) in 1842. The Subiya people, in contrast, are reported to have arrived as early as the 1400s (Review 1999:7).

As in Zambia, Lozi plays a large role in the daily lives of Totela speakers, as it is the language of education and official communications. However, the Caprivi in Namibia is also home to a dialect continuum where Totela and its neighbors and relations are still spoken regularly, and Seidel notes that in the Caprivi, most children in rural areas have their first serious encounter with Lozi only when they enter school (Seidel 2005:208). A partial sketch of the eastern Caprivi dialect continuum, based on my observations and speaker comments in 2006 and 2007, is given in (19).[12] Many speakers can comprehend and even speak a number of these varieties.

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[12]Note that there are (at least) two Totela varieties recognized by Caprivi speakers: China Chilao, and China Luhani. These varieties are extremely close to one another and are not given separate Guthrie classifications.

(19)   Observed NT dialect continuum: Fwe (K402) — China Chilao (Totela) (K41) — China Luhani (Totela) (K41) — Linyanti / Mbalangwe (K401) — Subiya (K42)

English plays a larger role in Namibian Totela than in Zambian Totela, because the Namibian Totela population is centered close to the urban area of Katima Mulilo, and contact is regular. Map 2.3, from Seidel (2005:209), shows an approximate current distribution of languages in Caprivi around where Totela is spoken.
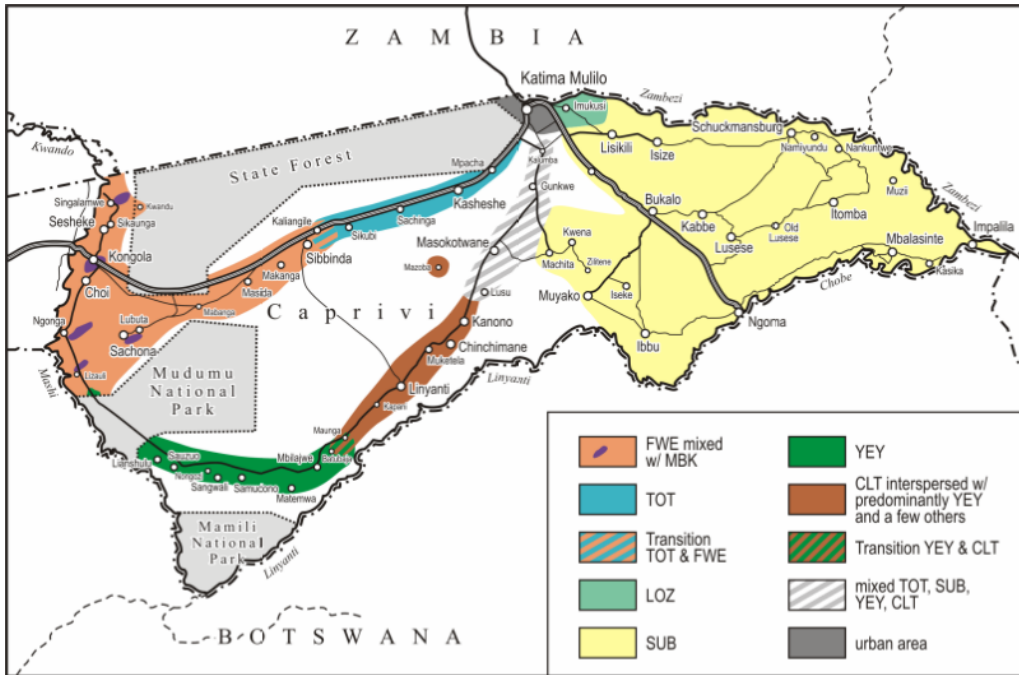
Map 2.3: Caprivi languages (Seidel 2005:209)

Thus, the while the larger population of Totela speakers in Zambia is rapidly shrinking, the smaller community of Namibian Totela speakers appear to be maintaining a relatively stable multilingualism (see also Seidel 2005:208).

2.1.3   Previous research

Very little published work is available that deals specifically with the Totela language. Mentions of Totela as a language and ethnic group may be found in several works, including Torrend (1921), Bryan (1959), Fortune (1959, 1963) and others. Jacottet (1896-1901) includes a few Totela songs. More recently, Baumbach (1997) published a brief sketch of Namibian Totela. Some works dealing with Bantu Botatwe languages (e.g. Seidel 2005; de Luna 2008, 2010) also include Totela wordlist data in their analyses.

2.2 Basic phonology

This section gives a very broad and basic overview of the phonological system of Totela as it is spoken along the Kweemba river in Zambia's Western Province, with some notes about other varieties, as well as its relationship to the sound system proposed for Proto-*Bantu Botatwe* (PBB) by Bostoen (2009) and its possible development from Proto-Bantu, discussed in 2.2.6.

Transcriptions in this section generally correspond to the IPA symbols; however y is used (instead of j) for the palatal glide, following the general Bantu convention. A practical orthography that will be used in the rest of the study is given in 2.2.7.

2.2.1 Consonant inventory

The Totela variety spoken in the Kweemba area has the consonant inventory depicted in tables 2.7 and 2.8. The consonants enclosed in parentheses have limited distributions or are found predominantly in loanwords. Some of the consonant distinctions may be traced to development from Proto-Bantu (see 2.2.6), but with the 7-to-5 vowel merger from PB, former allophones are synchronically contrastive. Possible syllable shapes in Totela are (N)(C)(G)V(:). The consonant inventory for Zambian Totela is given in table 2.7. Table 2.8 shows prenasalized consonants.

In the following discussion of Totela phonemes, occasional mention is given to Proto-Bantu correspondences. These are described systematically in section 2.2.6.

	bilabial	labio-dental	dental	alveolar	post-alveolar	palatal	velar	glott.
plosive	p b			t (d)			k (g)	
nasal	m			n		ɲ	ŋ	
fricative	β	f		s z	(ʃ)			h
affricate						tʃ dʒ		
lat. app.				l				
approx.	w					y		

Table 2.7: Consonant inventory (ZT)

	bilabial	labio-dental	dent.	alveolar	post-alv.	palatal	velar	glott.
plosive	mp mb			nt nd			ŋk ŋg	
fricative				ns nz	(nʃ)			nh
affricate						(ntʃ) (ndʒ)		
approx.	nw					ny		

Table 2.8: Pre-nasalized consonants

2.2.1.1 Stop series

p The phoneme /p/ does not occur with great frequency (in most vocabulary where PB has *p, it has spirantized or deleted in Totela) but is found in all consonant environments. Examples: *òkùyùpà* 'to skin (vegetables, shell groundnuts, etc)'; *èmìpèpì* 'feathers'; *òkúpà* 'to give'.

b The stop /b/ is also not very common but does occur contrastively in some words. Written as **bb** in practical orthography. Examples: *òlúbùtò* 'crop seeds'; *òkwíbàlà* 'give birth', cf. *òkwíβàlà* 'carry (child) on back'. (However, these two items are very frequently interchanged and must be understood within context.)

t /t/ occurs with low to moderate frequency and is generally traceable to PB *t. Examples: *òlùtàŋgà* 'seed (pumpkin, watermelon, etc)'; *òkútèmà* 'cut with axe'; *èchítùmbà* 'skin'.

d /d/ is found mostly in borrowings from English, as well as a few other vocabulary items. Examples: *ìdíʃì* 'dish' (from English 'dish'); *ìdìlámù* 'drum, barrel' (from English 'drum'); *àmàdòmbè* 'mud' (origin unclear).

k /k/ occurs commonly. Examples: *òkúyààkà* 'to build'; *òmúsèkè* 'hot ashes'; *òlúzùkì* 'bee'.

g The phone /g/ does not occur commonly; most (or all) PB occurrences have different reflexes in Totela, and most of the synchronic occurrences of /g/ are cognate with Lozi words. Examples: *àkàzígò* 'paradise flycatcher' (Lozi: *akazego*); *òkùgùyà* 'grind maize' (Lozi: *-guya*); *òkùgànkìlà* 'freeze, congeal' (apparently not cognate with Lozi).

2.2.1.2 Nasal series

Nasals occur alone and in prenasalized stops (see section 2.2.2).

m /m/ occurs frequently and is traceable to PB. Examples: *òkùmànà* 'to finish'; *ìhùmò* 'stomach'; *èʧìsámù* 'tree'.

n /n/ also occurs frequently. Examples: *ìngìnà* 'louse'; *ìsènè* 'worm'; *ìkònì-kònì* 'hornbill'.

ɲ Occurs with some frequency and corresponds to PB *ɲ and/or is the result of ni-V gliding. Written as **ny**. Examples: *ìɲàmà* 'meat'; *íɲàtì* 'buffalo'; *òkùɲèèzà* 'to annoy'; *òmwîɲò* 'salt'.

ŋ Does not occur very frequently, and may usually be attributed to Meinhof's Law (see 2.2.6.5), or possible borrowing from Lozi (directionality of borrowings is unclear). Written as **ñ** in practical orthography. Examples: *ìŋòmbè* 'cattle'; *òkùŋàtàwùlà* 'cut into pieces'; *íŋòngì* 'traditional chief's bell' (Lozi: *ngongi*).

2.2.1.3 Fricative series

β The voiced bilabial fricative corresponds to PB *b and is far more common than plosive [b]. It is written as **b** in the practical orthography. It is realized as [b] after [m] ([mb]). Examples: *ìβùβì* 'spider'; *ìβèntùβéntù* 'big fire'; *ntìmbìlà* 'dung beetle'.

f The sequence [fu] is derivable from PB *pu, *tu, and *ku (see 2.2.6); other occurrences seem to be borrowings. Examples: *òmúfùlì* 'blacksmith'; *ìfásì* 'world' (Lozi: *lifasi*); *òkúfòsà* 'to do wrong, make a mistake' (Lozi -*fosa*). No examples with [fe] or [fi] were found.

s /s/ is traceable to PB *c. Examples: *òkùsèsà* 'to marry (said of a man)'; *sókwè* 'monkey'; *òβùsúkù* 'loneliness'.

z /z/ has several sources in PB, including *b, *d, *j, and *g, in various contexts (see 2.2.6). Examples: *àbázàzì* 'parents'; *òkúbòzà* 'to bark'.

ʃ This phone is rare in examples that are not cognate with Lozi vocabulary. Written as **sh** in practical orthography. Examples: *òkùʃùbà* 'to urinate'; *òkùʃòntà* 'to kiss'; *òkùʃùtà* 'to fish with line and hook' (Lozi -*shuta*).

h When followed by [u], /h/ is a labialized glottal fricative [hʷ], often pronounced with some degree of nasalization. These are derivable from PB *bu and *gu sequences. Other occurrences of /h/ are glottal fricatives and seemingly occur only in borrowings. No examples with [hi] or [he] were found. In Namibian and some other Zambian Totela varieties, [hʷu] is [βu] or [vu]. Examples: *íhʷù* 'soil, ground, earth'; *òkúhàlìkà* 'to roast (on fire, in pan)' (Lozi -*halika*); *'okúhòhà* 'to pull' (Lozi -*hoha*).

2.2.1.4 Affricates

ʧ This is very common, as it is part of the class 7 series of prefixes. Its origins may be traced to the palatalization of PB *k. Written as **ch** in the practical orthography. Examples: *òβúùʧì* 'honey'; *èʧìyùnì* 'bird'.

ʤ Only occurs in NC sequences (see below) and following [i]. Written as **j** in the orthography. Examples: *òkwíʤàyà* 'to kill'; *ìʤìlò* 'yesterday, tomorrow'.

2.2.1.5 Approximants

l The lateral approximant [l] occurs commonly and corresponds to PB *d. Examples: *òkúlèètà* 'to bring'; *òmùzìlílì* 'fresh milk'.

w Bilabial approximant [w] is also common and is caused by the gliding of a (C)VV sequence. A glide is typically pronounced between two vowels (=two syllables), and the orthography reflects this pronunciation. [w] is a result of uV sequences or [a] followed by [o] or [u] across a syllable boundary. [w] is found after every consonant in my data, e.g. *òβwáàtò* 'boat, canoe' (from *òβú-àtò*); including one example with ʧ (*òkùʧwìtà* 'move while seated; scoot over'). It also occurs with most or all NC sequences. In some varieties of Zambian Totela, the verb *òkúnywà* 'to drink' has an [nyw] sequence, as does the 2pl pronoun *ínywè*.[13] Other examples: *òkùwà* 'to fall'; *òkùwàmbà* 'to speak'.

y Palatal approximant [y] occurs in (N)(C)iV sequences and also (probably due to the same process historically) in some cases where PB *j has been lost. [y] only occurs after non-back consonants in my data (including one Lozi cognate with [my], *àmálìmùmyò* 'pretending not to want something one actually does want'). [ny] also occurs when created from an niV sequence (in contrast with ɲ) Other examples: *òkútyààbà* 'to collect wood' (*òkúʧàbà* in other varieties); *òkùyà* 'to go'; *òkúyìmbà* 'to sing'; *òkùɲàmùkà* 'to set off on a journey'. Prenasalized consonants also occur before [y], e.g. *òmùnkùmbyâ* 'type of root'; *ímpyè* 'ostrich'; *òkùsànzyà* 'to wash (tr.)' (from -*samba* 'bathe' + causative extension, with consonant mutation).

2.2.2 Prenasalized consonants

All NC sequences are licit in Totela. Nasals assimilate for place but do not trigger voicing or devoicing. Fricative [β] occurs as [b] post-nasally. [m] and [n] may be tone bearing units at the beginning of words, especially with personified class 9/10 animals which have been converted to class 1a nouns (e.g. *ǹzòhù* 'elephant'). Some degree of vowel lengthening occurs before prenasalized consonants, in some cases resulting in a falling tone.

mp Examples: *ìmpàsù* 'grasshopper'; *ímpyè* 'ostrich'.

mb [mb] alternates with [β]. Examples: *pòmbò* 'baboon' *ìmbîzì* 'zebra, horse'.

nt Examples: *ntìmbìlà* 'dung beetle'; *nàlùntàmbwè* 'chameleon'.

nd Examples: *ǹdáhù* 'lion'; *òtùbíndò* 'beads'.

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[13]These words are found in Kweemba Maalo and Samisisi. In the villages along the Kweemba where I worked in 2009, 'to drink' is *òkúnwà* and 2pl is *ínwè*.

ŋk   Written as **nk** in the orthography. Examples: *ìbbwàŋkò* 'hole (in wall)'; *òkùchùŋkùtà* 'to limp'; *íŋkàŋgà* 'guinea fowl'.

ŋg   Written as **ng** in the orthography. Examples: *àmànzùŋgwè* 'dizziness'; *ìwôŋgólò* 'millipede'; *ìŋgè* 'scorpion'.

ns   Examples: *ìnsàmbà* 'lark (or similar bird)'; *nsáà* 'duiker'; *àkànsàngàmùlèlè* 'swallow (or similar bird)'

nz   Examples: *ǹzóhù* 'elephant'[14]; *òkùbànzà* 'to get food from storage'.

nʃ   **nsh** in practical orthography. I have only one example in my data: *nʃùbìlà* 'ground beetle'. This is likely due to the general rarity of [ʃ] rather than any particular restriction on NC sequences.

nhʷ   These are pronounced with heavy nasalization. Examples: *èlìnhʷù* '(potter) wasp'; *ínhʷwì* 'white hair'. Also occurs highly labialized in *sìkà˥mpánhʷfwà* 'bat'.

ntʃ   In practical orthography: **nch**. This sequence is fairly rare, but does occur. *ìntʃélètʃélè* 'kind of grass'; *íntʃìlì* 'mortar'; *òkùtʃàntʃàlìkà* 'to stumble, trip'.

ndʒ   Also relatively rare; apparently prenasalized reflexes of PB *j*. **nj** in practical orthography. Examples: *àkàndʒwîi* 'bird (sp.)'; *ìndʒábwè* 'starling'; *òkúndʒìkùkà* 'to hiccup'.

2.2.3   Comparison with Proto-BB

	bilabial	labio-dental	dental	alveolar	post-alveolar	palatal	velar	glott.
plosive	p b			t (d)			k (g)	
nasal	m			n		ɲ	ŋ	
fricative	β	f		s z	(ʃ)			h(ʷ)
affricate						tʃ dʒ		
lat. app.				l				
approx.	w					y		

Table 2.9: Totela consonant inventory (ZT)

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[14][n] bears tone from lost class 9/10 (pre-)prefix [ì]

	bilabial	labio-dental	dent.	alveolar	post-alv.	palatal	velar	glott.
plosive	mp mb			nt nd			ŋk ŋg	
fricative				ns nz	(nʃ)			nhʷ
affricate						(ntʃ) (ndʒ)		
approx.	nw					ny		

Table 2.10: Pre-nasalized consonants in Totela

	bilabial	labio-dental	dental	alveolar	post-alveolar	palatal	velar	glott.
plosive	*p			*t			*k *g	
nasal	*m			*n		*ɲ	*ŋ	
fricative	*β	*f *v		*s *z	*ʃ			
affricate						*dʒ		
lat. app.				*l(/r)				
approx.	*w					*y		

Table 2.11: Proto-*Bantu Botatwe* consonant inventory (proposed in Bostoen 2009:124)

	bilabial	labio-dental	dent.	alveolar	post-alv.	palatal	velar	glott.
plosive	*mp *mb			*nt *nd			*ŋk *ŋg	
fricative		*mf *mv		*ns *nz		*nʃ		
affricate						*ndʒ		

Table 2.12: Pre-nasalized consonants in Proto-*Bantu Botatwe* (proposed in Bostoen 2009:124)

The consonant inventory of Kweemba Totela is quite similar to that proposed by Bostoen (2009) for Proto-*Bantu Botatwe* (PBB), with a few additions, likely due to influence from Lozi and other languages, as well as the loss of some consonants (e.g. [v]), possibly attributable to sound change (e.g. in the case of [v], [v] > [h]). The Totela inventory is repeated here in tables 2.9 and 2.10, along with Bostoen's proposal in tables 2.11 and 2.12, for easy comparison.

2.2.4 Vowels

Totela has a 5-vowel system with contrastive length (20), although the role of length may be diminishing. Contrastive vowel length is apparently not found in many of the Bantu

Botatwe (BB) languages (Bostoen 2009:114), where penultimate lengthening may instead be found. Tonga (M.64) does have long vowels (see e.g. Carter 2002), but these are the result of the loss of intervocalic consonants, and Proto-Bantu long vowels have not been preserved (Maddieson 2003:38). Subiya also has contrastive vowel length (Mathangwane & Mtenje 2007:6). I found vowel length to be somewhat hard to perceive, especially in nouns, and speakers did not correct my productions for it as they corrected for tone and other segmental errors. Still, length is evidenced by special tone patterns (appendix C).[15] Vowels also lengthen before prenasalized consonants.

(20) Totela vowel system

```
i      u            ii      uu
e      o            ee      oo
   a                   aa
```

Figure 2.2 gives sample formants for short vowels in ZT, averaged over several samples of various vocabulary items ending in the low-toned sequence -*l*V. The F1 formant values are plotted against F2 values on a logarithmic scale, showing a female speaker's vowel space.
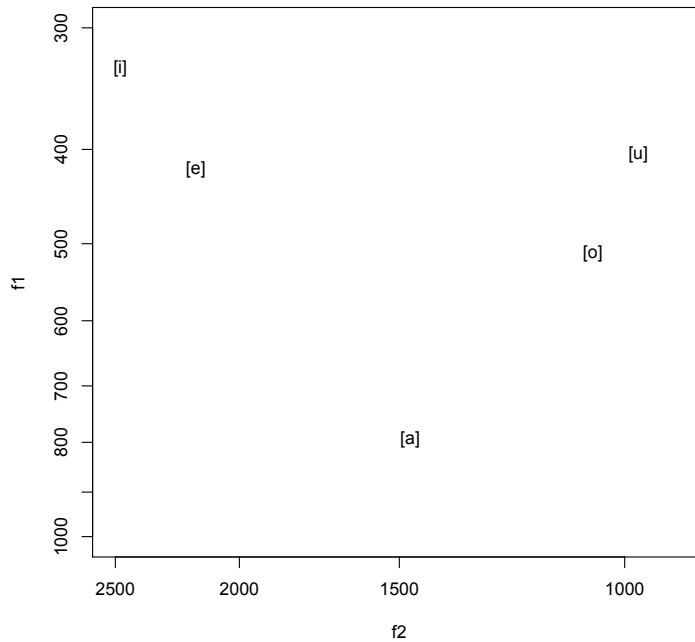
Figure 2.2: Sample vowel formants from female speaker VB (logarithmic graph)

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[15]Vowel length was particularly difficult to perceive in Namibian Totela, and examples may not reflect vowel lengths with complete accuracy.

2.2.4.1 Vowel length

As noted above, Totela has both long and short vowels, although the contrastive role played in the language seems to be small and possibly lessening. Vowel length is evident in -CV:C-verb roots, have a HL-L pattern in the 2sg. imperative *súùkà* 'come down!", while -CVC-roots have a H-L pattern (*súkà* 'rub together! (e.g. cloth)'). For more on tone and vowel length see appendix C. Vowels also lengthen before prenasalized stops. Vowel length is less perceptually salient than are other acoustic cues such as tone. (21) gives some examples of verbs with long vowels. Most correspond to roots with long vowels in PB or are the result of lengthening following a glide.

(21)   a. *òkúlààlà* 'to sleep'

       b. *òkùfwèèßà* 'to smoke' (glide + lengthening)

       c. *òkúlèètà* 'to bring'

       d. *òkùzììkà* 'to bury'

       e. *òkúyòòtà* 'to warm oneself (by fire, in sun)'

       f. *òkúlòòtà* 'to dream'

       g. *òkúzùùlà* 'to undress'

Several minimal pairs of verbs with different meanings, contrasting only in vowel length, have been found, including those in (22)-(23).

(22)   a. *òkùßòòlà* 'to return'

       b. *òkùßòlà* 'to rot'

(23)   a. *òkúkùùlà* 'to climb'

       b. *òkúkùlà* 'to grow'

2.2.4.2 Vowel-vowel interactions

Within morphemes, a (non-homorganic) VV sequence is pronounced with a glide. Across morphemes or words, vowels tend to glide or coalesce. iV sequences result in yV (*-si* > *-sya* 'dig'); uV becomes wV (*-su* > *-swa* 'spit'). The most significant across-morpheme VV coalescence pattern can be seen in aV sequences, as illustrated in (24), with lengthening. See appendix C for a description of the tonal processes involved.

(24)   a. *òkúßònà + àßàntù > òkúßònáàßàntù* 'to see people'

       b. *òkúßònà + èmìnzì > òkúßònéèmìnzì* 'to see villages'

       c. *òkúßònà + ìŋòmbè > òkúßònéèŋòmbè* 'to see cattle'

       d. *òkúßònà + òm'unzì > òkúßònóòmùnzì* 'to see a village'

       e. *àmà-ìnzì > àméènzì* 'water'

/au/ sequences are realized as [a(w)u] or [o] (***ná-ù****-lá-bònà* 'you will see' > ***nô:****lábònà*). /eV/ sequences across words behave similarly to /aV/ sequences (as in (24)).

For the purpose of more transparent morpheme representation, across-word vowel coalescence is not represented in the transcriptions in this study. That is, instead of *òkúβònéèmìnzì*, the phrase will be transcribed as *òkúβòná èmìnzì*. This is how the phrase might be pronounced in careful speech.

2.2.5 Tone

Totela has a system of High Tone Anticipation (HTA), in which input H tones surface one syllable to the left. HTA is cross-linguistically quite rare (Hyman 2007b); even within Bantu only a few clear examples are attested. Totela's system is particularly unusual in its regular and across-the-board application of HTA, although constraints exist. HTA occurs both within and across word boundaries, with slightly different conditionings. Within a word, a H-H sequence becomes H-L (Meeussen's Rule).[16] The following tables show HTA with Proto-Bantu correspondences for nouns (table 2.13) and verbs (table 2.14). Totela verbs are given in their infinitive form so that HTA onto the infinitive prefix can be observed. Monosyllabic, bisyllabic, and long bisyllabic verb stems are shown in H and L pairings. Glosses reflect Totela infinitive form. HTA can also be observed in the PB-Totela correspondences given in the previous section.

*PB tone (stem)	Totela tone (stem underlined)	Proto-Bantu	Totela	Gloss
H-H	L-H-L̲-L̲	*-kʉ́dʉ̀	òmú-kùlù	'adult'
H-L	H-L̲-L̲	*-bókò	í-bòkò	'arm'
L-H	H̲-L̲	*-gòdí	òlù-wózì	'string'
L-L	L-L-L̲-L̲	*-dèdù	òmùlèzù	'beard'

Table 2.13: HTA in nouns

PB(L)	Totela	Gloss	PB(H)	Totela	Gloss
*-gʊ̀	òkù-wà	'to fall'	*-pá	òkú-pà	'to give'
*-dòg	òkù-lòwà	'to bewitch'	*-dúk	òkú-lùkà	'to vomit'
*-dìIk	òkù-zììkà	'to bury'	*-dóot	òkú-lòòtà	'to dream'

Table 2.14: HTA in verbs (infinitive form)

For further details on Totela's anticipatory tone system, see appendix C and Crane (2010).

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[16]Totela's tone system shows some signs that it is privative (H-∅) rather than binary (H-L) (see appendix C for details) but both H and L tones are marked throughout. Tones are given here in terms of H and L (rather than H and ∅) for presentational clarity; this should not be assumed to be a theoretical statement about the "underlying" tone system.

2.2.6 Proto-Bantu Correspondences

The following consonants and vowels are commonly reconstructed for Proto-Bantu (PB) (see e.g. Hyman (2003a) and Schadeberg (2003) among many others):

(25)   a.   Consonants:

voiceless:	p	t	c	k
voiced:	b	l/d	y/j	g
nasal:	m	n	ɲ	

   b.   Vowels:

i   u
ɪ   ʊ
e   o
   a

As is common across a wide area of Bantu languages including Totela (Schadeberg 1994-1995), the PB 7-vowels system has been reduced to a 5-vowel system (see 17 and 2.2.4) in Totela. Prior to the 7-to-5 merger, labial (*p, *b), alveolar (*t, *d), and velar (*k, *g) oral consonants in Totela underwent spirantization before PB high vowels *i and *u, an apparently (near) universal development within Bantu languages with reduced vowel systems (Schadeberg 1994-1995; Bostoen 2008). Additionally, PB *k has undergone palatalization with front vowels, and several other consonants have lenited or deleted. Changes are given in table 2.15 and exemplified below.

In this section, only changes that seem to occur with reliable regularity are discussed. For a more complete analysis of Bantu Botatwe phonology, including Totela but not the variety discussed here, see (e.g.) de Luna (2008) and Bostoen (2009).

PB	before *i	before *u	elsewhere
*p	s	f	∅, p
*b	z	(n)h$^{(w)}$	β
*t	s	s,f	t
*d	z	z	l
*c	s	s	s
*j			∅, y, z
*k	s	f	tʃ, k
*g	z	(n)h$^{(w)}$	∅/glide

Table 2.15: PB-Totela Sound Correspondences

Proto-Bantu lexical reconstructions are taken from the FileMaker dictionary of Coupez *et al.* (1998). Glosses of the correspondence exemplifications in this section give the posited

PB senses that most accurately match current Totela use. Nouns are given with (singular) noun class prefixes in Totela. Examples with PB verb roots are given in the infinitive form in Totela to show leftward tone shift (see section 2.2.5 for details on high-tone anticipation).

2.2.6.1 Voiceless plosives *p *t *c *k

Proto-Bantu *p* has lenited to [∅] in most contexts in Totela. Before high vowels *i* and *u*, it has spirantized to [s] and [f], respectively. It is retained as [p] post-nasally and in some other cases. The context for retention of *p* is unclear because few examples are attested, although it may be noted that many are monosyllabic.[17] In Namibia, PB *p* surfaces as [h]. *p* is realized as [h] in other Namibian Bantu Botatwe languages, as well (Bostoen 2009:115).

(26) *p

    a. *p > ∅

*-pínì	>	òmwîìnì	'handle'
*-pépò	>	ímpèyò	'cold'
*-pòkù	>	òmù(w)òfù	'blind person'
*-kúpà	>	èchífùwà	'bone'

    b. *p > s (before *i)

| *-pìk | > | òkùsìkà | '(to) arrive' |
| *-pìip | > | òkùsìyà | '(to) be black' |

    c. *p > f (before *u)

| *-cèpú | > | nséfù | 'eland' |

    d. *p > p (after nasal, and some other cases)

       i. after nasal

| *-pépò | > | ímpèyò | 'cold' |
| *-pígò | > | ìmpíyù | 'kidney' |

       ii. some other cases

| *-pí | > | òkúpyà | '(to) burn' |
| *-pá | > | òkúpà | '(to) give' |

PB *t* is retained in Totela, except in spirantization-inducing contexts. The conditioning of *t* > [s] vs. *t* > [f] before *u* is unclear. Both changes are attested within Bantu (Schadeberg 1994-1995:75).

(27) *t

    a. *t > t

*-nyátì	>	ínyàtì	'buffalo'
*-tʋ́k	>	òkútùkà	'(to) insult, abuse'
*-kútà	>	àmáfùtà	'fat, oil'

    b. *t > s (before *i)

| *-tíg | > | òkúsìyà | '(to) leave' |

---

[17]These forms, given in (26d-ii), are not cases of Lozi influence; Lozi has *-fa* 'give' and *-ca* 'burn'.

   c. *t > s (before *u)

*-túmʊ̀	>	òmúsùmù	'spear'
*-tú	>	òkúswà	'(to) spit'

   d. *t > f (before *u)

*-túdì	>	òmúfùlì	'smith'

Reconstructed *c* systematically surfaces as [s] in Totela. One example ('leech'), has been found in which *c* corresponds to Totela [ʃ], although the Proto-Bantu reconstruction itself is questionable for this example. It may be noted that other Bantu Botatwe languages have the *c* > [ʃ] change. Otherwise, [ʃ] is somewhat rare in Totela.

(28) *c

   a. *c > s

*-címbá	>	ínsìmbà	'feline spp.'
*-cùd	>	òkùsùlà	'(to) pass gas'
*-cèk	>	òkùsèkà	'(to) laugh'
*-jícò	>	èlîìnsò	'eye'
*-càd	>	òkùsàlà	'(to) choose'
*-cʊ́ndʊ̀	>	múʃùndù	'leech'

PB *k* is retained as [k] in many contexts in Totela, spirantizing regularly before high vowels ((29b) and (29c)). *k* also underwent palatalization before front vowels (29d).

(29) *k

   a. *k > k

*-kʊ́mì	>	íkùmì	'ten'
*-kódì	>	sìkákòzì	'prey bird spp., hawk spp'
*-kádì	>	òβúkàlì	'sharp(ness)'

   b. *k > s (before *i)

*-kíŋgó	>	ínsìŋgò	'neck'
*-kímà	>	ínsìmà	'mush'

   c. *k > f (before *u)

*-kúmì	>	òmùfúmì	'rich person'
*-kútà	>	àmáfùtà	'fat, oil'

   d. *k > tʃ (before front vowels *e and *ɪ)

*-kídà	>	òmútʃìlà	'tail'
*-jánìkè	>	òmwánìtʃè	'child'

t

2.2.6.2 Voiced plosives *b *d *j *g

Proto-Bantu *b* is realized in most contexts as [β]. Hyman (2003a) notes that there is disagreement among Bantuists as to the status of oral consonants (*b, *d, and *g) in Proto-Bantu, since they surface as continuants ([β], [l], [ɣ]) in so many Bantu languages, including Totela. Post-nasally, Totela has the allophone [b]. Before *i, *b > [z] spirantization is seen

(30b). Spirantization before *u has produced the change *b > [v] in many Bantu Botatwe languages; in the variety of Zambian Totela studied here, it has further lenited to labialized glottal fricative [h], often accompanied by some degree of nasalization (30c).

(30)   *b

    a. *b > β[18]

*-bɪ̂ɪ̀	>	òβúβì	'bad(ness)'
*-búbì	>	íβùβì	'spider'
*-bókò	>	íβòkò	'arm'
*-gùbà	>	ìhʷùβà	'bellows'

    b. *b > z (before *i)

*-bímbà	>	òkúzìmbà	'(to) swell'

    c. *b > (n)h (before *u)

*-búì	>	ínhʷwì	'white hair'
*-búdà	>	ínhʷùlà	'rain'
*-bú	>	íhʷù	'soil'

PB *d corresponds regularly to Totela [l], except before historically high vowels, where it has spirantized to [z].

(31)   *d

    a. *d > l

*-dímì	>	òlúlìmì	'tongue'
*-kúdú	>	òmúkùlù	'adult'
*-tádè	>	òβútàlè	'iron ore'
*-gìdò	>	ìʤìlò	'yesterday, tomorrow'
*-kádá	>	náŋkàlà	'crab'

    b. *d > z (before *i and *u)

*-kádí	>	òmúkàzì	'woman, wife'
*-dèdù	>	òmúlèzù	'beard'

The conditioning of PB *j reflexes in Totela is unclear. Reflexes are [∅], [y], and [(n)z]. Bostoen (2009:115) argues that in cases of a null reflex, it may not be necessary to reconstruct *j for Proto Bantu at all. In the data examined, *j deleted before *i, *e, and *a, although this possible conditioning may be an artifact of the data available. One piece of evidence that a PB consonant may in fact have been lost is the seeming insertion of a H tone (often resulting in a falling tone) in many of these environments.

Other instances of *j surface in Totela as [y] or [z] (sometimes *nz*). Conditioning is not clear, and varies across the Bantu Botatwe languages, as well (see also Bostoen 2009). Many cases of *j > [nz] occur in class 9/10, which has a nasal prefix, but they can be found in other environments, as well (see 'water' in 32c below).

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[18] *íβòkò* 'arm' is used by some Totela speakers in Zambia; others judge it as Luvale.

(32) *j

    a. *j > ∅

*-jìtìd	>	òkwítìlà	'(to) pour'
*-jínò	>	èlîìnò	'tooth'
*-jédì	>	òmwéèzì	'moon'
*-játò	>	òβwáàtò	'canoe'
*-jìj	>	òkwìzà	'(to) come'

    b. *j > y

*-jímb	>	òkúyìmbà	'(to) sing'
*-júm	>	òkúyùmà	'(to) dry'
*-jót	>	òkúyòòtà	'(to) warm oneself'

    c. *j > (n)z

*-jògù	>	ìnzòh^wù	'elephant'
*-jíjòd	>	òkwízùlà	'(to) become full'
*-jíjìb	>	òkwízìbà	'(to) (come to) know'
*jíjì	>	àméènzì	'water'

In most contexts, *g is deleted or surfaces as a homorganic glide in Totela (33a). Before high front vowel *i, *g has spirantized to z (33b). Before *u, the *g reflex — realized as labiodental v or f in other Bantu Botatwe languages (Bostoen 2009:118) and v in some Zambian and Namibian Totela varieties — surfaces as h, with varying degrees of nasalization, in the Kweemba variety described here (33c).

(33) *g

    a. *g > ∅/glide

*-gì	>	òkùyà	'(to) go'
*-gʊ̀	>	òkùwà	'(to) fall'
*-gʊ̀dʊ̀k	>	òkùùlùkà	'(to) fly'
*-gènd	>	òkùyèndà	'(to) walk'
*-gòdí	>	òlùwózì	'string'
*-gàŋgà	>	sìyàŋgà	'medicine man'

    b. *g > z (before *i)

*-gìgè	>	ìnzìyè	'locust'
*-ngì	>	òmùnzì	'village'
*-dògì	>	òmùlòzì	'witch'

    c. *g > (n)h (before *u)

*-gùbà	>	ìh^wùbà	'bellows'
*-jògù	>	ìnzòh^wù	'elephant'

2.2.6.3 Nasals *m *n *ny

PB nasals have been preserved in Totela, as shown in (34)–(36).

(34)   *m > m
    *-mìn   >   òkùmìnà   'swallow'
    *-múm   >   òkúlìmùmà   '(to) be silent'
    *-bùmò   >   ìh^{w}ùmò   'stomach'
    *-támà   >   àmátàmà   'cheeks'

(35)   *n > n
    *-nùŋk   >   òkùnùŋkà   '(to) smell'
    *-nénè   >   ́nènè   'big'
    *-jínò   >   èlînò   'tooth'
    *nà   >   nà   'and'

The reflex of PB *ɲ is also [ɲ] (*ny*) in Totela, except in some varieties when followed by a glide. An example is the word for 'to drink', which has [n]. Reflexes of *ɲ in 'to drink' vary between *ny* and *n* across Bantu Botatwe (Bostoen 2009:116), with some Zambian Totela varieties maintaining *ny*, as does Tonga (Bostoen 2009:116). This is the only known example of an [n] reflex of PB *ɲ in Totela.

(36)   *ɲ > ɲ (ny)
    *-ɲàmà   >   ìɲàmà   'meat'
    *-ɲó   >   òkúnwà (or   '(to) drink'
                òkúnywà)

2.2.6.4   NC clusters *mp *nt *nk *mb *nd *ng

Similarly, voiceless (as in (37)–(39)) and voiced (as in (40)–(42)) nasal clusters surface unchanged in Totela, except in those cases where spirantization applies (see (43) and discussion below).

(37)   *mp > mp
    *-pépò   >   ímpè(w)ò   'cold'

(38)   *nt > nt
    *-ntʊ̀   >   òmùntù   'person'

(39)   *ŋk > ŋk
    *-nùŋk   >   òkùnùŋkà   '(to) smell'

(40)   *mb > mb
    *-gàmb   >   òkù(w)àmbà   '(to) speak'
    *-yìmb   >   òkúyìmbà   '(to) sing'

(41)   *nd > nd
    *-gènd   >   òkùyèndà   '(to) walk'

(42)   *ŋg > ŋg
    *-zíŋg   >   òkúzìŋgà   '(to) wrap up'

Although data are not available for all possible contexts, it seems that NC clusters do undergo spirantization in at least some cases, although apparently not for *p*.

(43)   Spirantization (or lack thereof) in NC clusters
   *-pígò > ìmpíyù   'kidney'
   *-gèndì > òmùyènzì 'walker'
   *-kíŋgó > ínsìŋgò   'neck'
   *-ŋgì   > òmùnzì   'village'

2.2.6.5 Meinhof's Law

Meinhof's Law (based on Meinhof 1913) , also known as Meinhof's Rule, is a process affecting voiced plosive consonants in NC clusters: the first (voiced) consonant is deleted when the sequence is followed by another NC cluster (i.e. NCVNC > NVNC). This process is found in Totela, as in other Bantu Botatwe languages (Bostoen 2009:119). In the examples in (44), the initial NC clusters are created by contact with class 9/10 nasal prefixes.

(44)   NCVNC > NVNC
   *-dʊ̀ŋgʊ́ > ʧàmìnúŋgwè 'porcupine'
   *-   > ìŋòmbè   'cattle'
   gòmbè

2.2.7 Practical orthography

For ease of writing and reading, a practical orthography will be used in the rest of this study. All tones, H and L, will be marked. Other differences from IPA as follows:

IPA Symbol	Practical Orthography
b	bb
ɲ	ny
ɳ	ñ
β	b
ʃ	sh
ʧ	ch
ʤ	j
hʷu	hu

Table 2.16: Practical orthography conventions

This writing system is similar, but not identical, to the system used for writing Lozi.[19]

Vowel coalescence will not be transcribed when it occurs across words, but it will be transcribed within words (e.g. *àmà-ìnzì* is written *àméènzì*).

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[19]A major difference is that Lozi orthography generally uses *c* rather than *ch*, although there are exeptions.

Vowel length will be represented as two consecutive vowels (e.g. *àà*). Long vowels will only be represented as long in the orthography if they are potentially contrastive (see 2.2.4.1 above) or if they are the result of vowel coalescence; e.g. *òkùzììkà* 'to bury' and *èlîìnsò* 'eye' but *zîmbà* 'swell! (imp.)'.

Because glides (*w* and *y*) are generally pronounced between non-homorganic vowel sequences, such sequences will consistently be written with glides. Note that there may be some variation in production.

2.3   Basic Verbal Morphology and Syntax

2.3.1   Verbal Morphology

To understand Totela's verbal morphology, it is helpful to first examine a general Bantu verbal template, as given by Nurse (2008:40, ex. 26). Bolding indicates slots where tense/aspect markers occur in Totela.

(45)   **Pre-SM** | SM | NEG$_2$ | **TA** | OM | Root | **Ext**. | **FV** | Post-FV

In a typical Bantu language, a verb can consist minimally of a root and final vowel (e.g. 2nd person singular imperatives) and can maximally fill all of these slots, sometimes with two or more markers.

A variety of functions are performed by morphemes at PRE-SM (before the subject marker); new markers tend to grammaticalize at this or the final edge of the verb. Some common functions include "primary" negative (NEG$_1$) or bound object relative markers. Tense and aspect may also be marked in this position. SM is the subject marker slot, obligatory in most tenses and aspects. A "secondary" negative may occur at NEG$_2$. Historically, this negative typically occurred in "non-main clause contexts" (e.g. subjunctives, relatives, etc.), and this is the case in many languages today, but some languages have broadened the contexts in which NEG$_2$ may be used. The next slot, TA is for tense and aspect; many languages allow multiple morphemes here. Also encoded here may be modality, directionals, focus, mood, and taxis. This slot collapses Meeussen's FORMATIVE and LIMITATIVE slots, which may be useful in some languages, but because ordering principles are more complex and nuanced than a simple two-way division, Nurse (2008) prefers to posit one slot with language-dependent inner ordering principles.[20] Following TA is the OM (object marker) slot, where one or more object markers may occur. The object marker is typically closest to the ROOT, followed by various valence-changing verbal EXTENSIONS and a FINAL VOWEL (FV), usually *a, e,* or *ɪ*. The final *-ile* may also occur here, as may the plural (imperative) marker *-eni*. Following the final vowel may again be a variety of markers, since new

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[20]Meeussen proposed a small set of markers for the limitative slot, including persistive *kí* and itive (etc.) *ka*. However, these morphemes only occur in this position in some languages, so a distinct slot seems not to be cross-linguistically motivated, according to Nurse (2008:35).

morphemes typically grammaticalize to word edges. Common in this position are locatives, object pronouns, and a variety of other markers (Nurse 2008:31-40).[21]

The following sections (2.3.1.1-2.3.1.7) briefly discuss the verbal slots as they appear in Totela. Unless otherwise noted, the positions in Nurse's template may be assumed to hold.

2.3.1.1 Negation: pre-SM and internal negation

In all but infinitives, non-periphrastic negation occurs at pre-SM, with the negative marker *ta-*. Negative *ta-* precedes all other pre-SM markers and can co-occur with every other verbal marker (although the negation of the post hodiernal future is periphrastic with *tali*, as in (47)). Pre-SM negation with *ta-* is found in both main and relative clauses (see 2.3.2 for a brief introduction to relative clauses).

(46) **tà**ndìnàkáchìhálìkà

    tà-ndì-nà-ká-chì-hálìk-à
    NEG-1SG-PST-PREHOD-CL7-roast-FV

    'I didn't roast it (e.g. yesterday)' (ZT2009Elic26)

(47) **tàlí** ꜜnándìlwê

    tà-lí   ꜜná-ndì-lu-ê
    NEG-be SIT-1SG-fight-FV.SBJV

    'I won't fight (e.g. tomorrow)' (ZT2009Elic53)

Internal negation was observed only with infinitives, where it takes the form of H-tone carrying *-ta-* or *-sa-*, triggering downstep before H-toned roots

(48)   a. *òkúsàsèkà*

        òkú-**sà**-sèk-à
        INF-NEG-laugh-FV

        'to not laugh' (ZT2009Elic82)

    b. *òkúꜜsáyàsà*

        òkú-ꜜ**sá**-yàs-à
        INF-NEG-spear-FV

        'to not spear' (ZT2009Elic82)

The initial *tandi-* in negation with 1sg subjects is often suppleted by *si-*. Suppletion is not possible with any other subject marker.

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[21]This templatic structure represents a very basic and simplified approach to Bantu verbal morphology. One particular flaw may be its lack of hierarchical structure; a hierarchical structure seems to be motivated both prosodically and functionally: [Pre-SM+SM+NEG$_2$+TA+[OM+[[Root+Ext]$_{\text{DERIVATIONAL STEM}}$+FV]$_{\text{INFLECTIONAL STEM}}$]$_{\text{MACROSTEM}}$+PostFV]$_{\text{VERBAL WORD}}$ Unfortunately, further discussion of these issues is outside the scope of the present work (but see Nurse 2008:40-42 for further details and references).

2.3.1.2   The TA(M) slots: pre-SM and pre-OM

Tense, aspect, and mood markers are treated extensively in chapter 7 and throughout the study. Here I will merely note that markers of tense and aspect occur in both the pre-SM and TA slots in Nurse's verbal template, as well as in extensions (e.g. -*ang*-) and post-FV. For the latter two slots, see below.

Pre-	**SM**	**Pre-**	**OM**
ka-	prehodiernal imperfective	-*a*-	completive
na-	situative	-*na*-	past
na-	posthodiernal future	-*ka*-	prehodiernal past
		-*la*-	present
		-*li*-	present stative
		-*chi*-	persistive
		-*ka*-	distal

Table 2.17: TAM in pre-SM and pre-OM slots

The co-occurence of pre-SM with pre-OM TA markers is semantically restricted. Past -*a*- coalesces with the SM vowel and always co-occurs with prehodiernal past -*ka*-. Aside from this obligatory co-occurrence, pre-OM TA markers may co-occur in the same slot, with fixed ordering, as detailed in table 2.18.

-*a-na*-	completive + past (pluperfect meaning)
-*a-na-ka*	completive + past + distal
-*a-ka*-	completive + distal
(-*na-ka*-)	past + prehodiernal (co-occur obligatorily in negative)
(-*na-ka-ka*-)	past + prehodiernal + distal
-*ka-ka*-	prehodiernal + distal
-*na-chi*-	past + persistive
-*na-ka*-	past + distal
-*la-ka*-	present + distal
-*li-ka*-	present stative + distal
-*chi-ka*-	persistive + distal

Table 2.18: Combinations of pre-OM TA markers

There is an obvious semantic clash between the prehodiernal imperfective and the persistive markers, and these may not co-occur. The present markers do not co-occur with persistive -*chi*-, possibly because they fill the same templatic slot. When -*chi*- is not preceded by a pre-SM marker, the default reading is present or near-future. In the negative prehodiernal past, -*na*- and -*ka*- co-occur obligatorily; they do not co-occur in the affirma-

tive. Because the distal can co-occur with any of the other markers, it may be assumed to occupy its own slot, closest to the object marker.[22]

2.3.1.3 Subject markers

Totela has subject markers for persons (1, 2, and 3 sg. and pl.; shown in table 2.19), as well as for each of its noun classes (table 2.20). Subject marking is obligatory and must agree with the grammatical subject. Generally speaking, SMs surface as toneless, except after certain pre-initials (e.g. prehodiernal imperfective *ka-*) and in non-indicative moods.

	Singular	Plural
1	ndi-	tu-
2	u-	mu-
3	a-	ba-

Table 2.19: Totela person subject markers

Note that the 3SG and 3PL markers are identical to class 1 and 2 markers, respectively. See appendix D for more details on person and noun class agreement, as well as a discussion about the resolution of agreement clashes when two nouns from different classes are conjoined.

2.3.1.4 Object markers

While subject markers are obligatory, object markers are optional and may occur with or without an overt object. The forms are given in tables 2.21 and 2.22 for persons and noun classes, respectively, including the reflexive marker -*li*-. As depicted by the floating Hs in the tables (´), singular person object markers are toneless, but all others (plural person and all noun classes)[23] have a H tone, which surfaces on the preceding syllable.

It should be noted that while the object marker for class 15 nouns, which are few – class 15 is mostly infinitive verbs which have a defective agreement pattern (see appendix D) – is ´*ku-*, in practice, the class 1 object marker is usually used.

Totela verbs can apparently take a maximum of two object markers. The indirect object marker precedes the direct object marker. Regardless of the usual tone of the first (=direct object) marker, it becomes H in this position (surfacing on the preceding syllable):

(49)　*bámùndípà*

　　bá-**mù-ndí**-pà
　　3PL-3SG(DO)-1SG(IO)-give

　　'they gave him to me' (ZT2009Elic41)

---

[22]I do not have any data on the possibility of past + persistive + distal -*na-chi-ka*-, which seems a likely possibility, as well.

[23]Noun class 1, identical to 3rd-person singular, is toneless.

Noun Class	Subject Marker
1(a)	a-
2(a)	ba-
3	u-
4	i-
5	li-
6	a-
7	chi-
8	zi-
9	i-
10	zi-
11	lu-
12	ka-
13	tu-
14	bu-
15	ku-
16	a-
17	ku-
18	mu-

Table 2.20: Totela noun class subject markers

	Singular	Plural
1	-ndi-	́tu-
2	-ku-	́mi-
3	-mu-	́ba-

Table 2.21: Totela person object markers

(50) *bá**mùmì**pà*

bá-**mù-mì**-pà
3PL.CMPL-3SG(DO)-2PL(IO)-give

'he gave him to you (pl)' (ZT2009Elic41)

With most trivalent Totela verbs, there seems to be at least a slight preference for only one object marker, with the other argument lexically expressed.

2.3.1.5   Verbal extensions

Verbal extensions are quite common in Totela, as in other Bantu languages. They include some frozen, unproductive forms, as well as numerous completely productive extensions.

Noun Class	Subject Marker
1(a)	-mu-
2(a)	-́ba-
3	-́u-
4	-́i-
5	-́li-
6	-́a-
7	-́chi-
8	-́zi-
9	-́i-
10	-́zi-
11	-́lu-
12	-́ka-
13	-́tu-
14	-́bu-
15	(-́ku-)
16	-wô
17	-kô
18	-mô
refl	-́li-

Table 2.22: Totela noun class object markers

Hyman (2007a) categorizes the functions of verbal extensions in Niger-Congo as follows:

(51)   Niger-Congo extension functions (Hyman 2007a:149)
   a.   *increase valence*: causative, benefactive, dative, instrumental, locative, etc.
   b.   *decrease valence*: passive, reciprocal, stative, middle, etc.
   c.   *(re-)orient action*: reversive, directionals (goal/source, towards/from speaker), etc.
   d.   *mark aspect*: pluractional, inchoative, resultative, perfective/imperfective, etc.

Schadeberg (2003) reconstructs a number of extensions in Proto-Bantu. These are given in table 2.23.

The forms and meanings of a number of extensions in Totela are discussed briefly below. In many cases, several of the productive extensions may appear in one word. When this occurs, the extensions are generally, but not always, ordered following the CARP (Causative-Applicative-Reciprocal-Passive) template proposed in Hyman (2003b). Some of the possible combinations are shown in the discussions of particular extensions below. Extensions are relevant for the discussion of tense and aspect in that they can affect situation type and

*-i-/-ici-	causative
*-ɪd-	dative (applicative)
*-ɪk-	impositive
*-ɪk-	neuter
*-am-	positional
*-an-	associative (reciprocal)
*-ag- ∼ -ang-	repetitive
*-ad-	extensive
*-at-	tentive (contactive)
*-ʊd-; -ʊk-	separative tr.; itr. (reversive)
*-ʊ-/ -ibʊ-	passive

Table 2.23: Reconstructed PB extensions (Schadeberg 2003:72 and Hyman 2007a:151)

hence interpretations with particular tense/aspect markers. For example, passive forms are sometimes more amenable to marking with stativizing *-ite* than are their active counterparts.

Applicative: *-il-/-el-/-in-/-en-/-iz-/-ez-* The applicative increases the valency of a verb so that it can express (e.g.) the beneficiary as an object rather than as an oblique. The applicative has been reconstructed as *-ɪl-* for Proto-Bantu and surfaces in Totela with both vowel and consonant harmony.

As with the *-ite* suffix (see chapter 6) and other extensions and suffixes descended from PB -ɪC- sequences, mid-height vowel harmony applies, so that the extension vowel is *i* when *a*, *u*, or *i* occurs in the preceding syllable. It harmonizes to *e* following *e* and *o*. The consonant *l* harmonizes to *n* after nasal consonants, and to *z* after the alveolar fricatives of the causative extension (either from causative *-is-* or causative *-i*–conditioned spirantization).

(52) Vowel harmony

    a. Following *a*
      *òkúyàs**ìl**à*
      òkú-yàs-**ìl**-à
      INF-spear-APPL-FV

      'to spear for'

    b. Following *i*
      *òkùchìs**ìl**à*
      òkù-chìs-**ìl**-à
      INF-hurt-APPL-FV

      'to hurt for'

c. Following *u*

*òkùwùl**ìl**à*

òkù-wùl-**ìl**-à

INF-buy-APPL-FV

'to buy for'

d. Following *e*

*òkúyèch**èl**à*

òkú-yèch-**èl**-à

INF-roast.in.ashes-APPL-FV

'to roast for'

e. Following *o*

*òkúñòl**èl**à*

òkú-ñòl-**èl**-à

INF-write-APPL-FV

'to write for'

(53) Nasal harmony

a. Nasal harmony following *m òkútùm**ìn**à*

òkú-tùm-**ìn**-à

INF-send-APPL-FV

'to send to'

b. Nasal harmony following *n òkùmàn**ìn**à*

òkù-màn-**ìn**-à

INF-finish-APPL-FV

'to finish there'

c. *l > z* after causative *z* or *s òkùwùlìs**ìz**à*

òkù-wùl-ìs-**ìz**-à

INF-buy-CAUS-APPL-FV

'to sell for'

As evidenced in the above examples, the applicative extension can mean to do X *for* (52) or *to* (53a) a person or thing, or *in* or *to* a place, as in (53b) and in example (54), which shows the applicative used with allative ('to, towards, into', as in (54b)) and locative (54c) expressions:

(54) a. *mwàsòtòká mùchífùndà*

mwa-sotok-a   mu-chifunda

2PL.CMPL-jump-FV CL18(LOC)-CL7.circle

'you jumped **out of** the circle' (ZT2009Elic77.CM, *stimuli*)

b. *mwàsòtòk**èl**á mùchífùndà*

mwa-sotok-**el**-a   mu-chifunda

2PL.CMPL-jump-APPL-FV CL18(LOC)-CL7.circle

'you jumped **into** the circle' (ZT2009Elic77.CM, *stimuli*)

c. *mwàsòtàwùk**ìl**á mùchífùndà*

mwa-sot-awu-k-**el**-a   mu-chifunda

2PL.CMPL-jump-ITER-APPL-FV CL18(LOC)-CL7.circle

'you jumped up and down **inside** the circle' (ZT2009Elic77.CM, *stimuli*)

Causative: -*is*- and -*i*- (with consonant mutation)   Totela has two causative extensions, -*is*- (with no mid-height vowel harmony) and -*i*-, which triggers somewhat complex processes of consonant mutation. These two patterns can be traced back to Proto-Bantu *-*ici*- and *-*i*-, respectively. The lack of harmony may be attributed to the vowel's origin as high *-*i*- in PB; suffixes such as the applicative, which descended from *-*ɪC*- PB extensions do harmonize (see also Bostoen 2008:313). The -*is*- causative is illustrated in (55). It appears to be the more productive extension synchronically, and can be used with a variety of roots.

(55)   -*is*-: no vowel harmony

     a.   Following *a*

       *òkúswàn**is**à*

       òkú-swàn-**ìs**-à

       INF-resemble-CAUS-FV

       'to draw' (> to make resemble)

     b.   Following *e*

       *òkùsèk**is**à*

       òkù-sèk-**ìs**-à

       INF-laugh-CAUS-FV

       'to make laugh'

Table 2.24 shows the -*i*- causative and some examples of the complex consonant mutation processes it triggers. This extension may still be productive, but appears to be losing ground to the more regular -*is*- causative.

As can be seen in table 2.24 and the above examples, the causative has a variety of meanings, some of which have been lexicalized (e.g. -*wula* 'buy' and -*wuzya* 'sell'), although the compositional semantics are still fairly transparent. In addition to meaning 'to make or cause (X) to do Y', the causative can also be used as an instrumental (56), an intensive (57), and with the meaning 'to help (X) do Y' (58). Causative extension meanings are dependent on both context and the verb root to which they attach.

òkù-yè**nd**à	'to walk'	→	òkù-yè**nzy**à	'to make walk/use to walk'
òkú-pè**ng**à	'to suffer'	→	òkú-pè**nzy**à	'to cause to suffer'
òkù-sà**mb**à	'to bathe'	→	òkù-sà**nzy**à	'to wash (tr.)'
òkù-wù**l**à	'to buy'	→	òkù-wù**zy**à	'to sell'
òkù-bòò**l**à	'to return (intr.)'	→	òkù-bòò**z**à	'to return (tr.)'
òkù-hùpù**l**à	'to remember'	→	òkù-hùpù**z**à	'to remind'
òkú-kàtà**l**à	'to be tired'	→	òkù-kàtà**z**à	'to tire, trouble'
ókú-tìì**y**à	'to be frightened'	→	òkú-tìì**z**à	'to frighten'
òkú-bùù**k**à	'to wake up (intr.)'	→	òkú-bùù**s**à	'to greet'
òkù-sì**k**à	'to arrive'	→	òkù-sì**sy**à	'to help/cause to arrive'
òkù-ùkù**t**à	'to shake (intr.)'	→	òkù-ùkù**s**à	'to shake (tr.)'
òkwízì**b**à	'to come to know'	→	òkwíz(ì)**y**à	'to teach'
òkù-làngìlì**l**à	'to look at everything'	→	òkù-làngìlì**s**à	'to look at everything'

Table 2.24: Consonant mutation with causative -*i*-

→z(y)	→s(y)	→y
(n)d	k	b
(n)g	t	
(m)b	l	
l		
y		

Table 2.25: Summary of known consonant mutation and deletion with causative -*i*-

(56) *ínkòlì yôkùyè**nzy**à*

    inkoli   i-oku-ye**nzy**-a
    CL9.stick CL9-INF-walk.CAUS-FV

    'walking-stick, cane'

(57) òkù-làwùk-**ìs**-à
    INF-run-CAUS-FV

    'to run hard, to run a lot'

(58) *òkùyè**nzy**á àkàchèchè*

    oku-ye**nzy**-a   akacheche
    INF-walk.CAUS-FV CL12.child

    'to help the little child walk/to walk the baby'

There is apparently also some contrast when the -*is*- and -*i*- causatives can attach to the same root. The -*i*- form seems to contribute a more canonically causative meaning, while the -*is*- form is often an intensifier. This contrast can be observed in (59).

(59) a. òkù-làwùs-a
      INF-run.*i*.CAUS-FV
      'to chase [= to make run]'

   b. òkù-làwùk-**ìs**-à
      INF-run-*is*.CAUS-FV
      'to run hard, to run a lot'

The two causatives may also be used together with the same root: the consonant-mutating *-i-* extension precedes (and sometimes also follows) *-is-*, as in (60).

(60) a. òkù-hùpùz-**ìs**-à   (-*hupula* 'remember, think about')
      INF-remember.*i*.CAUS-*is*.CAUS-FV
      'to think about a lot'

   b. òkù-yènz-**ìs**-**y**-à   (-*yenda* 'walk')
      INF-walk.*i*.CAUS-*is*.CAUS-*i*.CAUS-FV
      'to make walk a lot' (ZT2009Elic113)

Reciprocal: -*an*-   The reciprocal extension -*an*- (PB *-*an*-) contributes the meaning 'X each other'. It alternates, and even co-occurs with the reflexive object marker -*li*-, as illustrated in (61).

(61) a. *tùlàsàk**àn**à*
      tù-là-sàk-**àn**-à
      1PL-NONCMPL-like-RECIP-FV
      'we like each other'

   b. *tùlá**lì**sàkà*
      tù-lá-**lì**-sàk-à
      1PL-NONCMPL-REFL-like-FV
      'we like each other'

   c. *tùlá**lì**sàk**àn**à*
      tù-lá-**lì**-sàk-**àn**-à
      1PL-NONCMPL-REFL-like-RECIP-FV
      'we like each other'

Intensive/Completive: reduplicated applicative (-*ilil*- etc.)   A reduplicated applicative extension (-*ilil*-, etc.) indicates that an action is performed thoroughly and to completion, possibly precluding further action in that situation. Example (62c) shows that the completive meaning can also be distributed across a whole group. (62d) shows a slightly extended form with monosyllabic stems.

(62) a. *òkùsàmb**ìlìl**à*

      òkù-sàmb-**ìlìl**-à

      INF-bathe-INTENS-FV

      'to bathe and become completely clean' (ZT2006Elic89)

    b. *ndékùt**ìlìl**à*

      nda-ikut-**ilil**-a

      1SG.CMPL-get.full-INTENS-FV

      'I'm completely full' (ZT2006Elic89)

    c. *òkùnyàmùk**ìlìl**à*

      òkù-nyàmuk-**ìlìl**-à

      INF-set.off-INTENS-FV

      'to set off (e.g. everybody goes)' (ZT2009Elic99.CN)

    d. *òkwì**lìlìl**à*

      oku-i-**lilil**-a

      INF-go-INTENS-FV

      'to go forever' (ZT2006Elic89)

Passive: -*(i)w-*   The passive marker -*w*- or -*iw*- (*-ʊ-/*-*ibʊ*- in PB) always occurs immediately before the final vowel, even "breaking into" other morphemes like -*ite*. In general, choice of -*w*- or -*iw*- seems to be a matter of speaker preference. At least some older speakers appear to prefer -*iw*- in many cases. Sometimes -*w*- is preferred for prosodic reasons, e.g. following -*l* and other extensions.

(63) a. *òkúkàmb**ìw**à*

      òkú-kàmb-**ìw**-à

      INF-lick-PASS-FV

      'to be licked'

    b. *òkúwès**w**à*

      òkú-sès-**w**-à

      INF-marry-PASS-FV

      'to get married (said of a woman)'[24]

    c. *òkùwàmbìl**w**à*

      òkù-wàmb-ìl-**w**-à

      INF-speak-APPL-PASS-FV

      'to be told'

---

[24]Note also that -*sesa* 'to marry (said of a man)' appears itself to be a causative form related to -*sela* 'propose'), and possibly also to *èchísèmò* and -*òmúsè* 'love'.

d. *òkùchìswà*

òkù-chìs-**w**-à

INF-hurt(CAUS)-PASS-FV

'to be hurt, to be sick'

e. *ndìlìsèsètwè*

ndì-lí-sès-èt-**w**-è

1SG-PRES.STAT-marry-ITE-PASS-ITE

'I am married' (said by a woman)

Neuter: *-ik-/-ek-* The harmonizing neuter extension *-ik-/-ek-* (PB *-ɪk-) serves a number of functions, including giving middle voice, and as a sort of causative, possibly "refer(ing) to a resultant state without any indication of an agent" (Spencer (ms.)). Often, the compositional semantics are no longer transparent. Some examples are given in (64).

(64) Some vocabulary items with the neuter extension

òkùkònzèkà	'to be possible'	(cf. *-konzya* 'be able to')
òkúlùmìkà	'to bleed someone'	(cf. *-luma* 'bite')
òkùwàànìkà	'to put together, mix'	(cf. *-waana* 'find')
òkùnànìkà	'to soil'	(cf. *-nana* 'apply oil, etc.'(?))
òkúchìtìkà	'to happen'	(cf. *-chita* 'do'
òkúsùwìkwà	'to be understandable'	(cf. *-suwa* 'hear, understand' + pass)
òkútàlìkà	'to begin'	
òkúyànzìkà	'to hang up'	
òkúhànìkà	'to cover (e.g. w/plate)'	
òkùchànchàlìkà	'to trip (walking)'	

The neuter extension also may appear in causative + applicative combinations, as illustrated in (65). The exact morphological composition of (65b) is unknown.

(65) a. *ùndìwùzìkìzyê!*

u-ndi-wu-z-**ik**-izy-e

2SG-1SG-buy-CAUS-NEUT-APPL.CAUS-FV.SBJV

'sell for me!' (ZT2009Elic54)

b. *òkútùmìnìkìzà*

òkú-tùm-ìn-**ìk**-ìz-à

INF-send-APPL-NEUT-APPL.CAUS(?)-FV.SBJV

'to send (s.o.) for something' (ZT2009Elic99)

Iterative: *-awul-/-awuk-* The repetitive extension is also found in Lozi (Gowlett 1989). It indicates that an action is done multiple times. Examples are in (66). The *-awuk-* variant seems to occur with intransitive roots.

(66) Iterative extensions

òkùtyòòl**awù**là	'to break into pieces'	(> -*tyoola* 'break (tr.)')
òkúwàmb**àwù**là	'to converse'	(> -*wamba* 'speak')
òkùkàb**àwù**là	'to beat repeatedly'	(> -*kaba* 'beat')
òkùsòt**àwǩ**à	'to jump up and down'	(> -*sotoka* 'jump'

Habitual: ***-ang-***   The extension -*ang*- (PB *-*ag*- or *-*ang*-) serves an aspectual function in Totela. When used in present contexts (67a), it emphasizes that an situation occurs habitually. It has this same meaning with imperfective *ka*- in the past (67b), but because the imperfective aspect also covers habitual meaning, it is optional. The final vowel of -*anga* is occasionally negated with -*i* by some speakers.[25]

(67)   a. *tùláyàs**àng**à*
        tù-lá-yàs-**àng**-à
        1PL-NONCMPL-spear-HAB-FV

        'we spear (regularly)'

       b. kà-tù-yás-**àng**-à
        PREHOD.IPFV-1PL-spear-HAB-FV

        'we used to spear (regularly)' (ZT2009Elic58)

Habitual -*ang*- is sometimes treated as extrametrical with respect to H-tone assignment, and sometimes it is treated as part of the stem, as shown in (68) with prehodiernal imperfective forms, which surface with penultimate H (and, frequently, H plateauing on the stem). Some speakers sometimes expressed preference for the extrametrical -*nga*- tone pattern in (68a).

(68)   a. -*nga*- extrametrical:
        *kàtùtòbél**àng**à*
        kà-tù-tòbél-**àng**-à
        PREHOD.IPFV-1PL-seek-HAB-FV

        'we used to seek...' (ZT2009Elic67)

       b. -*nga*- included in stem:
        *kàtùtòbèl**âng**à*
        kà-tù-tòbèl-**âng**-à
        PREHOD.IPFV-1PL-seek-HAB-FV

        'we used to seek...' (ZT2009Elic67)

Interestingly, a very similar marker, -*nga*, can itself act as an auxiliary in compound verbal expressions, both affirmative and negative. As shown in (69b) and (69c), the main verb may also take the -*ang*- extension.

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[25]Final -*anga* is regularly negated as -*angi* in Namibian Totela. Nurse (2008:38) notes that in many languages, -*a(n)g*- occurs in pre-final position. Rather than being classified in a group with other extensions, it belongs with the final vowel.

(69)   a. *bángà nàbàyá mùkùnèngà*

bá-**ngà**   nà-bà-y-á   mù-kù-nèng-à

3PL-HAB SIT-3PL-go-FV CL18(LOC)-INF-dance-FV

'they (habitually) go dancing' (ZT2009Elic70)

b. *tàndíngà nàndìlàwúkà*

tà-ndí-**ngà**   nà-ndì-làwúk-à

NEG-1SG-HAB SIT-1SG-run-FV

'I don't (regularly/ever) run' (ZT2009Elic69)

c. *tàndíngà nàndìlàwùkângà*

tà-ndí-**ngà**   nà-ndì-làwùk-**âng**-à

NEG-1SG-HAB SIT-1SG-run-HAB-FV

'I don't (regularly/ever) run' (ZT2009Elic69)

Reversive: -ul(ul)- (and -un(un)-) (tr.)/-(ul)uk- (intr.)   The reversive extensions (similar to the PB forms *-ʊl- (transitive) and *-ʊk- (intransitive)), which do not seem to be productive, typically indicate the *un*-doing or reversal of a process. *-ul(ul)-* occurs with transitive verbs, and *-uk-* with intransitive verbs. Nasal harmony is found with *-ul(ul)-*, as seen in the last example in (70). The reduplicated extensions generally have a more iterative or intensive meaning.

(70)   Reversive extensions

òkùkùmb**ùl**à	'to peel off'	
òkwíjàl**ùl**à	'to open'	(cf. *-ijala* 'close')
òkùsànd**ùk**à	'to change'	
òkùzìng**ùlùk**à	'to turn (around), encircle'	(cf. *-zinga* 'roll (sth.')')
òkúsùm**ùnùn**à	'to untie'	(cf. *-sumina* 'tie')

Schadeberg (2003:78) argues that "reversive" cannot have been the original meaning of this extension, because of the many verbs with this (frozen) extension "for which no plausible non-reversive source can be imagined", such as *-salula* 'choose'.

Extensive: -al- (frozen)   The extensive extension *-al-* (PB *-al-) occurs frozen in a few verbs dealing with spread-out positions, including those in (71).

(71)   Extensive extension

òkúlà**àl**à	'to lie down'
òkwík**àl**à	'to sit down, stay'

Tentive: -at- (frozen)   Tentive (or contactive *-at-* (PB *-at-) also occurs frozen on a few verbs, such as those in (72).

(72) Tentive extension
        òkúkwààtà   'to grab, take hold of'
        òkùlam**àt**ìlà   'to stick to' (with appl.)

Positional: -*am*- (frozen)   The unproductive positional extension -*am*- (PB *-*am*-) occurs on a great many verbs describing positions, including those in (73).

(73) Positional extension
        òkúlìsùng**àm**ìnà   'to sit sadly, with head hanging'
        òkùkàn**àm**à   'to sit alone, doing nothing'
        òkùbbwàt**àm**ànà   'to sit (a very fat person)'

2.3.1.6   Final vowel

Final vowels in Totela serve largely to indicate mood. There are three possible final vowels: -*a*, -*e*, and -*i*. These uses are exemplified below and summarized in table 2.26. -*a* occurs in most indicative contexts, and in singular imperatives (74). The -*e* final occurs in subjunctive moods, and optionally as the negated form of -*mana* 'finish' (75). Final -*i* is found with a subset of verbs negated with the prefix *ta*-: monosyllabic roots, -*suwa* 'to hear', and -*saka* 'to want' (76). -*i* appears on monosyllabic roots, -*saka*, and -*suwa* with *ta*- negatives forms in all applicable tenses; (76d) shows an example.

(74) Final vowel: -*a*
        a. Present indicative
            *ndìlálààl**à***

            ndì-lá-lààl-**à**

            1SG-PRES-sleep-FV

            'I sleep'
        b. Present negative (most roots)
            *tàbálààl**à***

            tà-bá-lààl-**à**

            NEG-3PL-sleep-FV

            'they don't sleep'
        c. Imperative (sg.)
            *zîìk**à***

            zîìk-**à**

            bury-FV.IMP

            'bury!' (sg.)

    d. Past indicatives (all degrees, realis, both completive and imperfective)

       *ndálààl**à***

       ndá-lààl-**à**
       1SG.CMPL-sleep-FV

       'I slept'

    e. Future indicatives

       *nándìlàlààl**à***

       ná-ndì-lá-lààl-**à**
       FUT-1sg-NONCMPL-sleep-FV

       'I will sleep'

    f. Situative *na-*

       *bàkàndìwàànà nàndìly**â***

       bà-kà-ndì-wààn-à   nà-ndì-li-**â**
       3PL.CMPL-PREHOD-1SG-find-FV SIT-1SG-eat-FV

       'they found me eating'

(75)   Final vowel: *-e*

    a. Subjunctive (or polite imperative)

       *mùzîîk**è***

       mù-zîîk-**è**
       2PL-bury-FV.SBJV

       'bury!/may you bury!' (polite or 2PL)

    b. Singular imperative with object marker (becomes subjunctive)

       *bàzîîk**è***

       bà-zîîk-**è**
       3PL(OM)-bury-FV

       'bury them!'

(76)   Final vowel: *-i*

    a. Negative forms with monosyllables

       *tàndíw**ì***

       tà-ndí-u-**ì**
       NEG-1SG-fall-FV

       'I don't fall'

    b. Negatives with *-suwa* 'hear, feel, understand'

       *tàndísùw**ì***

       tà-ndí-sùw-**ì**
       NEG-1SG-hear-FV

       'I don't understand'

c. Negatives with -*saka* 'want, like, love'

tàndìsákì

tà-ndì-sák-**ì**

NEG-1SG-want-FV

'I don't want'

d. Final -*i* with past tense *ta-* negative

tàndìnàsákì

tà-ndì-nà-sák-**ì**

NEG-1SG-PST-want-FV

'I didn't want'

e. Final -*i* with past -*na-*

ndìnâlí

ndì-nâ-li-**ì**

1SG-PST-eat-FV

'I was eating'

FV	Occurrences
-*a*	indicative
	most negative
-*e*	subjunctive (plus
	optionally negatives with
	-*mana* 'finish')
-*i*	negative mono-syllabic roots
	in all tenses when negated
	with -*ta*- (plus -*suwa* 'hear'
	and -*saka* 'want')
	past -*na*- (monosyllables)

Table 2.26: Major final vowel uses (Zambian) Totela

Several other morphemes occur in final position in Totela: -*ite* (see chapter 6) and plural imperative marker -*eni*. As discussed in chapter 6, -*ite* may in fact be bimorphemic (-*it-e*, since the passive extension -*w*- may occur inside of it (-*itwe*).

-*eni*, from post-final *ni (Meeussen 1967:111), marks the plural imperative. It is apparently extra-metrical with respect to tone assignment, as shown in (78), where the imperative with an object marker takes the same pattern with and without final -*eni*. This form may also be analyzed as subjunctive final vowel -*e* plus a post-final -*ni*.

(77) Final -*eni*: plural imperative
*wâmb**èni***

wâmb-**èni**
speak-2PL.IMP

'speak!' (2PL)

(78)   a.   Singular imperative with object marker
bàzɨ́ikè

bà-zɨ̂k-è
3PL-bury-FV.SBJV

'bury them!'

Plural imperative with object marker
bàzɨ́ikèni

b.   bà-zɨ̂k-**ènì**
3PL-bury-2PL.IMP

'bury them!' (2PL)

2.3.1.7   Enclitics

This position is referred to as post-final in Meeussen (1967:111) and post-FV in Nurse (2008). The only Proto-Bantu reconstruction for this position is plural imperative **ni/i* (Meeussen 1967:111). However, since this position is on the word edge, it is natural for new material to grammaticalize into this position (Nurse 2008:39). In Totela, markers for locative noun classes 16, 17, and 18 surface as post-final affixes (-*wô* 'at, on, by', -*kô* 'at, to, from', and -*mô* 'in', respectively) when they are used as goals, sources, and locations. All three markers can serve as goal, source, and location. Some examples are in (79).

(79)   a.   As location
*Nòkèzà kùyá mùkúchìngùlà nòkáchìwààna**mô***

na=o(ku)-ka-iz-a   ku-y-a   mu-ku-chingul-a
COM=NARR-DIST-come-FV NARR-go-FV CL18(LOC)-INF-check-FV
na=o(ku)-ka-chi-waan-a-**mo**
COM=NARR-DIST-CL7-find-FV-CL18(LOC)

'then he came to check [his traps] and found it in there' (ZT2009NarrC6.WS.16, *Tenga, Tenga*)

b.   As goal
*Bòná nòkùtàntà**kô***

bona   na=oku-tant-a-**ko**
3PL.DEM COM-NARR-climb-FV-CL17(LOC)

'and then they climbed up [the tree]' (ZT2009NarrA9.GS, *Kumangwembya*)

c. As source

*Nòkùlòngà**wô** kúsìyà àmàbítà*

na=oku-long-a-**wo**   ku-siy-a   amabita
COM=NARR-move-FV-CL16(LOC) NARR-leave-FV CL6.graves

'then they moved away from that place, leaving behind the graves' (ZT2009Narr-A8.GS, *China Muningi*)

2.3.1.8 Reduplication

As is common across Bantu, many Totela verb roots exhibit partial reduplication. The full verbal stem is also very often reduplicated, giving a wide variety of meanings including 'do X a little', 'do X little-by-little', 'do X poorly', 'do X repeatedly', 'do X here and there', and 'do X a lot'. These meanings are dependent on the particular stems reduplicated, as well as on context. Examples of full stem reduplication may be seen throughout this study. Examples are also given in (80). Tones are not reduplicated in full stem reduplication.

(80)   a. *tùlápònà-pònà*

tù-lá-pòn-à-pònà
1PL-NONCMPL-live-FV-REDUP-FV

'we're getting by/managing to live' (ZT2009Elic55)

     b. *mwìnôkùyèndà-yèndà kùñándà*

mu-ina   oku-yend-a-yend-a   ku-ñanda
2PL-HAVE INF-walk-FV-REDUP-FV CL17(LOC)-CL9.house

'you're pacing in front of the house' (ZT2009Elic70)

2.3.2 Basic syntax

This section offers a brief and very basic introduction to Totela syntax, including information about word order, agreement, and relative clauses.

2.3.2.1 Word order

Like many Bantu languages, Totela has very flexible word order. This flexibility is assisted by disambiguating subject and object agreement marking on the verb, but is not constrained by it: even if the subject and object belong to the same person or noun class, various word orders are possible when context allows. Bearth (2003) observes that in many Bantu languages (like Makua [P.31]), word order is completely unrestricted by syntax in simple sentences, and is governed instead by information structuring principles:

> The conclusion would be, at least for Makua, that (i) given appropriate discourse conditions, any order of constituents is possible, (ii) this freedom of order is merely constrained by discourse pragmatic conditions and not by syntax and (iii)

claims according to which grammatical agreement is the major factor licensing word order variation need to be carefully double-checked against a large body of textual evidence for various language. (Bearth 2003:129-130)

In Totela, while SVO seems to be the "default" word order, as in many Bantu languages, all orderings of subject-verb-object except for those that are verb-final, are possible, as shown in (81a)-(81d). When the verb is final, an object marker is preferred. When the object precedes the subject in such constructions (OSV), the object acts like a topic, separated by comma intonation (pause and final rising tone). When the subject precedes the object (SOV), both act like topics. It is likely for this reason that the resumptive object pronoun occurs in such cases (81e)-(81f).

(81)   a. *Jacky àlàtòbèlá àbàchèchè*   **SVO**

       Jacky a-la-tobel-a   abacheche
       Jacky 3SG-NONCMPL-seek-FV CL2.child

       'Jacky is looking for the children'[26]

    b. *àlàtòbèlà Jacky àbàchèchè*   **VSO**

       a-la-tobel-a   Jacky abacheche
       3SG-NONCMPL-seek-FV Jacky CL2.CHILD

       'Jacky is looking for the children'

    c. *àlàtòbèlà àbàchèchè Jacky*   **VOS**

       a-la-tobel-a   abacheche Jacky
       3SG-NONCMPL-seek-FV CL2.child Jacky

       'Jacky is looking for the children'

    d. *àbàchèchè àlàtòbèlà Jacky*   **OVS**

       abacheche   a-la-tobel-a   Jacky
       CL2.children 3SG-NONCMPL-seek-FV Jacky

       'Jacky is looking for the child' (ZT2009Elic142-143)

    e. *àbàchèchè, Jacky àlábàtòbèlà*   **OSV, with OM**

       abacheche, Jacky a-la-ba-tobel-a
       CL2.child, Jacky 3SG-NONCMPL-CL2-seek-FV

       'The children, Jacky is looking for them'

    f. *Jacky, àbàchèchè, àlábàtòbèlà*   **SOV, with OM**

       Jacky, abacheche, a-la-ba-tobel-a
       Jacky, CL2.child   3SG-NONCMPL-CL2-seek-FV

       'As for Jacky, as for the children, he is looking for them'

---

[26]These translations are somewhat artificial; *-la-* is more often used in this context as a marker of near future.

Although all non-verb-final orderings are possible, when the verb comes first and the subject and object are not disambiguated by agreement marking on the verb, the default interpretation is VSO. However, both VSO and VOS readings can be obtained. This is illustrated in (82). The same applies for SVO / OVS – both are possible, but SVO is the default interpretation outside of context. Word order, which like tense and aspect marking is an information structuring device, does not appear to interact significantly with tense and aspect marking in Totela. For example, word order was not found to be significantly predictive of tense/aspect inflection in narrative (see 7.6.1).

(82) *àtòbèlá Jacky Lenya*

   a-tobel-a   Jacky Lenya
   3SG-seek-FV Jacky Lenya

   default interpretation: 'Jacky is looking for Lenya'
   also possible: 'Lenya is looking for Jacky' (ZT2009Elic143)

As is typical for Bantu, both the subject and the object can be dropped, provided the subject and object are marked on the verb (83).

(83) *àlábàtòbèlà*

   à-lá-bà-tòbèl̀-a
   3SG-NONCMPL-3PL-seek-FV

   'he's looking for them'

In fact, as will be evident in the excerpts from narratives, no object marking whatsoever is required within context, although subject marking is obligatory with inflected verbs.

The most extreme case of lack of participant marking is narrative morphology, derived from infinitive marking. With narrative morphology, as in (84), neither subject nor object must be marked (subjects cannot be marked; object-marking is optional).

(84) *<u>Kú</u>kwààtà <u>kù</u>nènsà <u>kù</u>nènsà.*

   <u>ku</u>-kwaat-a   <u>ku</u>-nens-a   <u>ku</u>-nens-a
   <u>NARR</u>-grab-FV <u>NARR</u>-beat-FV <u>NARR</u>-beat-FV

   '[then she] caught [him and] beat [him and] beat [him]' (ZT2009NarrA15.VB.41, *Kañandu*)

The ordering of direct and indirect objects is similarly flexible, although the default ordering is IO-DO; this is typically the only possible reading when both DO and IO are equal in animacy (85c).

(85) a. *ndápà bàmáámà íntàlàbàndà*   **(S)-V-IO-DO**
       nda-p-a   ba-maama   intalabanda
       1SG.CMPL-give-FV CL2A-my.mother CL9.greens
       'I gave my mother cooked greens'

b. *ndápà íntàlàbàndá bàmáámà*   **(S)-V-DO-IO**

nda-p-a   intalabanda ba-maama
1SG.CMPL-give-FV   CL9.greens   CL2A-my.mother

'I gave my mother cooked greens' (ZT2009Elic113)'

c. *mùpé òmwánàkázì òmú�îkwáámè*   **(S)-V-IO-DO**

mu-p-e   omwanakazi omukwaame
2PL-give-FV.SBJV CL1.woman CL1.man

'give the woman the man' (interpretation not accepted: 'give the man the woman') (ZT2009Elic83)

Adverbials can typically occur at any point in the clause, as illustrated by the bracketed {today}'s in (86).

(86) {*sùnù*} *ndálèètèlá* {*sùnù*} *bàtáátà* {*sùnù*} *òbúùchì* {*sùnù*}

{sunu} nda-leet-el-a   {sunu} ba-taata   {sunu} obuuchi
{today} 1SG.CMPL-bring-APPL-FV {today} CL2A-my.father {today} CL14.honey
{sunu}
{today}

'I brought my father honey today' (ZT2009Elic86.AM)

2.3.2.2   Relative clauses

Relative clauses occur commonly and may take all known tenses and aspects in Totela. In the affirmative, there is a special relative clause tone. In the affirmative present, the (active) *-la-* and (stative) *-li-* markers are not present in the TA slot (87). Negated relative clauses do not have special morphology or tone. Relative clauses may occur with or without a demonstrative form that agrees with the relative head (88).

(87) *ndìlíbwèné àbàntù* **bàfúmìtè**

ndi-li-bwene   abantu   **ba-fum-ite**
1SG-PRES.STAT-see.STAT CL2.person CL2-be.rich-STAT.RC

'I see people who are rich / rich people' (ZT2009Elic28)

(88) *ndìsàká òkúñòlà àmàkàndé (àlyá)* **mwàkàwâmbà**

ndi-sak-a   oku-ñol-a   amakande (**alya**)   **mwa-ka-wamb-a**
1SG-want-FV INF-write-FV CL6.story (CL6.DEM) 2PL.PST-PREHOD.PFV-speak-FV

'I want to write down the story **(that) you told** (yesterday or before)' (ZT2009-Elic32.VB)

Examples (89) and (90) show subject and object relative clauses, respectively, occurring in subject position.

(89) *abanakazi (aba) bena nabacheche balina nentonolo*

abanakazi **(aba)** **ba-ina** **na=bacheche** ba-li-ina
CL2.woman (CL2.DEM) CL2-have COM=CL2.child CL2-PRES.STAT-have
na=intonolo
COM=CL9.good.luck

'women **who have children** are lucky'

(90) *iñombe (eyi) ndinakama yandilaha*

iñombe **(eyi)** **ndi-na-kam-a** ya-ndi-lah-a
CL9.cow (CL9.DEM) 1SG-HOD.IPFV-milk-FV CL9-1SG-kick-FV

'the cow **(that) I was milking** kicked me' (ZT2007Elic96)

The tone patterns in subject and object relative clauses are identical.

Clauses following focus clefts (including question words) also take relative clause morphology and tone, as shown in (91) and (92) for statements and (93) for questions. Not all questions take cleft-relative form; question words may also appear in-situ in main clauses.

(91) *mbàbánìchè **àtòbélà** Jacky*

mba-baniche **a-tobel-a** Jacky
CL2.COP-CL2.children 3SG-seek-FV.RC Jacky

'it's the children **who are looking for Jacky**' (ZT2009Elic142)

(92) *ndímè **ndàwâmbà***

ndi-ime **nda-wamb-a**
COP-1SG 1SG.PST-speak-FV

'It's me **who spoke**'

(93) *chìnzí **mùsákà?***

chinzi **mu-sak-a**
CL7.what 2PL-want-FV

'what **do you want**?' [lit: it is what (that) you want?] (ZT2009Elic63.VB)

2.4 Totela varieties: Namibian Totela and Zambian Totela

Although local Totela varieties may differ even within Namibia and Zambia, the differences between Namibian Totela (NT) and Zambian Totela (ZT) are more significant and more

general. This section gives a brief overview of differences in phonology (2.4.1) and in TAM morphology (2.4.2).

Despite the differences discussed in this section, the two varieties remain more or less mutually intelligible, and several of their important similarities, such as the use of the *-ite* morpheme, are explored in later chapters.

2.4.1   NT and ZT: phonological differences

Major synchronic ZT-NT sound correspondences are summarized in table 2.27, with differences shaded. Other differences exist for particular vocabulary items, but are not generalizable.

ZT	NT
p, ∅	h
b	b
t	t
k	k
m	m
n	n
ŋ	ŋ
ɲ	ɲ
β	β
f	f
s	s
z	z
ʃ	ʃ
h	v
tʃ	tʃ, ʤ
ʤ	h
l	l
w	w
y	y, z
ŋg	ŋg, nʤ

Table 2.27: ZT-NT synchronic sound correspondences

As expected, innovations from the PB sound system are consistent between Zambian and Namibian varieties, with a few later sound changes distinguishing the varieties from each other. Table 2.28 shows basic correspondences. PB examples are written in IPA, while Totela examples are given in the practical orthography. Unfortunately, reliable tone data for Namibian Totela are not available, but the process of H-tone anticipation (HTA) is not immediately apparent in NT as it is in ZT. NT data come from my field notes from 2006 and 2007, and from notes graciously provided by Kathryn de Luna based on her work in the

Sounds			Examples			
PB	**ZT**	**NT**	**PB**	**ZT**	**NT**	**Gloss**
*p	∅	h	*-kúpà	èchífùwà	chifuha	'bone'
*p	p	h	*-pá	òkúpà	kuha	'(to) give'
*pi	si	si	*-pìk	òkùsìkà	kusika	'(to) arrive'
*pu	fu	fu	*-cèpú	nséfù	unsefu	'eland'
*t	t	t	*-ɲátì	ínyàtì	unyati	'buffalo'
*ti	si	si	*-tíg	òkúsìyà	kusiya	'(to) leave'
*tu	su/fu	su/fu	*-tʉ́mʉ̀	òmúsùmù	isumu	'spear'
*c	s	s	*-cèk	òkùsèkà	kuseka	'(to) laugh'
*k	k	k	*-kʉ́mì	íkùmì	-kumi	'ten'
*ki	si	si	*-kíŋgó	ínsìngò	insingo	'neck'
*ku	fu	fu	*-kútà	àmáfùtà	mafuta	'fat, oil'
*-kɪ, ke	ʧ	ʧ	*-kídà	òmúchìlà	muchila	'tail'
*b	β	β	*-bʉ́bì	íbùbì	ibubi	'spider'
*bi	zi	zi	*-bímbà	òkúzìmbà	kuzimba	'(to) swell'
*bu	hu	vu (βu)	*-búÌ	ínhwì	imvwi	'white hair'
*d	l	l	*-dímì	òlúlìmì	lulimi	'tongue'
*di	zi	zi	*-kádí	òmúkàzì	mukazi	'woman, wife'
*du	zu	zu	*-dèdù	òmùlèzù	mulezu	'beard'
*j	∅	∅	*-jédì	òmwéèzì	mwezi	'mirror'
*j	y	z	*-jímb	òkúyìmbà	kuzimba	'(to) sing'
*j	z	z	*-jògù	ìnzòhù	unzovu	'elephant'
*g	∅	∅	*-gʉ̀	òkùwà	kuwa	'to fall'
*gi	zi	zi	*-ŋgì	òmùnzì	muzi	'village'
*gu	hu	vu	*-jògù	ìnzòhù	unzovu	'elephant'
*m	m	m	*-bùmò	ìhùmò	ivumo	'stomach'
*n	n	n	*nà	nà	na	'and'
*-ɲ	ɲ	ɲ	*-ɲàmà	ìnyàmà	nyama	'meat'

Table 2.28: PB-ZT-NT sound correspondences

Caprivi in 2006-2007. For a more thorough discussion of PB-ZT sound correspondences, see 2.2.6 above.

The status of [v] in NT is somewhat uncertain; at least some speakers appear to have merged (or nearly merged) it with [β]. All prenasalized consonants not noted in the table are the same across Totela varieties.

Unfortunately, not enough is known yet about the tonal system of NT to make strong claims; however, NT does not seem to have the anticipatory tone system evidenced in ZT. Contrastive vowel length is found in Subiya and likely in NT; it is not especially salient in most cases in either NT or ZT, aside from what is discussed in 2.2.4.1 and 2.2.5.

Table 2.28 implies that vocalic pre-prefixal "augments" are present in ZT and absent in NT. In fact, the situation is far more nuanced. In both languages, the augment is absent in citation form and in vocatives. It is present in nearly all other contexts in ZT, but in NT generally only appears in positive semantic contexts when "entrapped" in prosodic units, e.g. after proclitics and certain prefixes, or on an object following a verb (or another word) in the affirmative.[27],[28]

(94)   a. After associative *na=* 'and, with'
      *n**e**chizuni*
      n=**e**-chizuni
      COM=AUG-CL7.bird
      'and/with a/the bird'

   b. After *za-* 'about'
      *z**o**muzi*
      za-**u**-muzi
      CL10-AUG-CL3.village
      'about a/the village'

   c. After connectives (i.e. genitive prefixes)
      *muzi w**o**mwanakazi*
      muzi   wa-**o**-mwanakazi
      CL3.village CL3.GEN-AUG-CL1.woman
      'the village of the woman'

(95)   In affirmative contexts
   a. After affirmative verb
      *ndin'**o**muzilili*
      ndi-ina   **u**-muzilili
      1SG-have AUG-CL3.fresh.milk
      'I have fresh milk'

   b. In other affirmative contexts
      *ndisaka ahulu **i**zizuni*
      ndi-sak-a   ahulu **i**-zizuni
      1SG-like-FV a.lot AUG-CL8.bird
      'I like birds very much'

In NT, augment use is variable, suggesting that it may be on the pathway to complete

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[27]In examples (94) and (95), the augment is glossed as a separate morpheme prior to the noun prefix. In the rest of the study, where awareness of the augment's presence is not essential to the issue at hand, it will not be glossed separately from the prefix.

[28]The augment may also occur with verbal negation if the noun does not immediately follow the negated verb. See Crane (2007) for further details.

disappearance. In most cases, vowels in NT and ZT correspond to one another, but this is not the case with the augment. In NT, the augment copies the prefix vowel, while in ZT, the augment is lower. The ZT forms may be reinterpretations conditioned by vowel coalescence between words, as seen in (24) above. Augment forms in NT, ZT, and some of their neighbors and relations are summarized in table 2.29. Crane (2007) has more information on augments in NT and ZT.

NC	1a	1	3	11	13	14	15	4	7	8	5	9	10	2	6	12
Pref.	∅	*mu-*	*mu-*	*lu-*	*tu-*	*bu-*	*ku-*	*mi-*	*chi-*	*zi-*	*i(li)-*	*N-*	*N-*	*ba-*	*ma-*	*ka-*
NT	∅/*u-*			*u-*					*i-*		*i-*	*i-*			*a-*	
ZT	∅			*o-*					*e-*		*i-*	*i-*			*a-*	
Sub	∅			∅					∅		*i-*	*i-*			∅	
Fwe	∅			*o-*					*e-*		*e-*	*e-*			*a-*	
Ila	∅/*u-*			∅					∅			*i-*			∅	
Ton	∅			*i-*					*i-*		*i-*	*i-*			*i-*	

(Sources: NT: field notes; ZT field notes; Subiya: field notes, Seidel 2005; Fwe: field notes, Seidel 2005; Ila: Smith 1964; Fowler 2000; Tonga: Collins 1962; Carter 1963)

Table 2.29: Augment forms

2.4.2 NT and ZT: differences in TAM morphology

While Zambian and Namibian Totela varieties are mutually intelligible, years of separation and the influence of contact languages have resulted in TAM morphologies that differ in significant respects, often using the same markers to quite different purposes. (For more information on the background and possible genetic classification of ZT and NT, see 2.1.1 above and de Luna (2010).) A few major differences are noted here. As noted, many of the morpheme shapes are the same, but they are used in different positions and with different functions. This section deals exclusively with segmental differences, because analysis of NT tone is still incomplete. As noted in 1.1, this study analyzes the Zambian Totela tense and aspect system, although data from Namibian Totela are used for comparative purposes, and in cases where the markers are known to function in very similar ways, as is the case with -*ite*, treated in chapter 6.

2.4.2.1 Temporal distance distinctions

Table 2.30 compares major ZT and NT tense/aspect forms, labeled according to major functions.[29] Differences between the varieties are bolded.

	NT	ZT	Gloss
Prehod **Pfv/Cmpl**	**na**-SM-a-root-a *na-nda-yend-a*	SM-a-**ka**-root-a *nda-ka-yend-a*	'I walked'
Hod **Pfv/Cmpl**	SM-a-root-a *nda-yend-a*	SM-a-root-a *nda-yend-a*	'I walked'
Prehod **Ipfv**	ka-SM-root-a *ka-ndi-yend-a*	ka-SM-root-a *ka-ndi-yend-a*	'I was walking'
Hod **Pst/Ipfv**	SM-**la**-root-**i** *ndi-la-yend-i*	SM-**na**-root-**a** *ndi-na-yend-a*	'I was walking'
Pres	SM-**la**-root-a *ndi-la-yend-a*	SM-root-<u>a</u> *ndi-yend-a*	'I am walking/I walk'
Hod **Fut**	**mo/mu**-SM-root-**e** *mo-ndi-yend-e*	SM-**la**-root-**a** (pres. form) *ndi-la-yend-a*	'I'll walk'
Posthod **Fut**	**ka**-SM-root-**e** *ka-ndi-yend-e*	**na**-SM-**la**-root-**a** *na-ndi-la-yend-a*	'I'll walk'

Table 2.30: Temporal distance distinctions: past (PFV and IPFV) and future

Both NT and ZT morphologically distinguish hodiernal times from pre- and posthodiernal times, but the morphological marking used to do so differs. Furthermore, NT has slightly more morphological expressions for temporal contrasts. ZT uses present -*la*- for the hodiernal future, while NT has a special form. Additionally, NT futures end in the subjunctive FV -*e*.

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[29]The labels do not constitute an analysis of the forms in question. For example, forms with the -*la*- marker in ZT, here listed under "present", are analyzed in chapter 4 as non-completive.

It should also be noted that NT forms are particularly variable. Younger speakers, especially, tend to use *ni-* instead of *na-* with prehodiernal past, and the *mo-*/*mu-* prefix of hodiernal future may have a prenasalized stop, taking the form *mbo-*.

As is seen in table 2.30, the differences between ZT and NT TAM-marking systems are significant.

2.4.2.2 Present/non-past marking: *-la-* and *-li-*

A striking difference between ZT and NT is that ZT marks the present (non-completive) in main clauses with *-la-*, while NT uses just the subject marker followed by a stem and the final vowel. Similarly, with *-ite* (see chapter 6), ZT has *-li-*, and NT has no marker. (For further discussion of *-la-*, including its uses and possible historical development, see 4. *-la-* as a present/non-past or disjunctive marker is quite rare across Bantu, but is found languages including some M40-50-60 languages in Zambia, for example, Tonga and Bemba (Nurse 2008:206).

(96)   a.   ndi-**la**-yend-a
            1SG-NONCMPL-walk-fv

            'I walk' (ZT)

       b.   ndi-∅-yend-a
            1SG-∅-walk-FV

            'I walk' (NT)

(97)   a.   ndi-**li**-zimb-ite
            1SG-PRES.STAT-swell.up-STAT

            'I am swollen' (ZT)

       b.   ndi-∅-zimb-ite
            1SG-∅-swell.up-STAT

            'I am swollen' (NT)

2.4.2.3 Final vowels

Table 2.30 shows that ZT and NT vary not just in TA marking, but also in final vowel (FV) use. Both NT and ZT have three possible final vowels: *-e*, *-i*, and *-a*. Both use final *-a* in most indicative contexts, and final *-e* in most subjunctive contexts. Final *-i* is used with some roots in the negative in ZT, and with all roots in the present negative in NT. (See 2.3.1.6 above for more on the final vowel in ZT.) Table 2.31 summarizes the major FV uses in the two varieties.

The final vowel is *-i* for all present negatives, in addition to some other negated (and non-negated) tenses and aspects in most, if not all, of the other Bantu Botatwe languages, including Ila (M.63) and Tonga (M.64) in Zambia; and Subiya (K.42), Fwe (K.402), and Mbalangwe/Linyanti (K.401) in Namibia.

FV	NT	ZT
-*a*	indicative	indicative
		most negative
-*e*	subjunctive	subjunctive
	future (*aff. and neg.*)	
-*i*	present negative	negative mono-syllabic roots
	(*all roots*)	plus -*suwa* 'hear' and
		-*saka* 'want' (*all tenses*
	hodiernal imperfective	*when negated with* ta-)
		past -*na*-

Table 2.31: Major final vowel uses in NT and ZT

2.4.2.4   Negation

Another major area of difference between ZT and NT is negation morphology. The most common main clause negation patterns are summarized in table 2.32.

	NT	ZT	Gloss
Prehod	**kana**-**na**-SM-**a**-root-a	**ta**-SM-∅-**na**-**ka**-root-a(/i/e)	
Pfv/Cmpl	*kana*-*na*-*nda*-yend-a	*ta*-ndi-∅-*na*-*ka*-yend-a	'I didn't walk'
Hod	**kana**-SM-**a**-root-a	**ta**-SM-∅-**na**-root-a(/i/e)	
Pfv/Cmpl	*kana*-*nda*-yend-a	*ta*-ndi-∅-*na*-yend-a	'I didn't walk'
Prehod	**kana**-ka-SM-root-a	**ta**-ka-SM-root-a	
Ipfv	*kana*-ka-ndi-yend-a	*ta*-ka-ndi-yend-a	'I was walking'
Present	**ka**-SM-root-**i**	**ta**-SM-root-**a**(/i/e)	
	ka-ndi-yend-*i*	*ta*-ndi-yend-*a*	'I don't walk'
Hod	**kase**-SM-root-**e**	**ta**-SM-root-**a**/(i/e)	
Fut	*kase*-ndi-yend-*e*	*ta*-ndi-yend-*a*	'I won't walk'
Posthod	**kase**-**na**-SM-root-**e**	**ta-li** **na**-SM-**la**-root-**a**	
Fut	*kase*-*na*-ndi-yend-*e*	*ta-li* *na*-ndi-yend-*a*	'I won't walk'

Table 2.32: Temporal distance distinctions: past (PFV and IPFV) and future

NT present negative prefix *ka*- is a very common negative marker across Bantu; *ta*- is less common, but attested (Nurse 2008:181). *kana*- is transparently related to the root *-*kaan* 'refuse' (-*kaana* in NT).

2.4.2.5   Subject marking in narrative forms

Both Namibian and Zambian Totela have special narrative forms based on augmentless infinitives (where augments surface in ZT when preceded by comitative *na*=). However, in

ZT, the bare infinitive is used, while in NT, the form is SM-INF-root-FV.

(98)   a.   ...***baku***lyata halukungwe

      ...**ba-ku**-lyat-a   ha-lukungwe

      ...3PL-INF-step.on-FV CL16(LOC)-CL11.snake

      '...then they stepped on a snake' (adapted from Dahl 1985:Q172) (NT2007)

    b.   ***kù***kàsìkàmó mùchìòlè

      ...ku-ka-sika-a-mo   mu-chiole

      ...INF-DIST-arrive-FV-CL18(LOC) CL18(LOC)-CL7.forest

      '...then they arrived in the forest' (ZT2009NarrA7.GS.16, *Fumako*).

For more on narrative forms and their uses within texts, see chapter 7.

2.5   Typological interest

Totela is of typological interest for a number of reasons, not least because it belongs to a highly underdescribed part of Bantu. Data from Totela and languages like it have much to add to studies in Bantu and historical linguistics, which in turn can contribute to historical and anthropological knowledge in general. Of particular interest anthropologically is the Totela knowledge and vocabulary of ironwork, for which they were renowned.[30]

Additionally, Totela is remarkable for its anticipatory tone system. Hyman (2007b:5; 18ff) notes that unlike perseverative (rightward) tone shifting or spreading, which is common and phonetically "natural", leftward tonal anticipation is typologically rare and "unnatural". Several languages related to Totela, such as Tonga, also have anticipatory tone spreading, but none seems as regular and pervasive as the system in Totela. Thus, the language provides an excellent case study of tonal interactions a fully grammaticalized system of anticipatory tone shift.

Zambian and Namibian Totela together provide an outstanding environment for comparative studies of language contact and language change. The two varieties have the same name and are geographically proximate, but, as seen above, are vastly different in their expression of TAM morphology, among other things. Studies of neighboring languages and the possible mutual influences will undoubtedly prove fruitful.

Most significant for this study, Totela has a complex and pragmatically rich Tense, Aspect, and Mood marking system. This study demonstrates that pragmatics and information structuring goals play a key role in the use of TAM markers in Totela. Totela narratives are both entertaining and a fruitful source of linguistic material; they are ideal for analysis of discourse-structuring uses of TAM.

In general, Bantu TAM systems have been grossly understudied, and the number of text-based studies is even fewer. Since Bantu languages have some of the most complex and elaborate tense and aspect marking systems in the world, it seems natural that they should

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[30]See de Luna (2008:259); Brelsford (1965:14).

be studied to evaluate claims about extra-temporal TAM use from a broader cross-linguistic perspective. In addition, comparison of Totela's TAM markers and their functions with those reported for other languages of Zambia, such as Tonga (M.64) and Bemba (M.42) will provide further insights into the rapidly changing forms and functions of TAM in Bantu, which will aid in characterizing semantic and pragmatic patterns of grammaticalization across languages.

Chapter 3

Semantics and Pragmatics of Completion

3.1 Introduction

At first glance, Totela seems to have two general past markers in the perfective aspect; a present/hodiernal future; and a posthodiernal future, as shown in table 3.1.

Form	(Apparent) Use	Example	
-ka-	Prehodiernal	ndà**kà**nèngà	'I danced' (yesterday or before)
-a-	Hodiernal	nd**a̱**nèngà	'I danced' (today)
-la-	Present/Hod. Fut.	ndì**là**nèngà	'I am dancing/will dance' (today)
na-	Posthodiernal	**ná**ndìlànèngà	'I will dance' (tomorrow or after)

Table 3.1: Forms that appear to mark tense in Totela

A few things may be noted about these forms. First, it can be observed that the "prehodiernal perfective" and the "posthodiernal future" forms *-ka-* and *na-* co-occur with the "hodiernal perfective" and "present / hodiernal future" forms *-a-* and *-la-*, respectively.[1] This co-occurrence is a clue that the forms, while having something in common, are not competing values for a single function. The relevant morphemes are highlighted in (99).

(99) Co-occurence of TAM markers
      Hodiernal nd**a̱**-nèng-à   →   **Pre-hodiernal** nd**a̱**-**kà**-nèng-à
      Hodiernal ndì-**là**-nèng-à   →   **Post-hodiernal** **ná**-ndì-**là**-nèng-à

A second important observation – not evident from (99) and table 3.1 – is that there is some functional overlap of the forms. While *-a-*-marking (without *-ka-*) is usually restricted to hodiernal situations, it may also refer, in some cases, to situations at least partially located

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[1]Note that *na-* may also occur without *-la-*; for more on this, see chapter 5. Prehodiernal *-ka-* always co-occurs with *-a-* when it appears in that position.

in the prehodiernal past. Similarly, -*la*-marked forms may refer to the posthodiernal future. On the other hand, the time frames referred to by -*ka*- and *na*- are more fixed: the situations they refer to cannot be located in the hodiernal domain.

Thirdly, the "hodiernal" forms -*a*- and -*la*- both exhibit striking temporal variation. With durative verbs, -*a*- generally evokes a past-tense reading, as with 'danced' in (99) above and 'walked' in (100a) below. However, with change-of-state verbs, -*a*- can have either a present stative or a past reading (100b). Conversely, Totela -*la*- has possible readings of habitual, progressive (or stative), and future with most predicates (101a), as in although it typically cannot have a present stative reading with change-of-state verbs (101b).

(100)

	DURATIVE		CHANGE-OF-STATE
a.	ndá-yènd-à	b.	ndá-kòmòk-w-à
	1SG.CMPL-walk-FV		1SG.CMPL-surprise-PASS-FV
	'I walked'		*Possibility 1: 'I am surprised'*
			Possibility 2: 'I got surprised'
			(earlier today)

(101)

a.	ndì-là-yènd-à	b.	ndì-lá-kòmòk-w-à
	1SG-NONCMPL-walk-FV		1SG-NONCMPL-surprise-PASS-FV
	Possibility 1: 'I am walking'		*'I will be surprised'*
	Possibility 2: 'I will walk'		
	Possibility 3: 'I walk' (regularly)		

Because of their shared temporal flexibility, and the complementary distribution of temporal interpretations shown in (100) and (101), the analyses of -*a*- and -*la*- (as well as the -Ø- present) are treated in two consecutive chapters (-*a*- in this chapter; -*la*- in chapter 4). -*ka*- and *na*-, which I argue serve to "dissociate" from the cognitive domain of perspective time (following Botne & Kershner 2008), are discussed in chapter 5. In the current chapter and the one that follows, I argue that -*a*- and -*la*- both refer to the notion of "completion" with respect to perspective time. -*a*- marks a situation as complete, while -*la*- (and -Ø-) indicate non-completion. The interpretation of "completion" is closely tied to verbal event structure and situation type; a situation's completion, it will be shown, occurs when the verbal *nucleus* is past with respect to perspective time. While these markers have some similarity to "tense" in the Kleinian sense (Klein 1994), in that they refer to perspective time (usually the same as utterance time), they also have functions traditionally associated with "aspect": they refer crucially to the "internal temporal structure" of the situation in question. I will argue that the temporal specifications of both -*a*- and -*la*- are weak; they merely indicate that perspective time is located either before (with -*la*-) or after (with -*a*-) completion time in the current discourse domain, and the remaining burden of interpretation

is laid on pragmatics. In chapter 5, I argue that *-ka-* and *na-*, in contrast, are "tense" in the sense of Botne & Kershner (2008): they shift from the temporal domain of the utterance perspective, to a temporally dissociated domain.

A revised, and, I argue, more explanatory and unified view of the functions of Totela's apparent "tense" markers, then, is as in table 3.2. Arguments for this view are given in this chapter (for *-a-*) and the two that follow (for *-la-* and the dissociative markers, respectively).

Form	Proposed Function	Example	
-ka-	Dissociative (Past)	ndà**kà**nèngà	'I danced' (yesterday or before)
-a-	Completive	nd**à**nèngà	'I danced' (today)
-la-	Non-completive	ndì**là**nèngà	'I am dancing/will dance' (today)
na-	Dissociative (Future)	**ná**ndìlànèngà	'I will dance' (tomorrow or after)

Table 3.2: Proposed system of completion and dissociation in Totela

The tree in figure 3.1 shows a possible schematization of completion and dissociation distinctions in Totela, where forms are either marked for completion or not; they are also marked for dissociation, or they are neutral with respect to dissociation, producing the four possible readings.[2]
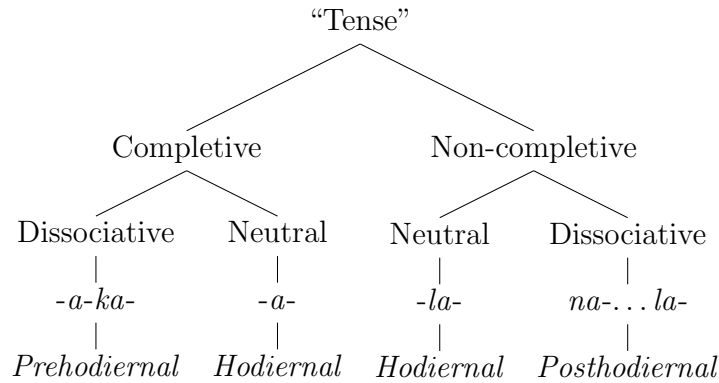
Figure 3.1: Completion and dissociation parameters in Totela

This chapter deals with the distribution and interpretations of completive *-a-*. Section 3.2 presents an analysis of *-a-* as a completive marker, first describing its form (§3.2.1), then showing that its varying temporal interpretations fall into place under a completion-based analysis (§3.2.2) – but not typical anterior or perfective analyses (§3.2.3) – and that it

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[2]This tree does not represent an exhaustive hierarchy of tense relations in Totela; for example, imperfective past readings are obtained with verbs not marked for completion. The example is merely intended to assist in conceptualizing the relationships of the markers discussed in chapters 3-5.

maintains the current discourse domain (§3.2.4). Completion semantics are closely linked to discourse structuring, because of the importance of perspective time in the interpretation; narrative uses confirm this link. Section 3.3 gives narrative-based evidence for the role of completion in Totela's tense/aspect system. Section 3.4 gives a brief discussion of the complexities of -*a*- across Bantu and its uses in Tonga and Ila, two near relatives of Totela in Zambia. A conclusion is given in section 3.5.

3.2 -*a*- in Totela: a completive, non-domain changing marker

3.2.1 Morphosyntax

The Totela -*a*- marker attaches to the subject marker prior to other TAM markers in the post-SM slot. It appears only in affirmative forms. The final vowel is -*a*. Example (102) shows -*a*- as it appears with the 1sg subject marker *ndi*-. Note that the vowel coalescence with -*a*- does not seem to result in noticeable lengthening.

(102) *ndàyèndà*

   ndi-a-yend-a
   1SG-CMPL-walk-FV

   'I walked (today)'

The subject marker and the completive -*a*- marker are separated for clarity in this example. In the rest of this study, -*a*- forms are glossed as in (103), without a morpheme break:

(103) *ndàyèndà*

   nda-yend-a
   1SG.CMPL-walk-FV

   'I walked (today)'

   The SM series for -*a*-marked forms are given in tables 3.3 and 3.4 for persons and noun classes, respectively. SM forms ending in *a* do not change in the past tense. SM *u* endings glide to *w* to form C*wa*- sequences. Final *i* also glides to *y* except with 1SG and classes 7, 8, and 10, where SM-final *i* is replaced entirely by -*a*-.
   The *a*- marker surfaces as H when followed by a H-toned verb stem. This can be seen in the contrast between (104a) with a toneless root -*wamba* 'speak', and (104b) with H-toned root -*bona* 'see'.

(104) a. **ndà**-wàmb-à
       1SG.CMPL-speak-FV
       'I spoke (today)'

	Singular		Plural	
	Bare	**Cmpl**	**Bare**	**Cmpl**
1	ndi-	nda-	tu-	twa-
2	u-	wa-	mu-	mwa-
3	a-	a-	ba-	ba-

Table 3.3: Totela person subject markers: bare and completive

b. **ndá̱**-bòn-à
1SG.<u>CMPL</u>-see(H)-FV
'I saw (today)'

The negation of an -*a*- form does not include -*a*-, but consists of pre-SM negator *ta*- and the marker -*na*-[3] following the bare SM, along with a special tone pattern (see appendix C).

(105) a. **tà-ndì-nà**-wâmb-à
NEG-1SG-PST-speak-FV
'I didn't speak'

b. **tà-ndì-ná**-bòn-à
NEG-1SG-PST-see-FV
'I didn't see'

3.2.2 Completive semantics of -*a*-

As noted in the introduction, the -*a*- marker's temporal interpretations are characterized by two salient points. First, the situation referred to must hold at some point during the day of perspective time (usually equivalent to the day of utterance). Second, the temporal interpretations of past situation or present state vary according to both context and situation type. The point of hodiernality is taken up again in section 3.2.4, where I argue that -*a*- and -*la*- without other TAM markers are located in the associative domain. In this section, I present in more detail -*a*-'s possible temporal interpretations and use them to argue for its completion semantics.

3.2.2.1   -*a*- with non-result-state verbs

Recall that the term "durative" verbs serves as an umbrella category for all verbs not specifically encoding entry into a state (change-of-state verbs). As such, the category includes both telic (e.g. -*yaaka iñanda* 'build a house'), and atelic (e.g. -*twa* 'pound') verbs. Smith's (1997) "semelfactives" (-*kamba* 'clap') also belong to this category. Unlike in some Bantu languages, there is also a distinct category of "true" statives, such as -*saka* 'want', which

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[3]This marker has no apparent synchronic relationship with posthodiernal dissociative prefix *na*-; see chapter 7. for basic details on the past prefix -*na*-.

NC	Bare	Cmpl
1/1a	a-	a-
2/2a	ba-	a-
3	u-	wa-
4	i-	ya-
5	li-	lya-
6	a-	a-
7	chi-	cha-
8	zi-	za-
9	i-	ya-
10	zi-	za-
11	lu-	lwa-
12	ka-	ka-
13	tu-	twa-
14	bu-	bwa-
15	ku-	bwa-
16	a-	a-
17	ku-	kwa-
18	mu-	mwa-

Table 3.4: Totela noun class subject markers: bare and completive

also tend to pattern with the durative category rather than the change-of-state category in many cases. Perception statives like -*bona* 'see' and -*suwa* 'hear, feel' also often pattern with the durative category, although they have some added variability and are therefore discussed separately in 3.2.2.4.

When used with durative verbs, -*a*- generally refers to a completed action or situation, as in the following sentence used to describe a stimulus action during elicitation. When speakers were presented with drawings of people and objects in particular locations, these usually elicited -*ite* responses (see chapter 6), while descriptions of live action tended to elicit the -*a*- marker, as in (106), given after I jumped into a circle drawn in the sand.

(106)   *mwásòtòkèlá mùchífùndà*

mw<u>a</u>-sotok-el-a   mu-chifunda
2PL.<u>CMPL</u>-jump-APPL-FV CL18(LOC)-CL7.circle

'you jumped into the circle' (ZT2009Elic70)

The use of the -*a*- form to describe live actions, but not pictures of people and objects in locations, indicates that it is not referring to a resultant state, but to the action itself, completed at the time of utterance.[4]

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[4]This finding suggests that trends for use of different TAM marking for live actions vs. pictures should be noted and taken into account when conducting field elicitation with various kinds of prompts.

On its own (without prehodiernal -*ka*-), -*a*- occurs rarely with true statives such as -*saka* 'want, like' and -*pona* 'live'. When it does occur stative durative verbs, such as -*chiswa* 'be sick', a past interpretation is also generally associated with -*a*-. To say 'I am sick', speakers generally use the -*la*- form (discussed in chapter 4), rather than -*a*-. This contrast is shown in (107), where the -*a*- form describes a situation that held earlier in the day.

(107)   a. *ndàchìswà*

        nda-chis-w-a
        1SG.CMPL-hurt-PASS-FV

        'I was sick [this morning]' (situation completed) (ZT2009Elic34)

     b. *ndìlàchìswà*

        ndi-la-chis-w-a
        1SG-PRES-hurt-PASS-FV

        'I am sick'

The lack of frequent use of -*a*- with statives such as -*saka* may be related to the enduring (i.e. permanent or semi-permanent) character associated with such predicates. Location of their completion prior to perspective time is unexpected. However, it can occur, as in (108), which was accepted by a consultant.

(108) *ndasaka kono tandichisaka*

    nda-sak-a   kono ta-ndi-chi-sak-a
    1SG.CMPL-want-FV but   NEG-1SG-PERS-want-FV

    'I wanted [e.g. to do or have something] but I don't/won't want [to/it] anymore' (ZT2007Elic123)

In other cases, -*saka* with the -*a*- marker may have an active meaning such as 'seek' or 'look for' rather than stative 'want', in which case it behave as other non-stative duratives.

Based on its interactions with durative verbs alone, -*a*- might easily be analyzed as a simple (hodiernal) past/perfective form. All that can be said with respect to -*a*- is that the situation's completion is prior to perspective time. These semantics are illustrated in (109), using the event schemata introduced in 1.3.2. The perspective time (PT) is located after the verbal nucleus (N). O marks situation onset; C represents the coda. The P-domain represents the cognitive "world" – i.e. the here-and-now reality – associated with the perspective time.

(109)   a. Atelic durative:
        nda̱nenga
        nda̱-neng-a
        1sg.CMPL-dance-FV

        'I danced'
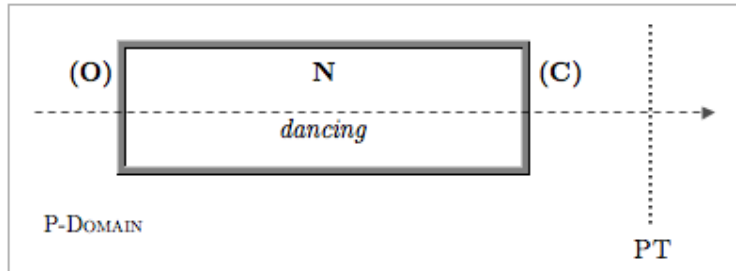
    b. Telic durative:
        nda̱yaaka iñanda
        nda̱-yaak-a   iñanda
        1sg.CMPL-build-FV house

        'I built a house'
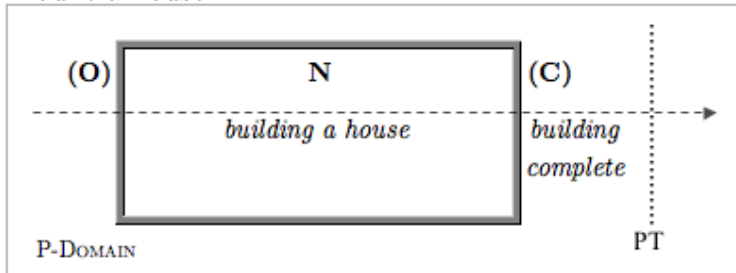
In the examples illustrated in (109a) and (109b), the intersection of perspective time and the timeline may appear at any point in the P-domain after the completion of the durative nucleus (and the beginning of a coda phase, if applicable), but not before.

Interactions of -*a*- change-of-state verbs still demand explanation, and I turn to these in the next section.

3.2.2.2   -*a*- with change-of-state verbs

Change-of-state verbs (also called "inchoatives") are a highly salient category of situation type in Totela and many other Bantu languages. They depict the entry into a state, such as -*fwa* 'die' or -*katala* 'get tired'. As shown in section 3.1, -*a*- may have either past or present readings with most change-of-state verbs.

With change-of-state verbs, -*a*- typically carries a present state implicature, as in (110).

(110) *ndákàtàlà*

       nda̱-katal-a
       1SG.CMPL-tire-FV

       'I'm tired' (i.e. I became tired, and now I am tired)

However, this implicature does not always hold, as shown in (111), which summarizes a personal narrative about going to the fields and being surprised to discover that cows had trampled some of the crops. In (111), -*a*- highlights the transition as a punctual occurrence in the past, but the result state does not necessarily still hold at perspective time.

(111) *nda̱komokwa sunu!*

       nda̱-komok-w-a   sunu!
       1SG.PST-surprise-PASS-FV today

       'I got surprised today!' (ZT2007Narr27.VK)

Thus, the implicature of a continued state is not inviolable, or part of -*a*-'s semantic contribution, although the state is sometimes assumed to hold because of real-world knowledge (e.g. *áfwà* 'he died'). The current state is particularly salient in idiomatic constructions such as *ndafwa inzala* 'I'm hungry', literally 'I('ve) died of hunger'.

What all of these interpretations have in common is that the change-of-state is prior to perspective time. Whether perspective time is located within the referenced state is not determined by -*a*-'s semantics, but by utterance context. Thus, both past state (or past entry into state) and present state interpretations are possible for a change-of-state verb with -*a*-, because change-of-state verbs have a coda state resulting from change culminating at the situation's nucleus. These two possible readings are illustrated for -*komokwa* 'become surprised (passive)' in (112). The curvy lines represent the subjective delineation of the nucleus (N), i.e. the point of state change with many change-of-state verbs.

(112)   a. Present reading:
          ndákòmòkwà
          nda̱-komok-w-a
          1sg.CMPL-surprise-PASS-FV
          'I am surprised!'
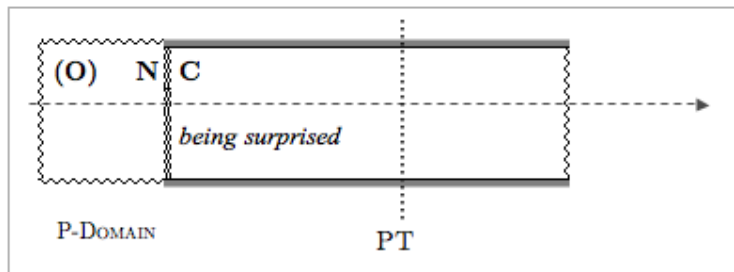
b. Past reading:

nd<u>á</u>kòmòkwà

nd<u>a</u>-komok-w-a

1sg.CMPL-surprise-PASS-FV

'I got surprised!'
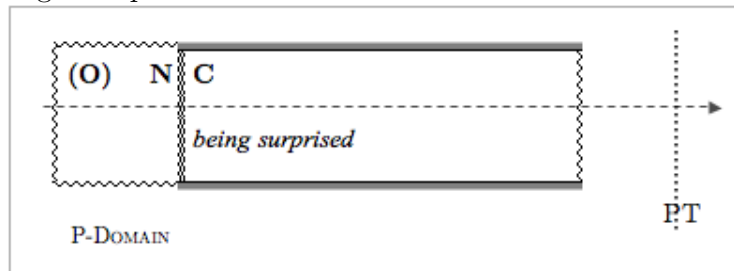
The two interpretative possibilities with change-of-state verbs show that *-a-* references the situation's *nucleus*, rather than another part of the event structure. With durative verbs, completion of the entire situation coincides with nuclear completion. Change-of-state verbs, however, reveal that when the nucleus and the situation are not co-extensive, *-a-* relates perspective time to the nucleus only.

Thus, *-a-*'s temporal semantics receive a unified explanation under an analysis of "completion", where completion refers to the situation's nucleus. *-a-* asserts that the situation's nuclear completion is prior to the contextually-determined perspective time. With durative verbs, this is equivalent to the cessation of the event or state referenced, while change-of-state verbs distinguish a nuclear point of transition from the cessation of a coda state. Whether perspective time is located in or after coda state is determined by context. Examination of other verbal subtypes supports this analysis, as shown in the following two sections. 3.2.2.3 discusses active verbs with resultant states, which behave similarly to change-of-state verbs with *-a-*. 3.2.2.4 examines perception statives, which can be used either like "true", durative statives, or like change-of-state verbs with *-a-*.

3.2.2.3   Verbs with resultant states

Other verbs, such as *-sika* 'arrive', *-saama* 'get dressed', and *-wa* 'fall', do not directly encode the entry into states, in contrast to the change-of-state verbs discussed above. Instead, they depict *actions* that may also *imply* resultant states. With these verbs, as with change-of-state verbs, the resultant state may or may not hold at perspective time. That is, at the time of utterance, a speaker uttering *nd<u>à</u>sàmà* 'I got dressed' may or not be wearing the same clothes donned in the situation referenced. Example (113) shows two possible readings with *nd<u>à</u>wà* 'I fell'. PT_1 is located within the coda state of being on the ground; PT_2 is located after the termination of that state.

(113) *nd̲à̲wà*

nd̲a-u-a
1SG-CMPL-fall-FV

'I fell' (ZT2007Elic123.VK)
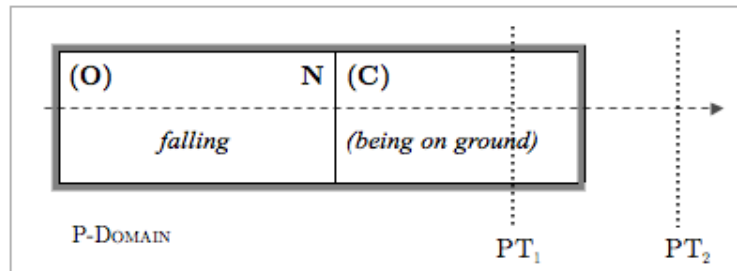
With change-of-state verbs, the default interpretation of verbs with *-a-* is of a present state. With the verbs discussed in this section, in contrast, there does not seem to be such a default. Also, the sense of activity required to bring about the result is stronger with these verbs. In both cases, though, a state resulting from an action or state change may or may not hold at perspective time.

3.2.2.4   Perception statives

Statives referring to perception, such as *-bona* 'see' and *-suwa* 'hear, feel', often have a special status in Totela, in that their situation type is particularly sensitive to context. With perception statives, as with other statives discussed in 3.2.2.1, *-a-* typically has a past tense reading. The state no longer needs to hold. For example, *ndá̲bònà* 'I saw' can be a true statement even if the speaker is currently blindfolded; in contrast, both *ndilibwene* (*-ite*) and *ndilabona* (present) are only true if the speaker currently has something in view.

However, it is possible for perception verbs to have an inchoative reading, as well, where the nucleus (coinciding with situation onset) terminates with entry into a state of perceiving, as in (114) and (115) with *-suwa* 'hear, feel, understand'. Example (114) is from a narrative about a typical day's work and activities, where *-suwa* appears in a generic statement describing a state resulting from staying up late around the fire. Here, the nucleus terminates with entry into the state, and the *-a-*marked verb situates perspective time in the coda state.

(114) *esi tw̲a̲tonda tw̲a̲suwa okukatala*

esi   tw̲a-tond-a   tw̲a-suw-a   oku-katal-a
COND 1PL.CMPL-stay.up-FV 1PL.CMPL-feel-FV NARR-tire-FV

'if we've stayed up late, we feel tired' (ZT2007Narr26.VK)

In (115), which describes the post-state of the entry into the state of feeling well, in contrast to the former sickness, the state is contextually salient, and, like in (114), the

perception stative *-suwa* behaves like an achievement verb, where completion refers to the punctual entry into the state.

(115)   *kandichiswa, nelo nda̱suwa bulotu*

      ka-ndi-chis-w-a   nelo nda̱-suw-a   bulotu
      IPFV-1SG-hurt-PASS-FV now 1SG-<u>CMPL</u>-feel-FV good

      'I was sick but now I feel well' (ZT2006Elic57)

    These possible readings are illustrated with *-bona* 'see' in (116). With the present reading (116b), an inchoative situation type (here, similar to a Vendlerian achievement) replaces the typical stative situation type seen in (116a). (116a) has an event structure like the durative situation in (109a), while (116b) is similar to the change-of-state verb in (112a).

(116)   Perception statives:
     a. **Past reading** (common): (*-bona* as stative 'see')
        ndábònà

        nda̱-bon-a
        1SG.<u>CMPL</u>-see-FV

        'I saw'
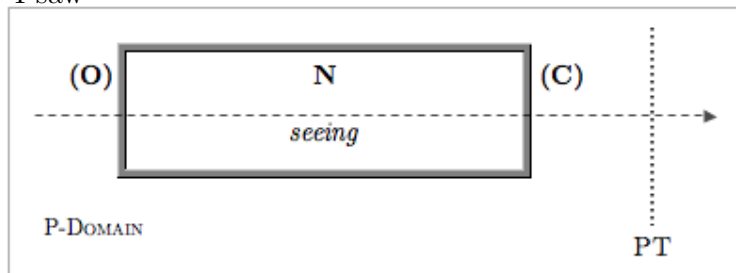
     b. **Present reading** (somewhat less common): *-bona* as inchoative 'begin to see', with punctual nucleus at the moment when the coda state of seeing begins
        ndábònà

        nda̱-bon-a
        1SG.<u>CMPL</u>-see-FV

        'I see'
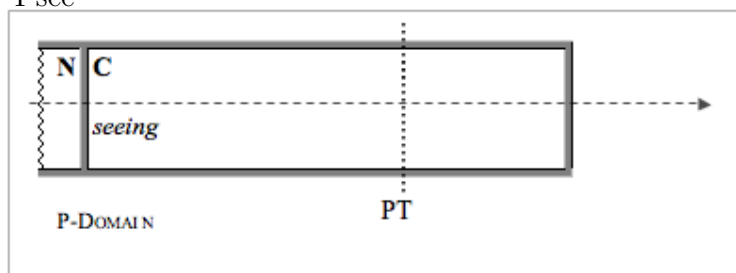
3.2.2.5 Summary and analysis of -*a*-'s interactions with situation type

Table 3.5 summarizes the possible temporal interpretations of completive -*a*- with various situation types.

Situation Type	Possible Interpretations
Durative	Past
Change-of-State	Past
	Present State
Perception Stative	Past
	Present State
Other Stative	Past

Table 3.5: Summary of temporal interpretations with completive -*a*-

In the case of change-of-state verbs, and other verbs implying resultant states, it can be seen that the -*a*- form references a time after the change into a resultant state has taken place. Whether the time referenced is located within the resultant state is not encoded in -*a*-, but rather is determined pragmatically. With change-of-state verbs, the implicature of continued resultant state is particularly salient. This implicature is easy to derive from general conversational principles of relevance. Use of a verb describing entry into a state, in general, is most relevant if the state holds at perspective time. For example, a verb like -*taba* 'become happy', requires no direct reference the situation resulting in happiness, although the context may provide such information. Thus, when uttering *ndataba* without much other context, a speaker is less likely to be referring to the rather ethereal process of obtaining happiness than to the ensuing happy state.[5] However, in examples such as (111) above, repeated here as (117), the situation resulting in the entered emotional state (here, a story of cows trampling cassava plants) is the main discourse topic, and the present-state implicature need not hold.

(117)   *ndakomokwa sunu!*

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

      'I got surprised today!' (ZT2007Narr27.VK)

With result-state predicates denoting activity, such as -*saama* 'get dressed', the implicature is somewhat less strong, because – as with the surprising event in (117) – the situation leading up to a resultant state, e.g. the process of dressing, has clear content that may be referred to.

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[5]Compare context-free 'I became happy' or even 'I was happy' with 'I am happy' for naturalness.

With activity verbs such as -*yenda* 'walk', and with "true" statives, there is no implicature of a resultant state that includes perspective time, since the verb itself does not carry with it a strongly implied result state. Therefore, a simple past reading is obtained with -*a*-.

With perception statives, interpretation depends on the context. In the default case, nuclear completion coincides with the completion of the state itself. However, when the context strongly favors the depiction of a change from one state into another, especially its opposite, perception statives with -*a*- may have a present reading with respect to perspective time. Examples such as (115) above, repeated here as (118), illustrate the salience of the change-of-state meaning when perception statives have present meaning with -*a*-. That example is parallel to (119), which has prototypical change-of-state verb -*nyelwa* 'become annoyed'.[6] These examples both contrast a past state with a current state; in the current state verbs, perspective time is located in the stative coda resulting from entry into the state at the situation nucleus.

(118)   *kandichiswa, nelo nda̲suwa bulotu*

   ka-ndi-chis-w-a   nelo nda̲-suw-a   bulotu
   IPFV-1SG-hurt-PASS-FV now 1SG-CMPL-feel-FV CL14.good

   'I was sick but now I feel good' (ZT2006Elic57)

(119)   *ndinataba, nelo nda̲nyelwa*

   ndi-na-tab-a   nelo nda̲-nyel-w-a
   1SG-PST-become.happy-FV now 1SG.CMPL-annoy-PASS-FV

   'I was happy (but) now I'm angry' (ZT2006Elic57)

3.2.2.6   Further evidence for completion semantics

-*a*-'s temporal interactions with predicates of various situation types are neatly explained by its (nuclear) completion semantics. Further evidence of -*a*-'s interactions with situation completion, but not onset, is found with situations either asserted (e.g. by temporal adverbials) or known (via world knowledge) to have obtained over a longer period of time. Note first that -*a* can be used with temporal adverbials asserting that events took place over a defined span of time, as in (120).

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[6]It may be noted in both of these examples that the forms – prehodiernal imperfective in (115) and general past, which often has imperfective readings (see 7.2.1) in (119) – appear to treat true statives like -*chiswa* and change-of-state verbs like -*taba* identically. These forms, it seems, interact differently with internal temporal structures than does -*a*-, which refers only to nuclear completion. Note also that prehodiernal imperfective *ka*- has an inherent tense component, dissociating the world of the situation from the current cognitive world. Past -*na*- relates topic time (the phase it selects) to perspective time, though without changing temporal domains (making it a "tenor" in Botne & Kershner's (2008) framework). -*a*-, in contrast, only creates temporal meanings as a consequence of its completion semantics.

(120) *twā́twá èchǐfùmò chònsê*

twa̱-tu-a   echifumo   chonse
1PL.<u>CMPL</u>-pound-FV CL7.morning CL7.all

'we pounded all morning' (ZT2009Elic67)

In fact, even if the situation described had its beginning one or more days before the time of utterance, -*a*- may be used if nuclear completion obtains (121) or is relevant (122) in the domain of perspective time (here, utterance time). In (121), the nuclear completion of a two-day walking event ends at perspective time.

(121) *twà̱yèndá àmázùbà òbǐlè, ndétùsìkà*

twa̱-yend-a   amazuba o-bile,   nde-tu-sik-a
1PL.<u>CMPL</u>-walk-FV CL6.day CL6-two DM-1PL-arrive-FV

'we('ve) walked two days, now we're just arriving' (ZT2009Elic67)[7]

Example (122) refers to the time after planting. The sprouting and growth of plants is a process taking multiple days. However, the perspective time here is the time when they have grown enough for weeding, i.e. the completion of a subjective nucleus of sufficient growth.[8]

(122) *ezilya za̱mena nokutawula*

ezilya   za̱-men-a   noku-tawul-a
CL10.crop CL10.<u>CMPL</u>-sprout.up-FV COM.NARR-weed-FV

'the crops have sprouted up, then [we] weed' (ZT2007Elic89)

3.2.3   Anterior or perfective marker?

In a number of Niger-Congo languages, Bantu and otherwise, the same forms are used to describe both past events and present states; as shown in previous sections, Totela -*a*- can also be with both past (eventive) and present (stative) meaning, although the distinctions are not only lexically, but also pragmatically determined. This section examines analyses of past event/present state morphemes analyzed as perfectives or anteriors in Bantu and other Niger-Congo languages, concluding that a nuclear completion analysis better explains the

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[7]Note that (121) contains a zero-marked non-completive (*ndétùsìkà*); see chapter 4 for further details.

[8]When the relevance of a change-of-state's completion is prior to reference time, prehodiernal -*ka*- is also used, as in (1).

(1) ilya   inako   yonse mani twa̱-ka-kul-a
     CL9.DEM CL9.time CL9.all until 1PL.<u>CMPL</u>-PREHOD-grow.up-FV

     'that [was what it was like] all the time until we grew up' (ZT2007Narr14.VK, *Akale-kale*)

See chapter 5 for more details on prehodiernal -*ka*-.

Totela data than other proposed solutions, which refer to (e.g.) modality (Cover 2010) and relevance (Nurse 2008).

In Bantu, such forms are typically described as "anterior" (or "perfect"; see also chapter 6 for more on the Bantu anterior); in aspect-prominent,[9] non-Bantu Niger-Congo languages, the "perfective" typically serves this function (Nurse 2008:154). Cover (2010) reports on the Perfective in Badiaranke, a language from the Tenda group of the Atlantic Niger-Congo family. The Badiaranke Perfective appears to fit this pattern neatly. In Badiaranke, the Perfective form is used with states to give a present reading. This is true for all states, both permanent and temporary.

Cover shows that the reading is not due to inchoative situation type (i.e. perfective of entering a state) and argues that traditional notions of perfectivity as viewing the situation "as a whole" cannot account for these semantics: Temporary states would be expected to end within topic time (following Klein 1994), and permanent states could not be contained within topic time at all. Cover proposes instead a modal analysis in which Perfective-marked verbs are true at an interval i in every "metaphysical alternative" to the base world (usually the actual world), where metaphysical alternative is defined as any world identical to the base world up to and including perspective time t. Thus, non-state verbs must receive a past interpretation, because for the situation to be true (fully realized) in every metaphysical alternative by perspective time, the interval i must be non-momentary and its final endpoint must be located at or before t. States, on the other hand, have the "subinterval property", meaning that if they are true over an interval, they also hold at each subinterval, including instantaneous subintervals. Therefore, the state can be true at an instantaneous interval i equivalent, by default, to perspective time t, and the state holds when evaluated at t. The Imperfective, in contrast, is used with situations that have not reached completion in the base world at perspective time, but are fully realized in the "best possible" alternative worlds. Therefore, the Badiaranke Perfective is used to depict a continuing state with state verbs and a past eventuality with non-state verbs; the Imperfective is used for not-yet-complete sitautions: "in- progress [progressive], habitual, future, conditional/counterfactual, and epistemically probable eventualities' (Cover 2010:89).

Totela -*a*-, unlike the Perfective in Badiaranke, typically does *not* occur with "true" stative verbs, describing non-inchoative states such as -*saka* 'want, like, love' or -*pona* 'live'. The "statives" for which -*a*- commonly has present-tense interpretations in Totela are, instead, change-of-state verbs such as -*katala* 'get tired'. Still, an analysis incorporating the notion of full development is compatible with the notion of completion. In Totela, unlike in Badiaranke, for completion to obtain, there must be some sense of process (activity or change of state) leading up to the situation's completion.

It should also be noted that -*a*- stands in opposition to a hodiernal imperfective form with past -*na*-, as in (123).

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[9]That is, languages in which tense is not marked or is not obligatorily marked, and aspect is often if not obligatorily marked. Bhat (1999) hypothesizes that all languages may be categorized typologically as tense-, aspect-, or mood-prominent. The prominent category is more "obligatory", "systematic", and "pervasive" than the other two (Bhat 1999:95-97).

(123) **àwá ndìnàláwùkà**, **nd<u>à</u>wààná** òmùntù nàlyâ

awa	ndi-na-lawuk-a	nd<u>a</u>-waan-a	omuntu	na-li-a
CL16.LOC(DEM)	1SG-HOD.IPFV-run-FV	1SG.<u>CMPL</u>-find-FV	CL1.person	SIT-eat-FV

'**while I was running [today], I came upon** a person [who was] eating' (ZT2009Elic29)

-*a*- is clearly not a perfective marker in the traditional sense of depicting a situation as an unanalyzed whole: the previous sections have demonstrated that -*a*- situates perspective time only with respect to nuclear completion, and not to situation onset or a post-nuclear coda. In general across languages, the markedness status of the imperfective vs. perfective is unclear and varied, leading Dahl (1985:69-72) to treat them as "equipollent", although this is not necessarily the case within particular languages. The relationship between imperfective and perfective in Totela, if -*a*- fills the role of perfective, is not a simple binary opposition. In Totela, it seems that the distinction is not imperfective vs. perfective, but rather imperfective vs. completive, where the completive, by virtue of marking nuclear completion, also fulfills some typical perfective function. Further exploration of the notion of verbal "completion" and "culmination" as a function of situation type may lead to a better understanding of the role of forms labeled "perfective" across Bantu, as these are still poorly understood overall (see Seidel 2009).

One analysis of a Bantu marker, labeled "perfective", that *is* consonant with the temporal interpretations of -*a*- in Totela is found in Botne (2010), who analyzes -*ILE* markers in several northeastern Bantu languages. In Luwanga (JE.32) and Lusaamia (JE.34), the -*ILE* reflex -*ire* may have present stative and past dynamic (change-of-state) readings, like Totela -*a*-, as shown for Lusaamia in (124).

(124) en-jóóny'-ire
1SG-become.tired-PFV
a: 'I am tired'
b: 'I got tired' (earlier in the day)

(Botne 2010:44, ex. 15)

Botne describes Lusaamia (and Luwanga) -*ire* as a perfective marker, defining perfective as making "an assertion about a time of the event subsequent to the endpoint of the event nucleus that serves as a reference anchor", namely that the "nucleus . . . named by the verb is perceived as having been realized" (Botne 2010:43). Botne accounts for the two readings with change-of-state verbs by introducing a "point-of-view" variable π, somewhat similar to what I call perspective time, which may be located either prior to utterance time in a "situation centered" reading, or at utterance time in a deictic, "speaker-centered" reading. Speaker-centered interpretations give present state readings as in (124a), while situation-centered readings are dynamic, depicting a change of state in the past (124b). In both cases, point-of-view π follows the situation nucleus (Botne 2010:45).

Botne's description of *-ire*, in its basic details, corresponds with interpretive possibilities for Totela *-a-*; the major differences seem to be in the terminology employed, and in Botne's introduction of the point-of-view variable. In Botne's account, point-of-view is equated with utterance time only with the present state reading. Under this account, the identification of perspective time with utterance time or any other contextually-introduced time is a separate issue from its location with respect to the situation's coda.

As noted above, further investigation of "perfective" semantics across Bantu will be instructive, to see whether what is typically labeled perfective has similar semantics to Totela *-a-* and Lusaamia *-ire*.

An alternative analysis that must also be considered is that *-a-* is an anterior or perfect marker. Noting that non-Bantu perfectives in Niger-Congo often play the role he posits for the Bantu anterior Nurse (2008) proposes that the present state/past activity interpretations, common across Bantu with forms like *-a-*, derive from the relevance component of the anterior. Because the anterior function of *-a-* is so common across Bantu,[10] Nurse's proposal for the anterior's temporal interpretations is worth exploring in Totela. However, I will show that in Totela, it is not a relevance component that allows for the various temporal readings with *-a-*. Rather, as proposed above, *-a-* refers to verbal "completion", which is also dependent on situation type.

Nurse states his relevance theory as follows:

> For an action verb, for example, anterior represents a situation that is completed but relevant, whereas for a stative verb anterior represents the continuing state resulting from an action initiated in the past (Nurse 2008:73)... Either the present or later state results from that earlier situation (mostly for stative verbs) or the past situation is relevant to the later situation (mostly for dynamic verbs) (Nurse 2008:95).

Nurse also notes that only three formal encodings of the anterior are widespread across Bantu. These are shown in (125), taken from Nurse (2008:156).

(125) a. *-Ø-...-ile* (occurs as anterior in 29% of sample languages)
　　　 b. *-a-...-ile* (14%)
　　　 c. *-a-...-a* (19%)

More details on the cross-Bantu and historical distribution and semantics of *-a-* are discussed below in 3.4.

A primary argument against a relevance-based explanation of *-a-*'s temporal semantics is that, unlike *-ite* (chapter 6), it does not have a strong relevance component to its function, aside from the general relevance expected of any utterance. Use of *-a-* does not require a

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[10]Note that past/perfective *-a-* meanings are also common. The *-a-* marker is most common pre-stem marker across Bantu (Nurse 2008:82), and grammatical development of anterior to perfective meaning is well-attested (Bybee *et al.* 1994). As is discussed in greater detail in section 3.4, Nurse does not make strong claims about the early semantics of *-a-*, positing instead that multiple *-a-* forms, with different meanings (e.g. past and focus), were present in Proto-Bantu.

result state including perspective time. This is evidenced in the variation of interpretations possible with change-of-state verbs, which, as shown in (100), can be interpreted as expressing a state that holds at perspective time, or of past entry into a state that no longer holds ('I am surprised' vs. 'I got surprised', or 'I am hungry' vs. 'I was hungry', as in (126)). A similar vagueness is seen with other predicates having a result state, as in (127). These utterances, unlike the -*ite* utterances discussed in chapter 6, do not depend on a relevant resultant state.

(126)   *ndafwa̲ inzala kono tandichifwiile inzala*

nda̲-fw-a   inzala   kono ta-ndi-chi-fwiile   inzala
1SG.CMPL-die-FV CL9.hunger but   NEG-1SG-PERS-die.STAT CL9.hunger

'I was hungry but I am not still hungry' (ZT2007Elic91)

(127)   *ndà̲wà*

nda̲-w-a
1SG.CMPL-fall-FV

'I fell (and possibly got up again)' (ZT2007Elic123)

Furthermore, perfect forms in most languages are not used as default forms to refer to past situations,[11] and appear rarely in narrative clauses (see e.g. Labov & Waletzky 1967:90; Dahl 1985:138; Fleischman 1990:30). For example, in an English dinnertime conversation if one participant asks another about the events of the morning, a clear felicity contrast may be observed between the Simple Past (128a) and the Perfect(128b):

(128)   a. I ate breakfast, then I walked the dog.
         b. @I have eaten breakfast, then I have walked the dog.

In contrast, -*a*- is the default marker used to describe past, non-imperfective situations on the day of perspective time. A relevance analysis would have to account for the lack of a distinction between relevant events of the day and non-relevant (or less-relevant) situations. If all events of the day are deemed relevant due to their overlap with the hodiernal domain, the notion of "relevance" becomes powerless in explaining -*a*-'s typical temporal interpretations. Instead, temporal interpretations may be accounted for entirely with the notion of nuclear completion discussed above. Relevance effects, I argue in 3.2.4, are the result of -*a*-'s default location in the associative domain.

While -*a*- sometimes does describe situations with relevant results (especially with change of state verbs), in other ways, it is not prototypically perfect in two important ways. The first

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[11]In other languages, including German and many Romance languages, perfect forms may in some or most cases be used with near equivalent meaning to simple pasts, although there may be register differences. Giorgi & Pianesi (1997:87-90) show that in Italian, there are demonstrable differences between Perfects and Simple Pasts; Bertinetto & Bianchi (2003:575-577) counter that while differences exist, the perfects in Italian and many other languages are in many cases ambiguous, functioning either as perfects or synonymously with simple pasts. If synonymous with simple pasts, these expressions are formally, but not semantically, perfect.

is formal. As Dahl (1985:129) notes, perfects are generally periphrastic cross-linguistically – although most exceptions seem to occur most frequently in the Niger-Congo family.[12] More significantly, -*a*- does not fill canonical perfect/anterior roles in Totela, so an argument for an ambiguous form seems weak. Comrie (1976) famously lists four major subtypes of perfect (/anterior) functions: PERFECT OF RESULT, EXPERIENTIAL PERFECT, PERFECT OF PERSISTANT SITUATION, and PERFECT OF RECENT PAST. None of these matches precisely with -*a*- in Totela.

Perfect of Result   A Perfect of Result indicates that a present situation results from a past situation, as in 'John has (already) gone to Daniel's house (and (e.g.) is therefore not here, etc.)', or 'the king has spoken (and so it is decided)'. Verbs marked with -*a*- may – but need not – convey a sense of current result or relevance. The lack of evidence for a strong result component is shown in (126) and (127) above.

Experiential Perfect   Experiential or "Existential" Perfects (Dahl 1985) describe an experience within the "lifetime" of the subject that is of some relevance to the topic at hand (Portner 2003:460). Forms other than plain -*a*-, such as those in (129), are used to convey Experiential Perfect meanings in Totela. The construction in (129a) uses past *na* and is also used in pluperfect contexts; (129b) has a simple prehodiernal dissociative -*ka*- form (see chapter 5).[13]

(129)   a. *mubupono bwenu* **mw<u>a</u>nayi** *kwaLusaka?*

mu-bupono   bwenu   **mw<u>a</u>-na-y-i**
CL18(LOC)-CL14.life CL14.2PL(POSS) 2PL.<u>CMPL</u>-PST-go-FV
kwa-Lusaka?
CL17(LOC)-Lusaka

'in your life, **have you been** to Lusaka?' (past anterior: lit. 'had you gone') (ZT2007Elic67)

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[12]Dahl argues (contra Welmers 1972:348) that it may be more appropriate to analyze many Bantu so-called perfects or anteriors as recent pasts, which often convey relevance as a result of temporal proximity (Dahl 1985:135-136). Welmers describes these forms as "completive" or perfects of result. As argued, completive is a more accurate description of -*a*-'s role in Totela, when completion is viewed with respect to the situation nucleus. -*a*- is not a simple past. On the other hand, as argued above, relevance and "result" effects are an epiphenomenon of completion semantics and the default location of -*a*- in the associative discourse domain.

[13]The temporal clause in (129b) is an artificial – but grammatical – translated construction. In general, my impression is that prehodiernal constructions (as in (129b), but with more natural word choice in the 'since' clause) are more commonly used than the past anterior (as in (129a)) to express 'have you ever'. The temporal clause in (129b) comes perhaps closest to conveying an Experiential Perfect meaning, as it evokes a state that started at the time of the situation's beginning. However, this state does not necessarily continue holding for the duration of the subject's life, as in *nd<u>a</u>li kwingila muñanda* 'since I entered the house'. Also, what is of interest here is an experience *within* the time frame evoked, not the time frame itself. 'Since' clauses are discussed in more detail in 3.2.5.

b. *mwa̱li kukalisa okupona, **mwa̱kaya** kwaLusaka?*

mwa̱-li   ku-kalis-a   oku-pon-a,   **mwa̱-ka-y-a**
2PL.<u>CMPL</u>-be NARR-begin-FV NARR-live-FV 2PL.<u>CMPL</u>-PREHOD-go-FV
kwa-Lusaka?
CL17(LOC)-Lusaka

'in your life (since you began to live), **have you been** to Lusaka?' (prehodiernal:
lit. 'did you go') (ZT2007Elic68)[14]

Perfect of Persistent Situation   Neither is -*a*- used to report persistent situations, continuing to perspective time, as in *I've known him all my life* or *John has been eating cookies all morning.*[15] Instead, non-completive -*la*- is used, as in (130).

(130)   *íswè tùlàchìswà òkùzwá èzílìmò zòbílè*

iswe   tu-la-chis-w-a   oku-zw-a   ezilimo zo-bile
1PL.PRON 1PL-PRES-hurt-PASS-FV NARR-come.out-FV CL8.year CL8-two

'we've been sick for two years' (ZT2009Elic67)

Perfect of Recent Past   Finally, although -*a*- is often used to report recent (hodiernal) events, it is not a "Hot News" perfect, as Portner (2003:460) describes the Perfect of Recent Past. It can be used for any situation in the currently evoked domain, for example, to ask and answer questions such as 'What did you do this morning?'. "Recentness" effects come from the associative domain's default identification with the day of utterance, which is discussed further in 5.3.2.4. The next section discusses -*a*-'s behavior with respect to discourse domain.

3.2.4   -*a*- and domain marking

Recall that (Botne & Kershner 2008) define the function of tense as projecting from the here-and-now "reality" of the current discourse world to a "dissociated" cognitive domain. Types of dissociation (reality, time, and space) are schematized in table 3.6.

In this section, I argue that -*a*- is unmarked for associative/dissociative domain. As a result, the -*a*- maker does not change the currently invoked domain. Instead, it marks completion in the domain of context.

A key piece of evidence is the possibility of co-occurrence with both prehodiernal -*ka*- and distal -*ka*-, both of which, it is argued in chapter 5, shift the discourse context to a dissociated domain. These forms' main function, I argue, is to shift discourse focus to a world temporally or spatially excluded from the cognitive world of perspective time. -*a*- has

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[14]A form with only -*a*-, e.g. *mwa̱ya kwaLusaka?* would mean 'did you go to Lusaka (today)' or 'have you gone to Lusaka (today)'.

[15]Note that the sense of persistence in these examples may be due to stative verbs and/or progressive forms, rather than the use of the perfect itself.

	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 3.6: Cognitive domains in Botne & Kershner (repeated)

no such sense on its own, and does not change the meaning of either *-ka-*, except to add aspectual (completion) semantics.

Note that the prehodiernal marker *-ka-* is distinct from distal marker *-ka-* and may co-occur with it:

(131) *ndà**kàkà**yèndà*

nd<u>a</u>-**ka**-**ka**-yend-a
1SG.<u>PFV</u>-PREHOD-DIST-walk-FV

'I walked (elsewhere than here, yesterday or before)'

However, the forms do not need to co-occur, and can have either temporal or distal meaning, as in (132) and (133), respectively.

(132) *ndà**kà**yèndà*

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

'I walked (yesterday or before)'

(133) *ndà**kà**yèndà*

nd<u>a</u>-**ka**-yend-a
1SG.<u>CMPL</u>-DIST-walk-FV

'I walked (elsewhere than here)'

Finally, a dissociative prehodiernal prefix *ka-* occurs in imperfective contexts without completive *-a-*:

(134) ***kà**ndìyêndà*

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

'I was walking / I used to walk'

Further evidence that -*a*- maintains the currently invoked domain of discourse, but is not specified as associative, is its common occurrence in conditional (135)[16] and counterfactual (136) protases and apodoses. Example (135) is from a narrative about the speaker's long-ago childhood, describing the daily activities. Because the time frame has already been established, the prehodiernal past marker is not required. In the counterfactual in (136), *kámbè* invokes a counterfactual world; subsequent -*a*- forms maintain that imagined reality.

(135) *esi twa̱mana okutwa kwijika kulya*

esi   twa̱-man-a   oku-tu-a   ku-ijik-a   ku-li-a
COND 1PL.CMPL-finish-FV NARR-pound-FV NARR-cook-FV NARR-eat-FV

'when we finished pounding we cooked and ate' (ZT2007Narr14.VK)

(136) *kámbè twá̱lyà àhúlù, kámbè twékùtà*

kambe   twa̱-li-a   ahulu kambe   twa̱-ikut-a
COUNTER 1PLCMPL-eat-FV a.lot COUNTER 1PL.CMPL-get.full-FV

'if we had eaten a lot, we would be full' (ZT2009Elic40)

If -*a*- were marked for associative domain, a semantic clash would be expected with dissociative-type utterances such as those in (132)-(136).

Another logical hypothesis might be that -*a*- also shifts to a dissociative. However, its distribution points away from this analysis; instead, -*a*- maintains the currently salient discourse domain. This may be seen quite clearly in complex clauses. In (137), a prehodiernal domain, the day of finding the person dead, is established in the first clause. Because the death occurred in the same domain as the arrival, -*a*- is used in the second clause. (For a discussion of the relationship between hodiernality and the associative domain, see 5.3.2.4.) In example (137), the dying event took place in a different domain from the arrival, and -*ka*- is used in both clauses.[17]

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[16]Conditional marker *ésì* means either 'if' or 'when', depending on context, and the constructions are morphosyntactically identical.

[17]When the relevant contrast is between the domain of utterance and the domain of the situation's occurrence, -*ka*- is used; when perspective time is shifted to the dissociative domain, as in (137), further clauses may mark the temporal relationship between that domain and other situations. A longer version of (137b) shows both cases:

(1) [Context: the person described died on Tuesday; the speaker arrived on Wednesday]
     nda̱kàsìká* lwàtátù; *nda̱kàwàànà a̱káfwà kàlê

nda̱-ka-sik-a   lwatatu;   **nda̱-ka-waan-a**
1SG.CMPL-PREHOD-arrive-FV CL11.Wednesday 1SG.CMPL-PREHOD-find-FV
a̱-ka-fw-a kale
textsc3sg.CMPL-PREHOD-die-FV already

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

(137) a. [Context: the person described died on the morning of the speaker's arrival]
...*nd<u>à</u>kàmùwààn à* **áfwà**

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

'I found **him dead**' (lit. 'I found him he died') (ZT2009Elic84)

  b. [Context: the person described died on Tuesday; the speaker arrived on Wednesday]
...*nd<u>à</u>kàwààn à* **àkáfwà kàlê**

nd<u>a</u>-ka-waan-a   **a-ka-fw-a kale**
1SG.<u>CMPL</u>-PREHOD-find-FV 3SG.<u>CMPL</u>-PREHOD-die-FV already

'I arrived on Wednesday; I found that **he already died** [on Tuesday]' (ZT2009-Elic84)

Similar effects are found with relative tense marking in the future. -*a*- indicates that the situation is complete with respect to the established future perspective time. In example (138), both the -*a*- form and the prehodiernal form -*a-ka* are possible as pasts-of-futures.[18]

(138) [Context: 'if you come in two weeks you will find that I left the week before']

both possible: nd<u>à</u>-y-à   / nd<u>à</u>-<u>kà</u>-y-à
         1SG.<u>CMPL</u>-go-FV / 1SG.<u>CMPL</u>-<u>PREHOD</u>-go-FV

'I left [the week before]' (ZT2009Elic84)

These and similar examples show that -*a*- marking indicates completion as of perspective time in the domain of context. This fact accounts for the hodiernality effects of -*a*-. If no domain is specifically invoked in context, the default domain is the here-and-now of hodiernal situations, i.e. the associative domain. Defaulting to the associative domain also accounts for the relevance effects sometimes seen with -*a*-. If the perspective time is within the here-and-now, and completion before perspective time is asserted, then completion and its ensuing results may be presumed to have some relevance at perspective time. This allows for use of -*a*- with situations where the completion itself did not necessarily occur within the hodiernal domain, but the completion is both prior to and relevant for perspective time. Such an example is shown in (139), taken from a narrative and in reference to several days' recovery after several days' illness:

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[18]In fact, there is some evidence that this sort of temporal flexibility is also sometimes found with pasts-of-pasts. It seems likely that in either case, relevance of the results within the domain of perspective can account for the choice of -*a*- or -*a-ka*- marking. A plausible hypothesis might be that if the temporal distance is highlighted, a -*ka*- form is used, while if the main point is the effects in the current discourse domain, -*a*- is used alone. This is a topic for further investigation, but see examples (139) and (140) for evidence that relevance to perspective time can influence domain choice.

(139) *kono batili Mulimu <u>atutusa</u>*

      kono batili   Mulimu   <u>a</u>-tu-tus-a
      but   no/INTERJ CL1A.God CL1A.<u>CMPL</u>-1PL-help-FV

      'and oh my, truly, God (has) helped us' (ZT2007Narr18.VK)

In (139), God's help is portrayed as relevant for the ensuing state of health holding at utterance time. The important situation resulting from the help holds at perspective time (and the help is also assumed to continue). Similarly, in (140), the addressee (me) arrived weeks before, but the community's state of being busy with church programs has held from the time at which I encountered them:

(140) *Chwale njeyeyi inchechi mw<u>a</u>waana inywe ba… ba-Thera. Mw<u>a</u>tuwaana mumapulo-*
      galama amangi.

      chwale nje-yeyi   inchechi   **mw<u>a</u>-waan-a**   inywe   ba-Thera.
      INTERJ COP-CL9.DEM CL9.church 2PL.<u>CMPL</u>-find-FV 2PL.PRON 2PL-Thera

      mw<u>a</u>-tu-waan-a   mu-mapulogalama   a-mangi
      2SG.<u>CMPL</u>-1PL-find-FV CL18(LOC)-CL6.program CL6-many

      'And so that's the church **you('ve) found** [here today], Miss Thera. **You('ve)**
      found us in the midst of a lot of programs.' (ZT2007Narr44.VK)

In examples (139) and (140) it is not the use of completive -*a*- that is noteworthy, but the exclusion of prehodiernal -*ka*-; as with the crop growing example in (122), the effects of the situations described are included in the domain associated with perspective time.

Recall that Botne & Kershner (2008:167) define "tense" as marking cross-domain relationships. Under their model, then, -*a*- cannot be considered a tense marker. This is consonant with the arguments in 3.2.2 that -*a*- does not mark tense, but rather the relationship of situation completion and perspective time. Situation completion is prior to perspective time, but the temporal distance is not specified. Because perspective time is by default in the hodiernal domain (and usually equivalent to utterance time), the situation's completion, when asserted, is assumed to be either temporally proximate to perspective time (i.e. also in the hodiernal domain) or otherwise very relevant to perspective time, in that a resultant state holds at perspective time.

Relevance, then, is not linked to a result state by default. Instead, completion is assumed to be in the domain of perspective, by default, the hodiernal domain. The "result state" interpretation seems to be a sort of "last resort": If the situation referred to is known not to have attained completion within the currently evoked domain, the domain clash may be resolved with the implication of a result state holding at perspective time in the current domain. While I do not have direct access to Totela speakers minds as they make and interpret utterances such as those in (139) and (140), this posited interpretive process is consonant with the data and with Wilson & Sperber's (2004) RELEVANCE THEORY, in which hearers presume relevance of all utterances and attempt to understand utterances following

a "path of least effort" in which possible interpretations are tested "in order of accessibility" (Wilson & Sperber 2004:613). The most accessible reading is one in which completion obtained within the currently-evoked domain (usually the day of utterance); "result state" interpretations are further down the interpretive "path", but can be accessed if necessary.

3.2.5 Summary and implications of analysis

I have argued that -*a*- marks completion of a situation's nucleus with respect to perspective time in the contextually evoked domain. Because situation completion is defined with respect to event-structure nuclei, situations without a result (coda) state (non change-of-state verbs) are typically interpreted as fully past. Change-of-state verbs, in which the post-nuclear coda consists of a resulting state, may be interpreted either as present states (perspective time is located within the coda) or past changes-of-state (perspective time is subsequent to both the nucleus and the coda). The -*a*- marker makes no reference to domain, and therefore locates the perspective time within whatever domain is currently evoked by context. Thus, the default reading places perspective time – and, usually, situation completion – within the hodiernal domain. When other domains are evoked in context, "relative" past (past of past and past of future) readings are possible. Because use of -*a*- does not entail a "perfect state" (in the sense of Nishiyama & Koenig 2010), nor does it presuppose relevance (as in Portner 2003) other than relevance associated with any utterance, nothing is gained by labeling it a "perfect" or "anterior" marker. Rather, it is best understood as a marker of nuclear completion.

This analysis also helps to explain two somewhat puzzling uses of the -*a*- marker. The first is its use with stative -*li* 'be', followed by an augmentless infinitive in 'since'-type clauses. These clauses often generate a reading similar (but not identical) to English 'since X. . . ':[19]. In these examples, -*a*- seems to coerce the situation type of -*li* so that the construction indicates the complete entry into the state of existing after the occurrence of the event denoted by the infinitive.[20] Some examples are shown in (141) and (142).

(141) *buti muponena* **tw<u>a</u>li kumisiya** *momo mumunzi wenu?*

buti	mu-pon-en-a	**tw<u>a</u>-li**	**ku-mi-siy-a**	momo
CL14.manner	2PL-live-APPL-FV	1PL.<u>CMPL</u>-be	INF-2PL-leave-FV	CL18(LOC).DEM
mu-munzi		wenu?		
CL18(LOC)-CL3.village		CL3.2PL(POSS)		

'how have you been **since we left you** here in your village?' (ZT2007Narr15.TL)

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[19]Another possible use seems to be something like 'you have been X-ing. . . '

[20]Similar morphology and temporal interpretations are found in Lozi, although Lozi -*a*- forms in general do *not* correlate with Totela -*a*- forms in their distributions and temporal interpretations. Totela's completion semantics may eventually provide a clue to the possibility of transferring this construction in either direction; more data are needed from both languages and their relatives.

(142) **nd_ali kwingila muñanda**, *tandinamubona*

nda-li   **ku-ingil-a**   **mu-ñanda**,   ta-ndi-na-mu-bon-a
1SG.<u>CMPL</u>-be INF-enter-FV CL18.LOC-CL9.house NEG-1SG-PST-3SG-see-FV

'I haven't seen him **since I entered the house**' (ZT2007Elic57)

SM-*li ku*-V constructions have complex distributions and interpretations, and further study is needed. However, analysis of -*a*- with completion semantics provides a plausible account of how the 'since' interpretations may be derived, if -*a*- with -*li* allows -*li* to be treated like an inchoative, as with the perception (and other) statives discussed in 3.2.2.

A second puzzle that appears, at first glance, to be troublesome both for a past-tense analysis and a completion analysis is -*a*-'s use with situations that have not yet occurred. Events described with -*a*- need not be finished in the actual world at the time of utterance: -*a*- may also be used with events that are "as good as finished", as in the following examples.

(143) [Stimulus question: 'where are you going?']
nd_àyá kwàKàìwàlá bùlyô

nda-ya   kwa-Kaiwala   bulyo
1SG.<u>CMPL</u>-go-FV CL17(LOC)-Kaiwala only

'I'm just going to Kaiwala' (ZT2009Elic121)

(144) *nd_àkèzà*

nda-ka-iz-a
1SG.<u>CMPL</u>-DIST-come-FV

'I'm coming' (common expression)

If -*a*- is a Kleinian past tense, placing topic time prior to the utterance time, these examples are highly unexpected. Neither may these events, however, be said to be complete with respect to utterance time. Fortunately, at least two approaches compatible with completion semantics can explain such uses. The first approach appeals again to cognitive domains. In (143) and (144), utterance time does not play a role. Rather, the speaker appears to be asserting that *at the perspective time that matters for the speaker and hearer* the situation's completion has transpired. In the case of (143), for example, this might be the time at which the person's availability is requested or required.

Nurse reports similar findings with what he analyzes as a Sonjo [E.46] anterior:

> The use of an anterior for future reference first drew my attention in a shop in a Sonjo. . . village, when a man just about to make a purchase apparently announced that the purchase had just been made. . . 'We are about to buy, the thing is as good as bought' That is, he used an anterior. . . to represent an event in the immediate future. This rests on the speaker's certainty that the decision has been taken (in the past), and that the future action is as good as taken,

because the consequences of the past decision are felt through the present and into the future. Half an hour later, when I took his form out of context and asked him for a translation, he interpreted it as an anterior and only reluctantly agreed it might refer to a future event. Speakers of other languages acknowledged the same possibility in their languages in later discussions (Nurse 2008:163).

A second possibility for explaining such examples relates to situation-type coercion. It has been shown in 3.2.2.4 for statives of perception that "completion" may refer either to ending of the state of perception, or to its achievement-like beginning.

Note that both (143) and (144) refer to paths of motion. It may be that the salient fact at utterance time, and hence the situation nucleus, is that the path has been started upon; the journey itself is a result "state" of starting. Example (143), then, might mean something like 'I've left for Kaiwala (only)'. Examples like (144), especially when they include distal -*ka*-, might also mean something like 'I have left the place where I was (far from hearer) and am on my way (to the hearer)'.[21] Similarly, the 'since' examples in (141) and 142) describe entry into an existential state.

In either solution, completion semantics, combined with pragmatic interpretations based on discourse context, can provide a unified account of -*a*-'s temporal role. Thus, all of -*a*-'s typical uses, as well as its special uses, may be explained under an analysis of nucleus completion, with context contributing the necessary information to determine temporal relationships. The assertion of completion with respect to perspective time is important in discourse structuring; -*a*-'s role as a completion marker is evident in its narrative uses, discussed in the next section.

3.3   The role of "completion" in narratives

Recall from 7.6 that in Totela narratives, the majority of verbs are not inflected for tense or aspect, but rather occur with special narrative marking (*ku*- or *noku*-. Thus, the appearance of TAM marking requiring inflection is not default, but rather, I argue, indicates the intentional use by speakers for some purpose. The completion semantics proposed for -*a*- in the previous section make it ripe for use as a marker of information structure. This is particularly evident in narratives, where all of the events discussed are assumed to be complete at the time of telling. The use of completion marking, then, can indicate things like scene completion, or completion with respect to story-time perspective (resumptive uses). The lack of domain change with -*a*- is also evident in its narrative distribution.

Totela narratives typically begin and end with dissociative *ka* perfective or imperfective marking, as discussed in chapter 5. These markers are rarely used within the actual narrative body, where -*a*- commonly occurs. Verbs marked with -*a*- and -*ka*- make up about 20% of non-dialogue verbs in narratives. They are by far the most common markers on verbs marked for TAM (as opposed to uninflected "narrative" verbs, see 7.6): They make up nearly 50% of inflected verbs. The -*a*- marker is more common than prehodiernal -*ka*- (approx. 5:1 ratio).

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[21]Similarly, Cover (2010:88) notes that the Badiaranke verb for 'go (to)' (*raŋ*-) can also mean 'depart for'.

In general, -*a*- occurs in the following contexts within narratives:

a. Beginnings (and sometimes endings) of non-initial episodes within narratives

b. With motion verbs

c. In temporal clauses and when "recapping" events

d. Introducing quotes, with -*li* 'be'

These uses are discussed in turn in the following sections. -*a*- rarely occurs in other contexts not mentioned here.

3.3.1   -*a*- and episodic structure

Verbs marked with completive -*a*- most commonly occur at the beginning of new sub-episodes within a narrative. For example, a sample narrative (ZT2009NarrA19.GS) has 128 verb tokens, including copular constructions. Twenty-seven of them ($\sim$21%) are marked with -*a*-. 107 of the tokens are not part of direct quotations; twenty-two of these are -*a*- marked ($\sim$21%, approximately the same percentage). The story is analyzed as consisting of nine episodes. The first episode has (prehodiernal) imperfective marking on its first verb; the last episode unit is the standard coda with prehodiernal -*ka*-. Of the remaining seven episodes identified for analysis, four have -*a*- marking on their first verb ($\sim$57%).[22] Compare this figure with the fact that -*a*- marking (with and without prehodiernal -*ka*-) occurs only on about 20% of non-dialogue verbs overall. The higher than average marking of episode beginnings with -*a*- suggests that a major function of -*a*- in narratives is to signal episode change.

The use of -*a*- to partition narratives into episodes may be seen in example (145), taken from a personal narrative about the events of the day. Note that in this example, occurring entirely within the hodiernal domain, -*a*- also occurs at the beginning, when the narrative time is set. Most other verbs describing sequential events or actions occur with special narrative marking, but major episodic changes (changes of location, activity, plans, etc.) are marked with completive -*a*-. Parts of this narrative that are not reproduced here involve repetition of the same information, typically with similar verbal marking, or give extra information not relevant to the progression of events.

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[22]Of the remaining three, one is marked with non-completive -*la*-, one is progressive, and one has narrative marking.

(145) *Sunu, **twạbuuka**! **Twạbuuka ndetwạya** kukunyuka obwizu kukakumula bweñanda
. . . **Twạkaboola** [bwangu]. . . Kukaboola kukunyukula kwiza kusika kubawaana abantu
betu abo balitulibelele. **Ndetwạkumbila** echibaka kuti tuchiya kunkwaya.*

sunu **twạ-buuk-a**!	**twạ-buuk-a**	**nde-twạ-y-a**
today 1PL.<u>CMPL</u>-wake.up-FV	1PL.<u>CMPL</u>-wake.up-FV	DM-1PL.<u>CMPL</u>-go-FV
ku-ku-nyuk-a	obwizu	ku-ka-kumul-a
CL17(LOC)-NARR-cut-FV	CL14.grass	INF-DIST-cut(LOZ)-FV
bweñanda	. . . **Twạ-ka-bool-a**	[bwangu]
CL14.CL9.house(POSS)	. . . 1PL.<u>CMPL</u>-DIST-return-FV	[soon]
. . . ku-ka-bool-a	ku-ku-nyukul-a	ku-iz-a	ku-sik-a
. . . INF-DIST-return-FV	CL17(LOC)-INF-cut-FV	NARR-come-FV	NARR-arrive-FV
ku-ba-waan-a	abantu	betu	abo
NARR-CL2-find-FV	CL2.people	CL2.1PL(POSS)	CL2.DEM
ba-li-tu-libelele.	**nde-twạ-kumbil-a**	echibaka	kuti
CL2-PRES.STAT-1PL-wait.for.STAT	DM-1PL.<u>CMPL</u>-ask.for-FV	CL7.excuse	that
tu-chi-y-a	ku-nkwaya		
1PL-PERS-go-FV	CL15(LOC)-CL9.choir		

'Today, **we woke up** [CMPL]! We **woke up**[CMPL], right then **we went** [CMPL] to
cut grass, to cut roofing grass. . . **We came back** [CMPL] soon. . . (When) we came
back [NARR] from cutting grass, we came [NARR] and arrived [NARR] and found
[NARR] them, the people who were waiting for us [ITE]. Right then **we asked** [CMPL]
to be excused so that we could first go to choir [before doing other activities].'

The first completive predicate, *twạbuuka* – repeated by the speaker with the same form
– opens the narrative and sets the time at the time of waking up. Immediately, the topic
changes and the speaker describes her first work of the day, going (*twạya*) to cut grass.
When the grass cutting work is concluded, the speaker returns (*twạkaboola* with distal *-ka-*
to the village. Then the events occurring upon returning are described mostly with narrative
forms, with the exception of an *-ite* form used to describe a non-consecutive state. The final
completive predicate in the example (the narrative continues beyond the text given in (145))
is *twakumbila*. With this form, the speaker indicates the change of original plans that would
have continued the scene back at the village. Instead, the "village" scene is complete, and
the speaker moves on to choir activities.

In this example, then, as in others, *-a-* forms in narrative may mark the completion of
one episode of a story and the onset of another.

Another frequent device for scene change is *-a-* with the rising and setting of the sun, as
illustrated in examples (146) to (148).

(146) *Nàbó kùlìmà kùlìmà kùlìmà. Ízùbà ... **lyàyà**. Sàlákùwà*

nabo   ku-lim-a   ku-lim-a   ku-lim-a.   izuba
COM.3PL.DEM NARR-cultivate-FV NARR-cultivate-FV NARR-cultivate-FV CL5.sun
... **lya̱-y-a**.   sa-la-kuw-a
... CL5.<u>CMPL</u>-go-fv DM.3SG-NONCMPL-call-FV

'Meanwhile she busied herself cultivating [NARR]. The sun **set** [CMPL]. That's
when she calls out [NONCMPL] [for her child]' (ZT2009NarrA19.GS.16-18, *Kalima
Mawundu*)

(147) *Nàkó àkàchèmbèlè nàkó kèná òkúhùpùlá òmùhúpùlò wôkwìzà kúlyà káànê. Mm!
Bwa̱chà. Bèzá kùmpìlì.*

nako   akachembele nako   ka-ina   oku-hupul-a
COM.CL12.DEM CL12.old.hag COM.CL12.DEM CL12-have NARR-think-FV
omuhupulo wa-oku-iz-a   ku-li-a   kaane.   mm!
CL3.thought CL3-INF-come-FV NARR-eat-FV child.3SG.POSS INTERJ
bwa̱-ch-a.   ba̱-iz-a   ku-mpili
CL14.<u>CMPL</u>-dawn-FV 3PL.<u>CMPL</u>-come-FV CL17(LOC)-CL9.fields

'And she, that little old hag, is thinking[PROG] thoughts about eating [the woman's]
child. Mm! **It dawned**[CMPL]. She [the young woman] went[CMPL] to the fields.'
(ZT2009NarrA19.GS.38-40, *Kalima Mawundu*)

(148) *Kùkàtèndà-tèndà zôkúlyà. Kúlààlà. **Bwa̱chà**. Nòkúkàmbàmà hápè kùmpìlì*

ku-ka-tend-a-tend-a   za-oku-li-a.   ku-laal-a.
NARR-DIST-work-FV-work-FV CL10-NARR-eat-fv NARR-sleep-FV
bwa̱-ch-a.   Noku-kambam-a   hape ku-mpili
CL14.<u>CMPL</u>-dawn-FV COM.INF-ASCEND-FV again CL17(LOC)-CL9.fields

'She [the old hag] scurried around preparing [NARR] her dinner. She went to sleep
[NARR]. **It dawned** [CMPL]. Then she [the young woman] went up [NARR] again to
the fields' (ZT2009NarrA19.GS.26-28, *Kalima Mawundu*)

In each of these examples, the sun's rising or setting marks the completion of one set of
activities, and the commencement of another. In (147), an additional -*a*-marked verb follows
bwa̱chà; this seems to be a stylistic choice and may re-emphasize the start of a new episode,
or be related to the use of motion verb -*ya* 'go' (see 3.3.2).

Additional evidence that completive marking is particularly common at scene changes is
the fact that -*a*- occurs only rarely on verbs immediately following songs in narratives. Songs
are disruptive to story action, and the use of a consecutive form, rather than a boundary
marking form, help bring audiences back to the main narrative stream.

3.3.2 *-a-* with motion verbs in narratives

Related to episodic structure is the frequent use of *-a-* with motion verbs. Motion verbs, such as *-ya* 'go', *-boola* 'return', and *-sika* 'arrive', are commonly used to move, via character movement, the story's action from one location to another. Change of location is much like change of scene or episode: one part of the story is complete and the narrative moves on.

For example, in the story from which the examples in (149) are taken, a skin magically transforms into a woman and does housework every day while the owners are away. The ends of the work scenes come when the owners arrive and are marked by *-a-*:

(149) a. *Kùmànà kùzàbìkà pèlè nòkákòlàmà kôkó èkálà, kùmàlìbélà êñándà. Nàbó bà . . . àbénì bè . . . bêñándà **bàsìkà**. Hii!*

ku-man-a   ku-zabik-a   pele no-ka-kolam-a
NARR-finish-FV NARR-soak-FV   PART COM.[INF]-DIST-ascend-FV

koko   a-ikal-a,   ku-malibela   a-iñanda
CL17(LOC).DEM 3SG-stay-FV.RC   CL17(LOC)-CL6.corner   CL6-CL9.house

nabo   abeni   ba-iñanda   **ba̲-sik-a**.   hii!
COM.CL2   CL2.owner   CL2-CL9.house   CL2-arrive-FV   DM

'Finishing[NARR] soaking[NARR] [the millet] then she went up [NARR] to where she stays[PRES.RC], in the corner of the house [in the roof]. And those owners of the house **arrived**[CMPL]. Hii!' (ZT2009NarrA16.GS.50-52, *Kanyama*)

   b. *Àá! Nàbó àbénì bàsìkà. Nàkó nòkúyàngàmá mwìjúlù.*

aa!   nabo   abeni   **ba̲-sik-a**.   nako
INTERJ   COM.CL2.DEM   CL2.owner   CL2-arrive-FV.   COM.CL12.DEM

noku-yangam-a   mu-ijulu
COM.INF-raise.(self).up-FV CL18(LOC)-CL5.top

'Aa! Then those owners **arrived**[CMPL]. And it[the little skin/woman] hung herself up[NARR] in the roofbeams.' (ZT2009NarrA16.GS.32, *Kanyama*)

Similarly, in (150), a narrative scene ends when an old hag tricks a young mother into handing off her baby; the next scene, describes the parallel activities of the hag and baby in one location, and the mother in another. *Àyà* 'she left' marks the boundary.

(150) *"Àngù ndìlàbòòlà." Ii! Nòkúsùmùnùnà kùmúpà. **Àyà**.*

angu   ndi-la-bool-a.   ii!   noku-sum-unun-a   ku-mu-p-a.
soon   1SG-NONCMPL-return-FV   INTERJ   COM.INF-tie-REVERS-FV   INF-3SG-give-FV

a̲-y-a
3SG.<u>CMPL</u>-go-fv

'"I'll come right back." And she [the young woman] untied[NARR] [the baby] and gave it to her[NARR] . She [the old hag] **left**[NARR] .' (ZT2009NarrA19.GS.14-15, *Kalima Mawundu*)

However, when the motion verbs occur within a scene involving a sequence of actions (usually by a single character), completive -*a*- forms are not used. This is illustrated in example (151), where an -*a*- form is used at the beginning of the scene with -*ya* 'go', but not with -*boola* 'return' (or the following -*iza* 'come'), since belongs to the same work episode as the preceding and following verbs. Further evidence for lack of change of episode, interestingly, may be seen in the use of the distal -*ka*- markers, which occur on verbs describing action at the field (-*lima* 'cultivate', -*boola* 'return'), showing that the narrative focus remains on the home (with -*ya* 'go', -*iza* 'come', and -*twa* 'pound'). In this excerpt, in contrast to the excerpt in (145), the episode deals with the topic 'work activities'. (145) discusses different sub-parts (episodes) from the speaker's day.

(151) ...*Bwáchà b*<u>*à*</u>*yá kùmpìlì. Kùkàlìmà. Kùkàlìmà-kàlìmà.* **Kùkàbòòlà** *kwìzà kútwà-twà.*

bw<u>a</u>-ch-a   b<u>a</u>-y-a   ku-mpili.   ku-ka-lim-a.
CL14.<u>CMPL</u>-dawn-FV 3PL-go-FV CL17(LOC)-CL9.fields INF-DIST-cultivate-fv
ku-ka-lim-a-ka-lim-a.   **ku-ka-bool-a**   **ku-iz-a**
INF-DIST-cultivate-FV-DIST-cultivate-FV INF-DIST-return-FV NARR-come-FV
ku-tu-a-tu-a
NARR-pound-FV-pound-FV

'...[When] it dawned, she went[CMPL] to the field. She cultivated[NARR] . She cultivated[NARR] and cultivated[NARR]. She **returned**[NARR] and **came**[NARR] and busied herself pounding[NARR].' (ZT2009NarrA64.GS.46-49, *Nyawi-Nyawi*)

It seems, then, that the frequency of -*a*- with motion verbs is related not to the lexical class, but to their general utility in episode changing, which appears to be a major narrative function of the completive.

3.3.3 Resumptive -*a*- in narrative

Another natural use for a completive in narrative is to sum up a series of events, to provide background information about situations that had occurred before current narrative time, or in temporal clauses ('having Xed...'). These, more overtly than the -*a*- forms signaling scene changes, are closely linked to narrative-internal time. They signal that the situations referred to are complete at the current narrative-based perspective time. These are especially common with the verb -*mana* 'finish' in temporal clauses or situation summaries. Examples (152) and (153) show -*a*- in temporal clauses signaling the completion of something important for future situations in the story. For example the birth in (152) sets the stage for the child's later abduction by the old hag (following events as in (150) above). In (154), -*a*- is also used with -*twa* 'pound' and -*tuula* 'put' for situations that are not consecutive; rather, they refer back to previously completed actions. (154) also contains a further example of a temporal clause with -*bomba* 'soak': the completion of the soaking process is necessary for the subsequent pounding.

(152) *Âwò, kàlì mùntù. Ii! Nòkúsèsá òmwánàkázì, kwíbbàlìlàkó òmwáànà. Ii! **Àmànà** kwíbààlá òmwáànà...*

awo ka-li muntu. ii! noku-ses-a omwanakazi,
CL16(LOC).DEM IPFV.CL1-be CL1.person INTERJ COM.INF-marry-FV CL1.WOMAN
ku-ibbal-il-a-ko omwaana. ii! **a-man-a**
NARR-bear-APPL-FV-CL17(LOC) CL1.child INTERJ CL1.CMPL-finish-FV
ku-ibbal-a omwaana...
NARR-bear-FV CL1.child ...

'Once, there was[PREHOD.IPFV] a man. Ii! And he married[NARR] a woman, and she bore him[NARR] a child. Ii! When **she had finished**[CMPL] giving birth to the child...' (ZT2009NarrA19.GS.3-9, *Kalima Mawundu*)

(153) *esi **twamana** okutwa kwijika kulya*

esi **twa-man-a** oku-tu-a ku-ijik-a ku-li-a
COND 1PL.CMPL-finish-FV NARR-pound-FV NARR-cook-FV NARR-eat-FV

'when **we finished** [CMPL] pounding [the flour] we cooked [NARR] [it] and ate [NARR] [it]' (ZT2007Narr14.VK, *Akale-kale*)

(154) *Kumana kusanza. Esi **abomba** nokuleeta kutwa. Kumana kutwa kuleeta kwijika insima. Wobulya obusu **twatwa** kutuula mumpoto kwijika. Kumana kwijika kutuula amisuba. Alya amisuba **twatuula** nelo ndetwinda kulya.*

ku-man-a ku-sanz-a. esi **a-bomb-a** noku-leet-a
NARR-finish-FV NARR-bathe.CAUS-FV COND CL6.CMPL-soak-fv COM.INF-bring-FV
ku-tu-a. ku-man-a ku-tu-a ku-leet-a ku-ijik-a
NARR-pound-fv. NARR-finish-FV NARR-pound-FV NARR-bring-FV NARR-cook-FV
insima wobulya obusu **twa-tu-a** ku-tuul-a
nshima CL16(LOC).CL14.DEM CL14.flour 1PL.CMPL-pound-FV NARR-put-FV
mu-mpoto ku-ijik-a. ku-man-a ku-ijik-a ku-tuul-a
CL18(LOC)-CL9.pot NARR-cook-FV NARR-finish-FV NARR-cook-FV NARR-put-FV
a-misuba. alya a-misuba **twa-tuul-a**
CL16(LOC)-CL4.plate CL16(LOC).DEM CL16(LOC)-CL4.plate 1PL.CMPL-put-FV
nelo nde-tu-ind-a ku-li-a
now NDE-1PL-take-FV INF-eat-FV

'We finish [NARR] washing [NARR] [the millet]. When **it's soaked** [CMPL] then we take [NARR] it to pound [NARR] . We finish [NARR] pounding [NARR] and bring [NARR] it and cook [NARR] *nshima*. That flour **we pounded** [CMPL], we put [NARR] it in the pot and cook [NARR] it. (When) we finish [NARR] cooking, we put [NARR] it on plates. Those plates **we put** [CMPL] [it on], that's when we take them [UNMARKED] and eat' (ZT2007Narr12.VK, *Emisebezi yetu*)

Because (154) describes actions in a single process, preparing millet to eat, there is no -*a*-marking on subsequent narrative events; instead, resumptive events are marked with -*a*-.[23]

The non-sequential usage bears out numerically, as well. When verbs are coded according to the schema in Labov & Waletzky (1967) for whether they occur in "narrative" clauses (the story would change if they occurred in a different order) or "restricted" clauses (they may be moved one or more clauses backwards or forwards without any meaning change),[24] approximately 25% of verbs in the sample narrative discussed in 3.3.1 are classified as restricted. On the other hand, a much higher percentage of verbs marked with -*a*- are restricted (∼41%), giving background information about previous events, or providing more information about a narrative event, as in (155), where the second clause elaborates the manner of the first clause.

(155) *kàbòòlàkó àyá bùlílà*

[ku]-ka-bool-a-ko   a-y-a   bu-lil-a
[NARR]-DIST-return-FV-CL17(LOC) 3SG.PST-go-FV CL14(ADV)-CRY-FV

'then she returned, she went crying'

3.3.4 -*a*- introducing quotes

-*a*- virtually always occurs when introducing quotes with -*li* 'be', as in (156) and (157). These are highly conventionalized and may be the only possible way of introducing speech with -*li*, which cannot co-occur with the infinitive *ku*- forms of narrative marking.[25] Specific narrative-structuring functions of these conventionalized forms are unclear.

(156) **À** *lì* *"Wîzé bùlyó kòkúnò".*

a-li   u-iz-e   bulyo ko-kuno
3SG.CMPL-be 2SG-come-SBJV only   CL17(LOC)-CL17(LOC).DEM

'**She said**, "You just come over here".' (ZT2009NarrA76.CM.39, *Nyanyambe*)

(157) *Nòkùmùwàmbìlà* **à** *lì* . . .

noku-mu-wamb-il-a   a-li
COM.INF-3SG-speak-APPL-FV 3SG.CMPL-be

'Then she told him, **she said**. . . ' (ZT2009NarrA76.CM.42, *Nyanyambe*)

---

[23]The -*mana* 'finish' verbs may also have been marked with -*a*-; however, it is possible that the speaker here is construing the ending of events as events in their own right.

[24]For this analysis, restricted and free clauses are collapsed into a single category contrasting with narrative clauses.

[25]A different form, -*ba* 'be, become' (Proto-Bantu *bá* is used with infinitives and in other contexts, including with pre- and posthodiernal forms, and in present and future non-statives.

3.3.5 -*a*- in narrative: summary

The above sections have shown that -*a*- occurs within narrative without shifting out of the general time frame of the narrative or of the story-telling. -*a*-'s completive functions are evident in its use at scene boundaries (§3.3.1 and, similarly, §3.3.2), and with narrative events that do not occur in their strict temporal order (§3.3.3). These functions are united by -*a*-'s completive semantics: each indicates that a situation, or set of situations, has reached completion with respect to perspective time. The completion semantics of -*a*- make it very useful as a narrative-structuring device.

Preliminary logistic regression on narrative verbs results support the tendencies outlined here: verbs that are first in an episode are more likely to be perfective-marked (-*a*- or -*a-ka*-, as are verbs that introduce quotes (the idiomatic *ali* 's/he was...'). They are found less commonly in sequences of verbs describing consecutive actions. (The model and data are still being refined; further results will be provided as progress is made.)

3.4 -*a*- and the role of "completion" in Bantu: a brief overview

The -*a*- marker is "easily the commonest pre-stem marker and...the commonest marker of past reference in Bantu" (Nurse 2008:82-83). It is found in about 84% of Bantu languages and acts as a past marker (with various suffixes) in approximately 78%, according to Nurse's survey data (Nurse 2008:82-83). However, -*a*- is not merely a marker of past tense, but has a great proliferation of functions and of forms across Bantu, appearing with various length and tonal patterns. An -*a*- form also marks present or future in approximately 32% of Nurse's set of sample languages. The multitudes of forms and functions make historical reconstruction a challenge, and a full analysis is beyond the scope of this chapter. Considering the available evidence – including /a/ forms for both past and non-past in wider Niger-Congo – and what is known about trends in language change, Nurse concludes that -*a*- markers most likely descended from more than one Proto-Bantu ancestor, a theory that he suggests may even provide a partial account of the development of tense in Bantu, in contrast to its aspect-based Niger-Congo cousins:

> ...*a* with a range of reference, past and non-past, can [surely] be found across Niger-Congo outside Bantu.

> This suggests that more than one *a, most likely short-vowelled, tones uncertain but surely contrastive, can be reconstructed for Proto-Bantu, one with past, the other with focus reference, but possibly with tonal and semantic variation. Since most non-Bantu Niger-Congo languages are aspect, not tense, languages, it seems likely that as past tense reference burgeoned in Proto- or early Bantu, one if its vehicles was a multiplication of the original *a (Nurse 2008:240).

Nurse (2008) proposes that -*a*- already marked past tense in Proto-Bantu. Schadeberg (2003:151) also lists two reconstructed tense markers *-*à*- and *-*á*-, both apparently referring

to past time. Nurse suggests that phonological processes such as post-glide lengthening could have resulted in allomorphy and, eventually, independent meanings for various -*a*- forms (Nurse 2008:238-239). If tense indeed existed at a Proto-Bantu stage – as seems likely, given the ubiquity of tense-marking across Bantu – and -*a*- (a past tense marker in 59% of the languages surveyed in Nurse 2008:82) is a PB tense marker, then anterior -*a*- (found in 19% of Nurse's survey languages (Nurse 2008:156))[26] requires explanation: Cross-linguistically, anteriors are known to become simple pasts, but the reverse is virtually unattested (Dahl 1985; Bybee *et al.* 1994; Nurse 2008).

Also needing explanation is the use of -*a*- with present meaning in many languages. Although grammaticalization studies "standardly show [anteriors] becoming perfectives and pasts", -*a*- forms also occur "in a not inconsiderable set of languages" as presents or futures. "This involves a semantic shift not often mentioned in the general literature"(Nurse 2008:163).

Based on observed grammaticalization patterns, and confirmed with quantitative analysis of other kinds of evidence of grammaticalization stage, Bybee *et al.* (1994) assign "Perfages" according to stage in the grammaticalization path from completive ("Perfage 1", the "youngest", i.e. most recently grammaticalized)[27] to simple past ("Perfage 5", the "oldest" and furthest along the grammaticalization path), as listed in table Perfages.

Perfage 1	completives
Perfage 2	young anteriors
Perfage 3	old anteriors
Perfage 4	perfectives
Perfage 5	simple pasts

Table 3.7: Perfages: (Bybee *et al.* 1994:105)

If -*a*- marked tense at a Proto-Bantu stage, then the anterior meanings found in some Bantu languages today reflect backward steps along the grammaticalization pathway, and the present meanings would be inexplicable.

Nurse (2008:237-240) offers various solutions to the puzzle, ultimately positing more than one -*a*- marker in Proto Bantu, one marking past, the other focus. Combinations of these and other morphemes could result in the variety of -*a*- forms and meanings today. Far more data are needed to make claims about Proto Bantu and -*a*-'s developments. I will note only that if, instead of reconstructing a past tense -*a*- for Proto-Bantu, "completive" or "culmination" semantics were proposed, along with a change-of-state vs. non-change-of-state distinction in

---

[26]The 19% figure is for anteriors with both an -*a*- verbal marker and final vowel -*a*; anteriors with -*a*...-*ile* are also common (14%), as are -∅...-*ile* anteriors (29%) (Nurse 2008:156).

[27]COMPLETIVE in Bybee *et al.* (1994:34) indicates that "something is done thoroughly and completely, totally affecting the object". Nurse operates with a similar definition. Bybee *et al.*'s definition is not necessarily incompatible with the notion of completion used in this chapter, which defines more precisely how completion is treated within Totela.

verbs, the pathways of development from -*a*- to pasts, anteriors, perfectives, and presents, might all fall in line with the cross-linguistic generalizations in table 3.7.

It is worth noting that Totela is not unique in its attention to situation completion or culmination. Kershner (2002) reports similar reference to completion in Chisukwa (M.202, Malawi), although the tense/aspect morphemes involved differ. Lusaamia (JE.34) and Luwanga (JE.32), discussed in 3.2.3, also have a marker -*ire* that pays crucial attention to nuclear completion (Botne 2010). 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. The stability of the categories, despite constantly evolving means of morphological expression, suggests that the notion of nucleus completion is basic to Bantu tense and aspect; this is likely closely related to the prevalence of change-of-state verbs.

In any case, the Bantu situation is complex. Even the segmentally identical -*a*- markers in Totela and its close relatives Ila and Tonga (see 3.4.1 below) – although all have a flavor of hodiernality – have varying functions, interactions with situation type, and co-occurrence possibilities with various aspectual markers. As elsewhere in Bantu (see e.g. Nurse 2008), there is a fair amount of volatility in the semantic and pragmatic development of TAM markers. What they all appear to have in common is varying interpretations of past, present, or future according to situation type and context. The Ila and Tonga forms, and the puzzles they pose, are discussed briefly in the next sections.

3.4.1   -*a*- in related languages

3.4.1.1   Tonga (M.64)

Hopgood (1940:7) labels Tonga -*a*- as "tense" but gives it a definition matching that typically given for the perfect/anterior:

> This commonly denotes an action completed but with a definite bearing on the present. If for example I ask "Where is So-and-so?" the answer may be *Waya*, i.e. He has gone, he is no longer here (Hopgood 1940:7).

Tonga -*a*-has temporal interpretations common for Bantu anteriors: present with change-of-state verbs (158)–(159) and most stative-like verbs (160)–(161); and past (with present relevance) otherwise (162). Note that more frequently than in Totela, -*a*- is used with statives and perception verbs with a present-state meaning: *nda̱bona* (in Totela, typically 'I saw/I have seen') means both 'I have seen' and 'I see' (Hopgood 1940:11).[28]

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[28]Although the present stative reading is obtainable with state verbs in Totela, as in 114) and (115), when the state is viewed as inceptive/expressing a change, other forms such as -*ite* and -*la*- are more commonly used when expressing present statives. Examples in Hopgood (1940) show that this is at least sometimes the case in Tonga, as well. For example, 'my head hurts' is *mutwe ula̱cisa*, with present-tense marking.

(158)   bu-ta bwa-ngu bwa-bola
       bow of-me   it-rot

       'my bow is rotten' (Hopgood 1940:16)[29]

(159)   in-kuku ya-kwe ya-kumba
       fowl   of-him it-sit/brood

       'his fowl is sitting' (Hopgood 1940:23)

(160)   ma!   wa̱-lema   mu-kuli
       mother! it-is-heavy load

       'good gracious! the load is heavy' (Hopgood 1940:9)

(161)   mwa̱-bonwa ba-kwesu. Ee, twa̱-bonwa
       you-are-seen clansmen, Yes we-are-seen

       'You are seen, brothers. Yes, we are seen' (common greeting) (Hopgood 1940:5)

(162)   bantu ba̱-ya   kale   ku-masuku
       people they-go already to-masuku

       'the people have already gone to gather masuku fruit' (Hopgood 1940:5)

Like in Totela, -*a*- may apparently be used in Tonga with contexts where the action is as good as finished:

(163)   *sena ulya̱ya kukusakwida zipopwe? ee,* **nda̱ya**
       'are you going to weed the maize? yes, **I am going**' Hopgood (1940:69-73, *translation exercise*)[30]

3.4.1.2   Ila (M.63)

Both Smith (1964) and Fowler (2000) label Ila -*a*- the "aorist". Smith (1964) notes that

> . . . in Ila it does not always denote what is absolutely past. In fact, with slight changes in accent, it may express anything, past, present, or future.
>
> 1. It sometimes answers to the English perfect, expressing an action accomplished, thus: Wa ya, he has gone, i.e. and is still away.
>
> 2. Hence it is commonly used with a present meaning. Nda̱ bona, I see.
>
> 3. It is used as a historical past and in narratives follows the preterite or imperfect; e.g. Nda̱ ka̱ mu funa, nda̱ mu yovwa, I loved him, I helped him.

---

[29]Glosses are given as in Hopgood (1940).

[30]It may be meaningful that all of the typical examples of "as-good-as-finished" -*a*- constructions involve motion verbs of coming or going. It may be possible that verbs in this case have an inceptive reading, i.e. the process of coming or going has been put into motion and is inexorably heading toward completion. This possibility is discussed with regard to Totela in 3.2.5. In Kwanyama (R.21) similar uses with 'go' and 'come' are common (personal fieldnotes). Further study of this topic may prove fruitful.

4. With a slight change in accent, it has a future meaning: Nd<u>a</u> ya, I am going, or I will go. The explanation of this usage seems to be that the action though not yet accomplished in fact is accomplished in thought.

<div align="right">(Smith 1964:151)</div>

Data from Yukawa (1987)[31] suggest that Smith's "slight changes in accent" may actually be tonal differences. The example in (164b) is analyzed by Yukawa as a contraction of the 1SG subject marker *nda-* (more likely *ndi-* and the TAM marker *-la-* (Yukawa 1987:202).[32] Whether the possibility of present interpretation holds for other subjects is not clear from Smith (1964), although examples in Fowler (2000), as in (165), suggest that it is not only the 1SG marker with such interpretation with *-a-*. More tonal and semantic data are needed.

(164) a. P$_1$:
        nd-<u>a</u>-p-â
        'I gave' (Yukawa 1987:201)
       b. Present/hodiernal future:
        nd-<u>a</u>-p-á
        'I give, am giving, will give' (Yukawa 1987:202)

Unfortunately for the present purposes, Yukawa (1987) is a tonal study; examples are out of context with little or no semantic information, so the meanings noted here may not represent the full interpretive possibilities of the forms.

Fowler (2000) gives examples with the various meanings alluded to by Smith (1964):

(165) a. Present simple:
        w<u>a</u>bona!
        'you **see**!'
       b. Present continuous:
        w<u>a</u>ceensya wezu akaka, imbo mbubazyana
        'this fellow, he **is exaggerating**, that is not the way they dance'
       c. Perfect:
        w<u>a</u>bona mapopwe?
        '**have** you **seen** the maize?'
       d. Preterite:
        w<u>a</u>ceensya
        'he **exaggerated**'
       e. Imperfect:
        nd<u>a</u>fwa compankowe…ndina ukwaamba
        'I **was dying** of shyness…I didn't say a word.'

<div align="right">(Fowler 2000:854, labels and translations as given)</div>

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[31]Also summarized in Nurse 2008, *Appendix 1*, pp. 252-254.
[32]See chapter 4 for more details on the *-la-* marker.)

In Ila, -*a*- can combine with persistive -*chi*- (Smith 1964), an apparently illicit combination in Totela. It also co-occurs with imperfective prefix -*aku*- (Nurse 2008:*Appendix 1*, p. 252, based on Yukawa 1987), as in *tu-**a-ákú**-p-a* 'we were giving', while Totela -*a*- is incompatible with imperfective semantics.

The very limited data suggest two possible analyses of Ila -*a*-. First, it may be noted that with the exception of the forms noted in Nurse (2008), the Ila data are compatible with the completion analysis proposed for Totela. The present readings (with the exception of (165b)) are with state verbs, where, as proposed for Tonga, an inchoative reading seems likely. It may be, then, that both Tonga and Ila are more frequently flexible than Totela with regard to the situation types of state verbs such as -*bona* 'see'. Alternatively, there may be two -*a*- forms in Ila, one present and one past/completive, distinguished by tone.

However, the data given by Yukawa must still be accounted for. Ila -*a*-'s compatibility with imperfective markers would seem to indicate that it functions in those contexts as a simple (hodiernal) past. Thus, -*a*- may be a simple/hodiernal past marker unspecified for aspect, with the non-past examples in table 165 taking different tone patterns, as in (164). Following the progression proposed by Bybee *et al.* (1994) and given in table 3.7, a development from completive to anterior to simple past is expected. Still, the origins and semantics of the near-homophonous present/future -*a*- marker would require explanation in this case.[33]

Although the data available are not sufficient for drawing strong conclusions, it is clear that -*a*- has complex functions in Totela, Tonga, and Ila and deserves further study in Tonga and Ila – and across Bantu – especially with regard to situation-type interactions.

3.5   Conclusion

I have argued that -*a*- marks a situation as "complete" with respect to perspective time in current domain of context. Completion is defined with respect to situation type; for change-of-state verbs, nuclear completion occurs at the point of "complete" entry into the described state. Although at first glance, -*a*- appears to be a hodiernal past/anterior marker, these labels do not fully capture the marker's uses and interactions with situation type. In narratives, -*a*- appears most frequently in resumptive temporal clauses, recounting completed events with respect to story-world time, and at the beginning of episodes within the narratives, also signaling completion of previous episodes and the start of a new scene.

Comparison with similar markers Bantu-wide and even in closely-related Zambian languages reveals that the story of -*a*-'s development requires much further work before it can be unraveled. In any case, Totela data, along with results in Kershner (2002), indicate that more attention should be paid to change-of-state verbs and the notion of "completion" in Bantu.

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[33]Nurse (2008:*Appendix 1*, p. 253, based on Yukawa 1987) also notes a third tonally-distinct form nd-á-pâ, 'when I give', which may possibly reflect an "underlying" prefix *ni*- 'when'.

Chapter 4

Semantics and Pragmatics of Non-Completion

4.1 Introduction

In chapter 3, post-SM -*a*- is analyzed as a completive marker, where completion is defined with respect to a situation's nucleus. Marking with -*a*- does not change the current discourse domain, and as a result, the default interpretation is hodiernal past (or present stative).

This chapter discusses Totela "present tense" forms (-*la*- and -*Ø*- marked verbs), which can have generic (habitual or gnomic), progressive (or present stative), and (usually hodiernal) future readings. I argue that these forms are best analyzed as NON-COMPLETIVES, where the completion of a situation's nuclear phase is in the future with respect to the time of perspective. Because the forms are also unmarked for domain, they occur in more-or-less complementary distribution to completive -*a*-.

Recall the possible temporal readings introduced for -*a*- and -*la*- noted in chapter 3, repeated here: With durative verbs, -*a*- generally evokes a past-tense reading, as with (166a) below. However, with change-of-state verbs, -*a*- can have either a present stative or a past reading (166b). Conversely, Totela -*la*- has possible readings of generic, progressive (or stative), and future with most predicates as in (167a), although it typically cannot have a present stative reading with change-of-state verbs, but instead has a future inchoative reading (167b).[1]

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[1] A habitual reading is possible with -*la*- and change-of-state verbs, as in (1). However, these readings are still inchoative in nature.

  (1) *ìnàkó nènàkò ésì tùlyá àhúlù* **tùlékùtà**

      inako   na=inako   esi   tu-li-a   ahulu **tu-la-ikut-a**
      CL9.time COM=CL9.food COND 1PL-eat-FV much 1PL-<u>NONCMPL</u>-become.full-FV

      '. . . whenever we eat a lot we get full' (ZT2009Elic40)

(166)

	DURATIVE		CHANGE-OF-STATE
a.	ndá-yènd-à	b.	ndá-kòmòk-w-à
	1SG.CMPL-walk-FV		1SG.CMPL-surprise-PASS-FV
	'I walked'		*Possibility 1: 'I am surprised'*
			Possibility 2: 'I got surprised'
			(earlier today)

(167)

a.	ndì-là-yènd-à	b.	ndì-lá-kòmòk-w-à
	1SG-NONCMPL-walk-FV		1SG-NONCMPL-surprise-PASS-FV
	Possibility 1: 'I am walking'		*'I will be surprised'*
	Possibility 2: 'I will walk'		
	Possibility 3: 'I walk' (regularly)		

This chapter begins with a brief cross-linguistic overview of analytical and descriptive problems in the analysis of present and "non-past" forms (4.2). These include the typical multiplicity of possible temporal meanings, and whether the unmarked present makes any specific semantic contributions. Also discussed are tense, aspect, mood, and situation type interactions typical categories expressing present meanings.

The next section (4.3) presents the two simple forms used to express present meaning in Totela, unmarked forms and post-SM -*la*-. I show that both function semantically as "non-completives", operating in contrast to "completive" -*a*-. This analysis explains their range of temporal interpretations (4.3.2-4.3.4) and their interactions with situation type (4.3.6) and aspect (4.3.5).

Section 4.3.7 argues that while completive -*a*- (see chapter 3) contrasts with the non-completive forms discussed in this chapter, the markers are alike in their lack of reference to domain. Instead of explicitly marking domain, all retain the domain currently evoked in discourse. In this, they stand in contrast to the dissociative forms discussed in chapter 5.

Section 4.3.8 deals with questions of markedness and the difference between -*la*- and -Ø- forms. While there is some overlap in the use of -*la*- and -Ø- forms, the null-marked form has more semantic restrictions (it must occur with a following constituent) and appears to be increasingly relegated to non-main-clauses. The -*la*- form is clearly related to markers of "disjunctive" (verbal) focus (see e.g. Hyman & Watters 1984; Güldemann 2003), but seems to be evolving into a more general present/non-past marker. I argue that because -*la*- did not originate as a temporal marker, it does not contrast temporally with the null-marked form. Instead, both are interpreted as non-completives because they are unmarked for completion. If, as seems to be the trend, -*la*- becomes the default marker in main-clause non-completives, it may be fully reinterpreted as an overt marker of non-completion.

While the expression of non-completion gives rise to a number of temporal effects in everyday discourse, its pragmatic effects are particularly evident in its use in narratives.

These are discussed in section 4.4, which begins with a general discussion of how the present is used cross-linguistically in narratives, which are typically about the past (4.4.1) before discussing how these forms are used to structure Totela narratives in particular (4.4.2). Here, again, they stand in contrast to completive -*a*-. While -*a*- is used primarily to partition the text into episodes (see 3.3), non-completive forms are used to pace the narratives, stress continuity, and provoke listener empathy and participation.

The chapter ends with a discussion of the -*la*- marker within Bantu (4.5) and in Totela's closest relatives. In some of these languages, -*la*- still retains strong characteristics of verbal focus, while in others, it seems to be "purely" a tense or aspect marker. Examining its behavior across these languages can further inform theories of grammaticalization pathways such as those proposed by Güldemann (1996, 2003) and Nurse (2008).

4.2 Analytical challenges of the "present tense"

Forms typically analyzed as "presents" or "non-pasts" – though often morphologically unmarked and expressing what would seem to be the most basic content, utterances about the here and now – in fact pose a number of analytical challenges, including even whether these may be properly referred to as "tenses".

If, as Klein (1994) argues, tense encodes the deictic relationship between time of utterance (or contextually salient perspective time) and the "topic time" (TT) referred to by the utterance, the expected interpretation of present tense is "topic time includes perspective time". In the default case, then, present tense refers to the time of utterance; it talks about what is going on now. However, even the briefest cross-linguistic survey presents challenges for this seemingly straightforward view.

For example, Binnick (1991) notes that the English "Simple Present" has at least the following functions:[2]

(168)   Uses of the English Present (examples based on Binnick 1991:247)

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[2]Other authors have different labels and categorizations for the uses given in (168), and the particular labels are less important than the general point that the English Present has a multiplicity of uses and interpretations. The terms in (168) are not crucial for the analysis of Totela -*la*- and are not used in the rest of this chapter; instead, more general terms are employed. For definitions and tests of the categories as used by Binnick, see Binnick (1991:247ff).

1.	FUTURATE	Steve's new album **comes out** next month.
2.	HISTORICAL	John Hancock **signs** the document.
		Then I **say**, "You're nuts!" And the guy just **laughs**!
3.	STATIVE	John **loves** mushrooms!
		Our cat Izzy **tends** to stand on people's stomachs.
4.	FREQUENTATIVE/	Ryan **watches** bad movies.
	HABITUAL	
5.	REPORTATIVE	Encyclopedia Jones **solves** a mystery.
		Scotto **steals** second base!
		The lead players **bow**.
6.	INDEFINITE	He **plays** oboe.
		Wendy **drives** delivery trucks.
7.	GNOMIC	Yellow and blue **make** green.
8.	DESCRIPTIVE	Dolphins **live** in the ocean.
9.	PERFORMATIVE	I **name** you Nanghelo.
		I now **pronounce** you husband and wife.
		I **concur**.

On the other hand, the English Simple Present prohibits a continuous (progressive) reading of non-stative predicates:

(169)   a. **Stative predicate**:
        John loves mushrooms.
      b. **Non-stative predicate**:
        *John plays the banjo right now.

Other languages, of course, slice up the range of "present" meanings differently. In German, for example, the *Präsens* (Simple Present) is regularly used to refer both to the present and the future (170), and has no such stativity restriction (171).

(170)   *Wir gehen ins Kino.*

        wir geh-en   in-s   Kino
        1PL go-1PL.PRÄS   to-the cinema

        'we're going to the cinema' (now or later on)

(171)   a. **Stative predicate**:
        Alex kennt Susanne.

        Alex kenn-t   Susanne
        Alex know-3SG.PRÄS   Susanne
        'Alex knows Susanne'

b. **Non-stative predicate**:

Was macht Alex gerade? Er spielt Klavier.

was mach-t   Alex gerade? er spiel-t   Klavier
what do-3SG.PRÄS Alex right.now 3SG play-3SG.PRÄS piano

'What is Alex doing now? He's playing the piano"

As is evident from this sample of just two closely related languages, the so-called "present" tense may have quite different usage domains and restrictions from language to language. The remainder of this section surveys some of the more influential of the myriad approaches to the problems that arise in the analysis of the present, and particularly to dealing with its (cross-linguistically common) multi-functionality.

4.2.1   Temporal interpretations of the present

One important question in many languages is whether present-tense forms, when analyzed for their tense properties, should be considered truly "present", or whether they are better analyzed as non-pasts, including both the present and the future. In some languages, including English, the answer is not immediately apparent, due to co-occurrence and interpretive restrictions for both present and futurate uses. Analyses along both lines – i.e. true present and non-past – have been proposed for English and other languages; some of these are discussed in this section.

For example, the English Present (both Simple and Present Progressive) may be analyzed as a "true" present or as a non-past. A proponent of the latter analysis is Binnick (1991). He argues that the present and futurate meanings of the Simple and Progressive Present are the same, as shown by the possibility of deletion under identity, as in (172). Example (173) shows that a similar sentence is not felicitous when past tense is used.

(172)   We're eating figs right now, and plums later on.

(173)   #We ate figs just now and plums later today.

Binnick (1991) takes this apparent identity of meaning[3] as evidence that the English Present (including the Present Progressive) contrasts merely with a specified past, rather than being part of a ternary past-present-future system. (Explanations of past readings are discussed below.)

Klein (1994), in contrast, argues for a literal present meaning in English – i.e. utterance time included in topic time – and explains the seemingly anomalous uses as the speaker's choice of a "very long" topic time,[4] or that the relevant situation time (in which TT is fully

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[3]In fact, with this kind of sentence, it is difficult for the present author to get anything other than a futurate reading for both clauses, i.e. 'right now we're about to eat figs, and later we'll eat plums'. A true present reading for the first clause seems somehow infelicitous.

[4]This view of topic time is somewhat reminiscent of McCoard (1978)'s EXTENDED NOW, but apparently extending both forwards and backwards in time from the time of ttterance. The Extended Now in McCoard (1978) only extends backwards in time (see also Portner 2003).

or partially included) is not the time that the situation *actually* obtains, but the time at which it is *imagined* to obtain.

For German, however, Klein posits a non-past meaning. As noted above, the German tense traditionaly labeled *Präsens* is used both for ongoing situations and situations that will commence in the future. However, there is also a periphrastic future with the auxiliary *werden* 'become' (*Futur I*). Because this (like English *will*) is often used modally rather than temporally, some have argued that its meaning is primarily modal. Klein (1994:127) counters with the following sentence:

(174)   *Er spielt nicht, wird aber spielen*

Er   **spiel-t**   nicht, **wird**   aber **spiel-en**
3SG.MASC play-3SG.PRÄS not   FUT.I.3SG but   play-INF

'he is not playing[PRÄS] but will be playing[FUT.I]' (or 'will play [FUT.I]')

Based on this example, Klein argues that *Präsens* indicates that topic time includes or follows the time of utterance, while *Futur I* (in its non-modal reading) specifies that topic time follows utterance time. When they are contrasted as in (174), Gricean principals of informativeness dictate a true present-tense interpretation of the *Präsens*.

Like Klein, Langacker (2001) argues for a "true" present analysis of the English Present. Langacker's arguments are based in a cognitive grammar framework, in which two types of verbs that he labels "perfective" and "imperfective" – basically corresponding to non-stative and stative verbs, respectively – are represented similarly to count and mass nouns. "Perfective" (i.e. non-stative) verbs are inherently bounded (either by telicity or with purely temporal boundaries) and occur within the "immediate scope" of the temporal domain, which appears to correspond roughly to Klein's Topic Time. "Imperfective" (i.e. stative) verbs, on the other hand, are not construed as bounded and the immediate scope contains only a portion of the unbounded whole. Further, the subinterval property dictates, in Langacker's words, that "any subpart of an imperfective process [will] itself be a valid instance of the imperfective process category" (Langacker 2001:258)).

In the present tense, the temporal domain's immediate scope coincides precisely with the near-instantaneous moment of speech. Since most "perfective" situations cannot occur fully within that time span, "perfective" presents are generally infelicitous. However, "imperfective" presents are fully felicitous because of the subinterval property: the "imperfective" verb may also be said to be true within the immediate scope, the moment of speech.

Langacker also points to the general and well-known infelicity of the English present with future events that cannot be anticipated or "scheduled" by the speaker (see e.g. Bybee *et al.* 1994:249; Langacker 2001:267), as shown by the contrast in (175):

(175)   a. Cal plays Stanford next week.
        b. #Cal wins over Stanford next week.

This restriction, argues Langacker, shows that the futurate readings of the present tense are not basic. He argues that futurate, historical, and habitual/gnomic uses of the present

all require a virtual, fictive reading. This may take the form of a virtual schedule (futurate); a "replay" (Langacker 2001:269) or other evocation of a past occurrence (historical pasts, descriptions of pictures); or "virtual instances of the process types in question, conjured up to express generalizations about the world's structure" (habituals, generics, and expressions of "timeless truth") (Langacker 2001:270).

Klein (1994) does not discuss futurate readings of the English Simple Present and Present Progressive.

In Totela, *-la-* and *-Ø-* forms also have both present and futurate readings in default contexts. These readings are discussed and analyzed in 4.3.2. However, the Totela forms differ from English in several important ways. First, there is no other dedicated hodiernal future form in Zambian Totela.[5] It may therefore be expected that *-la-* and *-Ø-* cover both meanings. Second, contrasting with English (in (175b) and (176)), there is no clear scheduling or certain knowledge requirement for futurate readings with *-la-* in Totela, as in (177).

(176)   #Do you think it rains/it's raining (later on)?

(177)   a. *ulanahana okuti ilasoka?*
            u-la-nahan-a   okuti i-la-sok-a?
            2SG-NONCMPL-think-FV that   CL9-NONCMPL-rain-FV

            'do you think it's going to rain?' (ZT2006Elic55)

        b. *imvula ilasoka*
            imvula   i-la-soka
            CL9.rain CL9-NONCMPL-rain-FV

            'it's going to rain' (ZT2006Elic55)

These facts would seem to point to a non-past analysis of *-la-* and *-Ø-*. However, the Totela forms stand in contrast not to a past form, but, I argue, to *-a-*, analyzed in the previous chapter as a marker of nuclear completion. *-la-* and *-Ø-* indicate non-completion of a situation nucleus, which is equivalent to the end of the event in non-change-of-state verbs, and to the point of "complete" state change in change-of-state verbs. As presents in other languages also show significant interactions with both aspect and situation type, the privileged status of nuclear completion may be related to the importance of the change-of-state vs. durative distinction in Totela and many other Bantu languages. Cross-linguistic interactions of the present with aspect and situation type are discussed in the next section.

First, though, before leaving the interactions of tense and the "present", the possibility of *past* time readings should also be noted. These are problematic for both true present and non-past analyses, neither of which predicts past readings. According to Binnick (1991), past readings of (e.g.) the English Present (e.g. historical present) are made by shifting, via

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[5]In Namibian Totela, there is a subjunctive hodiernal future form, although the regular, unmarked present form may also be used for hodiernal futures. The posthodiernal future in Namibian Totela is also obligatorily subjunctive, unlike in Zambian Totela.

an unspecified mechanism, the reference time (Klein's Topic Time) to the past: "the actual position of the reference time is treated not as prior to the time of the speech act, but *as if it were* at that time"[6] (Binnick 1991:249, emphasis added).

Klein (1994) also deals with "atypical" uses of the present by appealing to fictivity. He argues that the English Present always means that the utterance time is included in topic time; in the atypical uses, the topic time is related "to the time at which the situation described by the lexical content is IMAGINED" – i.e., at utterance time (Klein 1994:139). Some uses of the Simple Present and Present Progressive that Klein explains by this mechanism are given in (178). These possibilities and others are found variously with present tenses in other languages, as well.

(178) Some "atypical" uses of present (labels taken from Klein 1994:134-136)

1.	NARRATIVE PRESENT	...Suddenly, the door slams open.
2.	TIME TRAVEL	It's the year 2050. Everyone travels on flying skateboards.
3.	IMAGINE PREFIXING	Imagine you're in a quiet, calm place. A butterfly lands on your shoulder.
4.	FACT LISTING	In 1900, Arthur Conan Doyle surprises the world with a new Sherlock Holmes mystery.
5.	RETELLING	In chapter 14, Dumbledore and Hagrid are taken away from Hogwarts.
6.	PICTURED PAST	This is us at Yosemite. We're so happy. We're hiking past some waterfalls. We're soaking wet.

Klein argues that all of these readings are neatly explained by his theory. Other explanations, such as an ambiguous semantics for the present, he rejects as nonexplanatory. Accounts such as those of Kratzer (1978) (cited in Klein 1994:137), which posit a "time which COUNTS as utterance time" – i.e. a time with which the topic time coincides – seem inadequate to explain "fact listing" examples, as these are obviously "retrospective" in nature. Even the narrative present examples, Klein continues, are either "vacuous or false" (1994:137: it does not do more than state that the "time which counts as utterance time" is a "time which is taken instead. Thus, argues Klein, a fictive account is the most comprehensive and unified explanation. Perspective time does not shift; instead, the speaker is imagining the content described while making the utterance, and thus employs present tense (Klein 1994:137-141). For example, the speaker retelling the Harry Potter story is imagining the book's content as she gives her report.[7] Klein's approach, however, has seemingly little to say with regard to tense switching.

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[6]That is, as if the position of the reference time were at the time of the speech act.

[7]Klein also suggests another possible analysis for "fact listing" uses. Here, instead of shifting perspective time, the speaker, in an "authoritative" tone, is choosing a topic time that is very long (possibly even all-encompassing) and includes both the situation time and the utterance time, despite the century between them.

Others (e.g Bybee *et al.* 1994), in contrast, argue that non-present readings – both past and future – are possible with the present precisely because of its weak semantics. Under this view, the present category has a (near) complete lack of semantic specification, linked to the common lack of morphological marking in expressing this category. That is, the present – at least the unmarked present – is not a tense at all, but rather an empty category that is most often interpreted as present because that is the default in the absence of specified past or future marking or context. Because Totela verbs unmarked for tense and aspect also have virtually all of the readings available for *-la-*, I return to issues of markedness in 4.3.8. First, however, I discuss interactions of tense, aspect, mood, and situation type with "present" forms.

4.2.2 Interactions of the present with situation type and aspect

As hinted throughout the previous sections, forms that encode the present have significant interactions with both aspect and situation type in Totela and many other languages. Some of these are surveyed in this section. As above, many examples are given in English, as an easy way to introduce the issues.

As noted above, the English Simple Present is infelicitous with non-habitual non-statives, as seen in (179), repeated from (169).

(179)   a. **Stative predicate**:
             John loves mushrooms.

         b. **Non-stative predicate**:
             *John plays the banjo right now.

Michaelis (2006) offers a seemingly language-independent explanation: the present is a "state selector" (Michaelis 2006:231). Specifically, it selects for statives. When the situation type of the verb constellation is stative, a true present reading is obtained, as in (180).

(180)   Carrie knows the answer.

When the situation type is non-stative, the English Present acts as an aspectual type-shifter: "it must find a state within the semantic representation of the tenseless proposition with which it combines" (Michaelis 2006:234). Michaelis characterizes the non-stative "states" selected by the Present as "periods of stasis, or, equivalently, RESTS, which hold between adjacent subevents" (Michaelis 2006:234). When non-statives are represented as states, they receive interpretations as habitual/gnomic (selecting the rest between occurrences), as in (181a), or futurate (selecting the state or rest "that lasted until the event" (Michaelis 2006:234)), as in (181b).

(181)   a. **Non-stative predicate as habitual**:
             John plays the banjo every day.

         b. **Non-stative predicate as futurate**:
             John leaves for Texas this Tuesday.

Michaelis further notes that languages may vary as to the particular state selected by the present. This allows for a progressive reading in many languages, since the progressive may also be considered a state Despite possible differences in state selection, Michaelis argues that "the aspectual-selection properties" are cross-linguistically invariant (Michaelis 2006:234). Totela, where change-of-state verbs select the phase *prior* to the resultant state (recall (167) above), either provides a counter-example to this claim, or it is not a true "present" under Michaelis' analysis.[8] Since this debate could quickly become definitional, I will not treat it at length here. There does not appear to be any restriction of *-la-* to stative predicates. Interactions of *-la-* (and unmarked verbs) with situation type are related to the situation's event structure, and not to stativity. They are discussed in greater detail in 4.3.6 below.

Present forms interact significantly with aspect as well as situation type, and analyses must draw conclusions about what – if any – aspectual contributions they make. Just as the present (especially when unmarked morphologically) is often analyzed as un- or underspecified for tense, some analyses treat it as unspecified for aspect; others conceive it as inherently imperfective. Proponents of the present's imperfectivity point to its typical interpretive possibilities: In many languages, including Totela, present forms can have progressive readings, as well as habitual and gnomic readings. Arguments for aspectual underspecification, on the other hand, note that typical analyses of imperfective aspect (e.g. topic time fully included in the situation time, as in Klein 1994) clash with futurate readings.

Comrie (1976) assumes aspectual underspecification, claiming that in many languages, at least, the perfective-imperfective distinction is only seen in the past tense; Comrie's proposed system is schematized by Dahl as in figure 4.1.

	PFV	IPFV
PAST	Past Perfective ("Aorist")	Past Imperfective ("Imperfect")
PRESENT	Present	

Figure 4.1: The tripartite system of Comrie (1976), adapted from Dahl (1985:82)

An example of a language-specific analysis appealing to aspectual underspecification is found in Klein (1994), who argues that the German *Präsens* is unspecified aspectually, and that the lack of aspectual specification is what allows for the present and future readings discussed above. Rather than aspect, Klein argues, typical interpretations are driven by situation type. ONE-STATE situations (stage-level states and activities) typically have a present meaning ('Hans is sleeping'), while TWO-STATE situations are more often futurate ('Hans will come'). Klein explains this by positing that the *Präsens* may project topic time into the single state of one-state situations ('Hans is sleeping'), and the "source" state of

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[8]The *-li-* marker, transparently related to *-li* 'be' and co-occurring with stativizer *-ite* (see chapter 6) is a better candidate for Michaelis' state selector. *-la-* seems almost to be a "change selector", selecting the phase before the rest state. However, *-la-* may co-occur with true statives.

two-state situations, which are made up of source and "target" states. When topic time is located in the source state by the *Präsens*, the target state is in the future, although the source state has already commenced at topic time ('Hans is coming'); this corresponds to imperfective aspect. The *Präsens* may also project topic time onto both the source and target states of two-state situations ('Hans will come'), and onto the single state and post-state of one-state situations ('Hans will sleep'), giving a futurate reading. This corresponds to a perfective interpretation, according to Klein (1994:127-128).

Others portray the present as having inherent imperfective aspect. For example, Bybee *et al.* (1994) – who describe the present as semantically empty – note the theoretical difficulty of classing "the so-called present tense as a 'tense', that is, as having to do primarily with deictic temporal reference." Instead, "present covers . . . various types of imperfective situations with the moment of speech as the reference point" Bybee *et al.* (1994:126).

Dahl (1985:81-83) offers a similar analysis, based on the observation that it appears to be most common for languages to have specific past-tense marking only with the imperfective aspect. Perfective-marked verbs are automatically restricted to the past without any overt past-tense marking.[9] These trends lead Dahl to create the schema shown in figure 4.2.
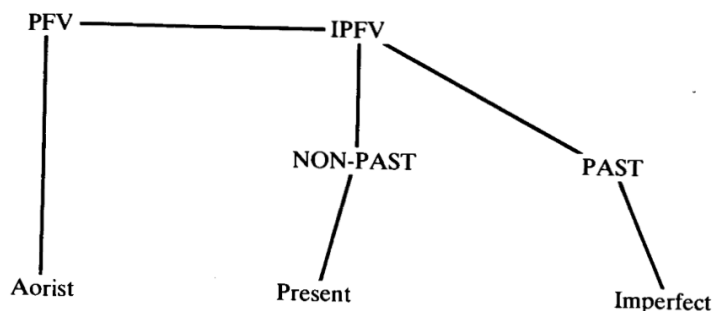
Figure 4.2: Dahl's perfective and imperfective taxonomy (figure from Dahl 1985:82)

Note that in Dahl's schema in figure 4.2, in contrast to the tripartite system shown in figure 4.1, past and present (or non-past) are not a primary contrast, but contrast only within imperfective aspect.

Smith (1997) takes a different approach, proposing that many presents unmarked for aspect (e.g. in French and Chinese) encode what she calls NEUTRAL ASPECT. While perfective aspect focuses both endpoints of a situation, and imperfective focuses neither, neutral viewpoint contains the *onset* and *at least one internal stage* of a situation.

Smith claims neutral aspect for a number of tenses, not just present, and illustrates her argument with examples such as (182). The French *Futur*, can have both "open" (the

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[9]Dahl also discusses the case of Greek, where "aorist" and imperfective pasts have the same past-tense marking, in addition to their aspectual specifications. Even in this system, though, the (indicative, aorist) perfective can only occur with past reference. Languages where perfective aspect has no corresponding tense restriction are presumably much rarer (Dahl 1985:83).

situation in the temporal clause is ongoing when the situation in the main clause transpires) and "closed" (the situation in the temporal clause commences at the time of the main clause situation).

(182) Jean chantera quand Marie entera dans le bureau
       Jean will sing[FUT] when Marie will enter[FUT] the office
       (Smith 1997:78, ex. 35)

Based on these and other examples from various languages, Smith posits that the neutral viewpoint includes the onset and (at least) one internal stage (represented by the dot). "Closed readings" are allowed "by inference" (Smith 1997:81).

The Totela "present" or "non-past" forms discussed in this chapter should not be analyzed as having neutral aspect: as I will argue below, the onset of the situation is not referenced by -la- or -Ø- forms.

As noted in chapter 3, at least some Niger-Congo languages, which do not obligatorily inflect for tense, employ perfective aspect to express present states; the imperfective is used for non-stative presents. Such is the case for Badiaranke, an Atlantic Niger-Congo language of West Africa. The Badiaranke Perfective is used for past events and present states. Among other uses, the imperfective is used for progressive/continuous, habitual, and future situations (Cover 2010:69).

PERFECTIVE	• Past event with respect to perspective time • State simultaneous with perspective time
IMPERFECTIVE	• Progressive • Habitual • Generic • Futurate • Apodosis of counterfactual or conditional • Epistemic probability (but not certainty)

Table 4.1: Perfective and Imperfective uses in Badiaranke (Cover 2010)

Cover (2010) explains the perfective/imperfective contrast, which presents problems for typical viewpoint accounts, under a *modal* analysis. Cover claims that Badiaranke Perfective aspect asserts that a situation is true in the base world and all of its METAPHYSICAL ALTERNATIVES, i.e. worlds that are identical to the base world up to the perspective time, though they may diverge after that point. Statives are interpreted as present with the Perfective because of the subinterval property, which allows them to be fully realized at a moment. The default interpretation is thus that they hold at perspective time. The truth of non-statives (including semelfactives), in contrast, may "only be evaluated over a non-momentary interval" (Cover 2010:86), so the situations described must have culminated before perspective time when marked with the Perfective.

The Imperfective, on the other hand, asserts that the situation referred to is true "in all the best possible worlds" given a contextually-determined modal base and ordering source.

The choice of modal base and ordering source determines the temporal interpretation associated with Imperfective marking Cover (2010:91). For example, a future interpretation is accomplished by a "bouletic" or "stereotypical" ordering source, which contains situations consistent with desired or expected "normal" situations in the base world (Cover 2010:97).

Cover (2010:101) also suggests that her account might be extended to aspects like the English Progressive, which also has progressive, habitual, and futurate uses, and does not normally combine with stative predicates. However, while Totela *-la-* connotes epistemic probability and has the uses listed above for the Badiaranke Imperfective, it is also used with present states, so the Badiaranke analysis cannot account for the Totela data.

4.2.3 Summary

In summary, the "present" involves considerations of deictic tense relationships, aspect, situation type, and even modality; this is consonant with the features proposed for Botne & Kershner's (2008) domain theory, repeated here as table 4.2.

	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 4.2: Cognitive domains in Botne & Kershner (repeated)

For Botne & Kershner, the English Simple (i.e. Unmarked) Present locates the situation described in the P-domain, within which it is underspecified for temporal relationship. Thus, it may easily be used for situations in the past or future of utterance time, as in futurate and historical or narrative past readings, while retaining its connotations of (e.g.) psychological nearness.

The German system described by Klein (1994) could also fit neatly into this framework. Recall that the German *Präsens* regularly has both present and futurate readings, and that these are at least somewhat related to situation type. It thus overlaps with the functions of German *Futur*, which has either a future or an epistemic modal reading, as in (183):

(183) *Alex wird Klavier spielen*

Alex wird   Klavier spiel-en
Alex will.3SG.PRÄS piano   play-INF

a. Alex will play the piano (FUTURE READING)

b. Alex is probably playing the piano / Alex will be playing the piano (MODAL READING)

Like the English Simple Present, German *Präsens*, in proper contexts, can also be used for situations in the past. A domain-based analysis would predict these uses. Forms in the *Präsens* are included in the associative domain, but unspecified for time therein. On the other hand, *Futur* forms with *werden* are in the dissociative domain, indicating uncertain (though likely) and not yet realized (though expected) situations.[10]

In the next section (4.3), I present facts about the distribution and interpretation of -*la*- and unmarked forms in Totela. Temporally, they specify only that perspective time is located prior to the time of nuclear completion of the predicate. They are unmarked for domain, so they treat the contextually-evoked domain as the associative domain (or modal base): it is the conversationally relevant here, now, and reality. Non-completion may be exploited for a number of discourse-structuring purposes, as well, as discussed in 4.4.

4.3   -*Ø*- and -*la*-: non-completives

In this section, I argue that Totela present/hodiernal future forms are best analyzed as marking non-completion in the domain of context. In contrast to -*a*-, they mark non-completion. Like -*a*-, they make no reference to domain and therefore maintain the domain of context. As discussed in the following sections and in 4.3.8, the difference between -*Ø*- and -*la*- is conditioned by syntax and focus, and -*la*- is sometimes used as a cover term for both -*la*- and unmarked forms, which do not differ in their temporal interpretations in ways significant for this analysis.

4.3.1   Morphosyntax

4.3.1.1   -*la*-

The form dealt with in this chapter is morphologically expressed with the verbal prefix -*la*-, which occurs after the subject marker and before the verb root and any preceding object markers. It occurs only in main-clause affirmatives.[11] The -*la*- form takes H tone if the

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[10]Because Klein (1994) does not discuss the possibility (outside of e.g. "time travel" situations) of futurate readings of the English Present, it is unclear whether he would argue that the English and German systems, with their differences in aspectual specification, are distinct in this respect.

[11] While there is a general prohibition against -*la*- in subordinate clauses, it occasionally appears in the protases of conditionals and counterfactuals. (-*la*- occurs quite commonly in conditional and counterfactual apodoses, as in (206b)). Such occurrences, exemplified in (1), are rare and further investigation may prove them unacceptable to at least some speakers. (1a) is a translation from Lozi and (1c) is from a letter written in a group including myself.

(1)   a. esi   mu-<u>la</u>-y-a-ko...
          COND 2PL-<u>NONCMPL</u>-go-FV-CL17(LOC)...

adjacent syllable (to the right) is lexically H. The final vowel must be -*a*. Subject markers are as noted in 2.3.1.3.

(184) a. **Toneless root**:

ndì-<u>là</u>-wàmbà
1SG-<u>NONCMPL</u>-speak-FV

'I speak/am speaking/will speak' (ZT2009Elic16)

b. **H root**:

ndì-<u>lá</u>-yèmbèlà
1SG-<u>NONCMPL</u>-herd-FV

'I herd/am herding/will herd' (ZT2009Elic17)

(185) a. **Toneless OM**:

ndì-<u>là</u>-mù-wàmb-ìl-à
1SG-<u>NONCMPL</u>-speak-APPL-FV

'I tell/am telling/will tell him'

b. **H OM**:

ndì-<u>lá</u>-bà-wàmb-ìl-à
1SG-<u>NONCMPL</u>-3PL-speak-APPL-FV

'I tell/am telling/will tell them'

-*la*- does not appear in relative clauses or in non-indicative moods: it is absent from negatives, hortatives, subjunctives, and relative clauses, and is judged ungrammatical in these contexts, as in (186), where the null-marked form is accepted in a relative clause (186a), but its -*la*-marked counterpart is rejected (186b). -*la*- also does not co-occur with persistive ('still') prefix -*chi*-.

(186) a. *ezi **ndichita**, zilotu*

ezi   **ndi-chit-a**,   zilotu
CL10.DEM 1SG-make-FV.RC COP.CL10.good

'these things **I'm making**, they're good/beautiful' (ZT2007Elic93)

'if/when you go there. . . ' (ZT2007Elic51)

b. esi   mu-<u>la</u>-sak-a,   mu-chi-te!
   COND 2PL-<u>NONCMPL</u>-want-FV 2PL-do-FV.SBJV

'if you want, do [it]!'[12]

c. kambe   chi-<u>la</u>-konz-ek-a   na-twa-mi-lind-il-a. . .
   COUNTER CL7-<u>NONCMPL</u>-be.able-neut-<u>fv</u> COUNTER-2SG.PFV-2PL-wait-APPL-FV

'if it were possible we would wait for you' (ZT2009Elic165)

Note that when -*la*- appears in the apodoses of conditionals, it is translatable by a future in English.

b. *ezi **ndi<u>la</u>chita**, *zilotu*

*ezi   **ndi-<u>la</u>-chit-a**,   zilotu
CL10.DEM 1SG-<u>NONCMPL</u>-make-FV.RC CL10.good

'intended: these things **I'm making**, they're good/beautiful' (ZT2007Elic93)

A -*la*-marked verb can occur on its own or followed by an object, as in (187). The optionality of a following object (adjunct, etc.) stands in contrast to null-marked presents, which, as discussed in the next section, cannot appear without a following word or phrase in the same sentence.

(187)   *otuyuni tu<u>la</u>tusa abantu*

otuyuni   tu-<u>la</u>-tus-a   abantu
CL13.bird CL13-<u>NONCMPL</u>-help-FV CL2-person

'birds help people' (ZT2007Elic41)

4.3.1.2   Null-marked presents

As noted above, Totela presents and hodiernal futures may be marked with -*la*- when in affirmative, realis main clauses. Other kinds of clauses do not contain a post-SM tense/aspect marker. Even in main-clause affirmatives, the present may optionally be expressed without -*la*- (i.e. subject marker + root + -*a*), if followed by another constituent (189), including clausal objects (190), or a postclitic (191). The following word need not be an "object", as shown in (192)[13] As noted, -Ø- also appears in subordinate clauses (193) and in non-indicative contexts, as in the second clause of (190).

Subject markers in null-marked presents are not sensitive to the tone of the following verb root or prefix. Zero marking is indicated in these examples, as a null morpheme, but is generally not explicitly indicated in glossing in this study.[14]

(188)   **ndìyààká** *ìñándà*

ndi-Ø-yaak-a   iñanda
1SG-Ø-build-FV CL9-house

'I'm building a house' (ZT2009Elic46)

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[13]cf. Schadeberg (1994-1995:177) who, discussing Xhosa (S.41) and other southern Bantu languages, considers absence of -*la*-like morphemes (in the case of Xhosa, -*la*-) a diagnostic for objecthood, or at least location in complement position. Schadeberg writes that adverbials can also fill the complement position when these markers, and suggests that

> . . . complements following the long forms [e.g. forms with -*ya*- in the present tense] are not objects but are placed outside the predication frame of the verb (Schadeberg 1994-1995:177).

[14]In including a -Ø- marker in these examples or referring to "null-marked" forms, I am not taking a theoretical stance, but am merely noting the fact that these forms have no marker in the post-SM tense/aspect/mood slot, in contrast to the forms where -*la*- appears in this slot.

(189) *ìjìlò **ndìyá** kùmpìlì*

    ijilo   **ndi-Ø-y-a**   ku-mpili
    tomorrow 1SG-Ø-go-FV CL17(LOC)-fields

    'tomorrow **I'm going** to the fields' (ZT2009Elic34)

(190) **ndisaka** *muchiwambe*

    ndi-Ø-sak-a   mu-Ø-chi-wamb-e
    1SG-Ø-want-FV 2PL-Ø-CL7-speak-FV.SBJV

    '**I want** you to say it' (lit. I want you say it[SBJV]) (ZT2007Elic85)

(191) **mùsàkê***nzî?*

    mu-Ø-sak-a=inzi?
    2PL-Ø-want-FV=what

    'what do **you want**?' (ZT2009Elic106)

(192) **ndìyèndà** *ndènkê*

    ndi-Ø-yend-a ndenke
    1SG-Ø-walk-FV 1SG.ONE

    'I'm going / I'll go by myself.' (ZT2009Elic46)

(193) *chìnzí* **ùndìkùwílà**

    chinzi **u-Ø-ndi-kuw-il-a**?
    what   2SG-Ø-1SG-call-APPL-FV.RC

    'why are **you calling me**?' (ZT2009NarrA76.CM.38, *Nyanyambe*)

-Ø-marked forms are ungrammatical when not followed in the sentence by another word or phrase, even with intransitive verbs. Thus, (192), with an adjunct, is grammatical, but (194) is not.

(194) **ndìyèndà*

    *ndi-Ø-yend-a
     1SG-Ø-walk-FV

    'I walk...' (ZT2009Elic46)

Unlike -*la*-, -Ø- forms may co-occur with persistive ('still') marker -*chi*-, as in (195).

(195) *ndì**chì**mánà*

    ndi-**chi**-man-a
    1SG-PERS-finish-FV

    'I'm still finishing/I'm still going to finish' [e.g. 'I haven't finished yet and I'm going to'] (ZT2009Elic57)

Negated versions of utterances with *-la-* and utterance with *-Ø-* take identical form. Negative forms have a *ta-* prefix and a special tone pattern (see appendix C). As noted above, the *-la-* marker does not occur in negatives: negations of *-la-* forms have null marking.[15]

(196) *tàndíyèmbèlà*

    ta-ndi-yembel-a
    NEG-1SG-herd-FV

    'I don't herd' (ZT2009Elic17)

(197) *tàndìúkùtà*

    ta-ndi-ukut-a
    NEG-1SG-shake-FV

    'I don't shake (intr)' (ZT2009Elic16)

4.3.1.3   *-la-* vs. *-Ø-*

The distribution and history of the *-la-* maker indicates that it differs from null-marking in presents and futures not in its temporal properties, but in terms of focus. The *-la-* morpheme is rare across Bantu, and in its Zambian relatives, it is typically analyzed as a marker of disjunctive focus. (See 4.5.1 for more details.) Güldemann (2003) characters disjunctive *-la-* as a marker of "predication focus" – i.e. focus on a lexical verb or "predication operator" marking tense, aspect, mood, or polarity (Güldemann 2003). *-Ø-* forms, in contrast, mark what Güldemann (2003:332) calls "term focus": they focus the object or another following phrase.

This contrast appears to be on its way towards neutralization in Zambian Totela, with *-la-* becoming the default marker in main-clause affirmatives, and null marking appearing elsewhere. In main clause affirmatives, speakers accept a *-la-*marked form wherever they accept or produce a null-marked form. However, some focus effects are still in evidence.

For example, as noted in 4.3.1.2, *-la-* does not occur when the object is focused, such as in a wh- object question. Frequently, wh-words are raised and occur in copular form at the beginning of a sentence, followed by a relative clause as in (198):

(198) *chìnzí mùsákà*

    chinzi   mu-sak-a
    CL7.what 2PL-want-FV.RC

    'what do you want?' (lit. 'it is what that you want?') (ZT2009Elic106)

A typical answer to the question in (198) might be as in (199), with the answer in copular form (without the vocalic "augment" on the verbal prefix), possibly followed by a verb in relative clause form.

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[15]See 2.3.1.6 for details on the final vowel of negatives in ZT.

(199) *chìyùnì (ndìsákà)*

  chiyuni   (ndi-sak-a)
  CL7.COP.bird (1SG-want-FV.RC)

  'it's a bird (I want)'

However, in-situ wh-questions are also licit, where the wh-word appears as a postclitic, e.g. *=(i)nzi* 'what, which'. These constructions may occur with and without *-la-*:

(200) a. *mùl̲àsàkênzî?*
         mu-l̲a-sak-a=inzi?
         2PL-NONCMPL-want-FV=what

         'what do you want?' (ZT2009Elic106)

     b. *mùsàkênzî?*
         mu-sak-a=inzi?
         2PL-want-FV=what

         'what do you want?' (ZT2009Elic106)

However, the answer to both (200a) and (200b) was virtually always given by speakers with Ø-marked *ndìsàká . . .* 'I want . . .', as in (201a), although the *-la-* counterpart (201b) was also accepted.

(201) a. *ndìsàká èchìyùnì*
         ndi-sak-a   echiyuni
         1SG-want-FV CL7.bird

         'I want a bird' (ZT2009Elic106, given)

     b. *ndìl̲àsàká èchìyùnì*
         ndi-l̲a-sak-a   echiyuni
         1SG-NONCMPL-want-FV CL7.bird

         'I want a bird' (ZT2009Elic106, accepted)

The prevalence of null-marked responses when the object is questioned is a sign that *-la-* still carries a sense of verbal focus. Using an object-focused (null-marked) form is more congruent than using *-la-*. The acceptance of both responses, as well as the general prevalence of *-la-*, suggests that this component of its meaning may be weakening. The question/answer pair is at least acceptably congruent even with *-la-* marking in the answer.

My general impression is that *-la-* occurs primarily with the verb root *-saka* 'want' followed by an infinitive[16] or with *-ya* 'go' followed by a goal, although it also occurs with other

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[16]In fact, one consultant rejected *ndìlàsàká òkùyà* 'I want to go', in favor of the null-marked form (ZT2009Elic34). Another consultant, however, accepted both forms as grammatical (ZT2009Elic46). In general, the consultant who rejected the forms was more "generous" with her judgments of acceptability than was the consultant who accepted both, so the contrast is likely stylistic or situational.

roots, particularly when the object is focused, as in the answer to an object wh-question, similar to the questions above. When speakers are asked to comment on the differences between the forms in (201a) and (201b), they sometimes report that forms without *-la-* seem to convey more immediacy (e.g. ZT2009Elic106); this again may reflect *-la-*'s origin as a disjunctive marker, focusing the verb rather than its arguments, while unmarked verbs focus the arguments, and thus, possibly, the situation as a whole, which may then be perceived as somehow imminent.

In terms of temporal specifications, *-Ø-* marked forms can have virtually all of the readings discussed below for *-la-* marked forms, as shown in (202):

(202) a. **Generic:**
echi muchiwamba buti muchiTotela?

echi   mu-chi-wamb-a   buti   mu-chiTotela?
CL7.DEM 2PL-CL7-speak-FV CL14.how CL18(LOC)-CL7.Totela

'this thing, how do you say it in Totela?' (ZT2006Elic21)[17]

b. **Present stative:**
wize ndisaka okukuwambila!

u-iz-e   ndi-sak-a   oku-ku-wamb-il-a!
2SG-come-FV.SBJV 1SG-want-FV INF-2SG-speak-APPL-FV

'come here, I want to tell you [something]!' (ZT2006Elic68)

c. **Future:**
ìjìlò ndìyá kùmpìlì

ijilo   ndi-y-a   ku-mpili
tomorrow 1SG-go-FV CL17(LOC)-CL9.fields

'tomorrow I'm going to the fields' (ZT2009Elic34)

d. **Present progressive:**
sàyènzyá ìtèndè lyònkê

sa-yenz-a   itende   lyonke
DM.3SG-walk.CAUS-FV CL5.leg CL5.ONE

'then he's walking with one leg' (ZT2009NarrA05.GS.35, *Fumako*)

The *-la-/-Ø-* contrast, then, is not between *-la-*-marked forms and forms marked for other tenses and aspects. Rather, *-la-* marking is related to disjunctive focus, although the contrast may be diminishing in favor of syntactically-conditioned allomorphy, with *-la-* marking in main-clause affirmatives and null-marking elsewhere. Section 4.5 discusses other languages with markers related to disjunctive *-la-*. In some, *-la-* seems to retain its focus meaning; in others, this contrast has been lost.

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[17]Still, my sense from daily life is that in habitual contexts, *-la-* forms are preferred, for example, *mulalya indongo?* tended to be used for 'do you eat peanuts?' whereas a form without *-la-* would be asking about the present situation. This impression needs further verification.

Because this chapter deals with the semantics and pragmatics of non-completion, the focus distinction is not considered further in the analysis, and *-la-* and *-Ø-* are treated as essentially interchangeable, aside from the conditions mentioned here. Section 4.3.8 revisits *-la-* and *-Ø-* in terms of morphological markedness, and 4.5 discusses the role of *-la-* in Bantu, including some of Totela's nearest relatives.

For brevity of expression, *-la-* is sometimes used as a general cover label for both non-completive marking possibilities, *-la-* and *-Ø-*.

4.3.2 Temporal interpretations

As noted in the introduction, *-la-* occurs in affirmative main clauses describing situations that are ongoing (203), in the (near) future (204), or habitual/generic (205).

(203) **Ongoing:**

    a. *ndìlábònà*

       ndi-<u>la</u>-bon-a

       1SG-<u>NONCMPL</u>-see-FV

       'I see'

    b. *obwawu bulashupa*

       obwawu   bu-<u>la</u>-shup-a

       CL14.relish CL14-<u>NONCMPL</u>-cause.trouble-FV

       'relish is a problem' (i.e. we don't have any) (ZT2006Elic20)

    c. *kùnò kùlàlìlwà...'*

       kuno   ku-<u>la</u>-lil-w-a...'

       CL17(LOC).DEM CL17(LOC)-<u>NONCMPL</u>-cry-PASS-FV

       'there is mourning [going on] here' (ZT2009Elic151)

(204) **Near future:**
Ínwè mwìná òkùlìmà-lìmá àwò ndípènì mwáànênù ndìkàlélè. **Ángù ndìlàbòòlà**

inwe   mu-ina oku-lim-a-lim-a   awo   ndi-peni
2PL.PRON 2PL-have INF-cultivate-FV-CULTIVATE-FV CL16.DEM 1SG-GIVE.PL.IMP

mwaanenu   ndi-ka-lel-e.   **angu ndi-<u>la</u>-bool-a**
child.2PL(POSS) 1SG-DIST-amuse-fv.sbjv. soon 1SG-<u>NONCMPL</u>-return-FV

'Hey you there cultivating away, give me your child that I may go amuse it. **I'll come back soon.**' (ZT2009NarrA19.GS.12-13, *Kalima Mawundu*)

(205)   a. **Habitual:**

       munsikunsiku ndilayenda

       munsikunsiku ndi-<u>la</u>-yend-a

       every.day   1SG-<u>NONCMPL</u>-walk-FV

       'I walk every day' (ZT2007Elic133)

b. **Generic:**

otuyuni tulatusa abantu

otuyuni   tu-<u>la</u>-tus-a   abantu
CL13.bird CL13-NONCMPL-help-FV CL2-person

'birds help people' (ZT2007Elic41)

Although -*la*- can be used with progressive-like meaning, in such contexts it is more common to see forms specifically dedicated to the progressive (see 7.3.2). Still, a progressive reading is available for -*la*-, as in (203c) above.

Because *na*- is available for posthodiernal futures (see chapter 5), futurate -*la*- is mostly used for situations that are expected to hold on the day of utterance (or the day of another contextually-determined perspective time). This temporal distinction is not rigid, however. -*la*- without the *na*- prefix is widely-attested in reference to situations that will commence or finish after the day in which perspective time is contained. Several examples are given in (206).[18]

(206)   a. *ìjìlò ndìl̲à̲yá kùmpìlì*

ijilo   ndi-<u>la</u>-y-a   ku-mpili
tomorrow 1SG-NONCMPL-go-FV CL17(LOC)-CL9.fields

'tomorrow I'll go to the fields' (ZT2009Elic34)

b. *Ésì tándìbónè ìjìlò, ndìl̲à̲kútùlàwùlà!*

esi   ta-ndi-bon-e   ijilo   ndi-<u>la</u>-ku-tul-awul-a!
COND NEG-1SG-see-FV.SBJV tomorrow 1SG-NONCMPL-2SG-pierce-ITER-FV

'if I don't see [what you said] tomorrow, I'll stab you to pieces!' (ZT2009NarrA-38.CN, *Chibize*)

c. *ndil̲a̲mana echilimo tandiyamba echiTotela*

ndi-<u>la</u>-man-a   echilimo ta-ndi-yamb-a   echiTotela
1SG-NONCMPL-finish-FV CL7.year NEG-1SG-speak-FV CL7.Totela

'for a year I won't speak Totela' (lit. 'I'll finish a year I won't speak Totela')(ZT-2006Elic75)

Recall also that -*la*- may be used along with posthodiernal (dissociative) marker *na*- in main clause posthodiernal affirmatives.

(207)   *nándìl̲à̲nèngà*

na-ndi-<u>la</u>-neng-a
POSTHOD-1SG-NONCMPL-dance-FV

'I will dance' (tomorrow or after) (adapted from ZT2007Elic71)

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[18]The inclusion of temporal adverbs in these examples suggests that they may already serve to invoke a domain, and the perspective time may be shifted to within that domain. However, the use of *na*- within these same contexts is also felicitous, so further motivations for the lack of *na*- marking here must be considered.

In summary, analysis of the "present" with *-la-* must account for the following temporal (tense and aspect related) uses:

(208) a. Progressive
      b. Generic
      c. Hodiernal future
      d. Posthodiernal future (less common)
      e. Posthodiernal future in combination with *na-* (common)

In the absence of the *na-* prefix, *-la-* and *-Ø-* marked verbs, I will argue, indicate non-completion of the situation they reference. In this sense, their function is complementary to completive *-a-*. As argued in chapter 3, *-a-* indicates completion in relation to the situation's internal temporal structure. The Totela *-la-* and *-Ø-* forms indicate the reverse: the situation is not yet completed. Location of the situation in the currently evoked conversational domain indicates that the situation is underway or expected at perspective time (which is anchored, in the default case, to utterance time); however, nothing is specified about the situation's onset. Thus, the situation may be underway at perspective time, or it may be entirely in the future of reference time. This vagueness gives rise to the present (progressive and generic) and futurate readings, respectively. The lack of dissociative marking indicates that the situation obtains in the domain of context – by default, the associative domain. Therefore, if it is not already underway, its (partial or full) inclusion in the associative domain indicates that it is expected, given the speaker's knowledge and the normal progression of events.

Thus, *-la-* and *-Ø-* can have a variety of temporal interpretations. Section 4.3.6 has further discussion of interactions of *-la-* and situation type.

4.3.3   Evidence for non-completion

Evidence that Totela present forms are "non-completive" – i.e. that they indicate that situation completion has not yet transpired in the associative domain – is found the uses of *-la-* and *-Ø-* marked predicates to refer to present and future situations, but not to situations in the past. This may be seen perhaps most clearly with change-of-state verbs. As discussed in chapter 3, change-of-state verbs that depict entry into a state often have present state readings with completive *-a-*, as in (209).

(209) *ndafwa inzala*

      nda-fw-a   inzala
      1SG.PFV-die-FV CL9.hunger

      'I'm hungry' (lit. 'I've died of hunger') (ZT2007Elic91)[19]

With *-la-*, on the other hand, the corresponding sentence can only have a future reading:

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[19]Note that this idiomatic phrase 'die of hunger' is not uncommon in Bantu.

(210) *ndilafwa inzala*

ndi-<u>la</u>-fw-a   inzala
1SG-<u>NONCMPL</u>-die-FV CL9.hunger

'I'll be hungry' (lit. 'I will die of hunger') (ZT2007Elic90)

Because the completion of the change of state has not been realized at perspective time, only a future state reading is available with this kind of change-of-state verb. With verbs that do not depict entry into a state, the situation depicted (telic or atelic) may be either underway or completely in the future, but not completely in the past.

The same contrast holds for other verbs referring to entered states. When compared with *-ite* forms, which pick out a (relevant) state (see chapter 6), speakers typically equated change-of-state verbs with *-ite* and perfective *-a-* as having the same temporal relation to the situation itself; with non change-of-state verbs, the *-ite* forms generally were temporally equated with *-la-* forms, at least under one possible reading. Comparison of the three forms is shown with a change-of-state verb in (211) and with a perception stative in (212).

In (211), with *-bomba* 'get wet/soaked', speakers judged the *-ite* form and the form with completive *-a-* as roughly equivalent, both denoting an entered state (being soaked). The *-la-* form cannot mean that the cassava is fully soaked; the soaking must still be underway, or yet to happen.

(211) a. *omwanja u<u>la</u>bomba*

omwanja   u-<u>la</u>-bomb-a
CL3.cassava CL3-<u>NONCMPL</u>-get.wet-FV

'the cassava is soaking / will soak' (ZT2007Elic89)

b. *omwanja ulibombete ≈ omwanja wabomba*

omwanja   u-li-bomb-ete   ≈ omwanja   wa-bomb-a
CL3.cassava CL3-PRES.STAT-get.wet-ITE ≈ CL3.cassava CL3.PFV-get.wet-FV

'the cassava is soaked' (or 'the cassava has soaked', with *-a-*) (ZT2007Elic89)

On the other hand, with perception stative *-bona* 'see' in (212), the *-la-* and *-ite* readings are basically the same: a person uttering either *ndilabona* or *ndilibwene*, as in (212a), is likely to be referring to a present seeing situation (and would thus be lying if their eyes were closed). There is no such restriction with *-a-* in (212b), typically judged as a past.[20]

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[20]Because *-ite*, *-la-*, and *-a-* all have a great deal of temporal freedom after their basic conditions are satisfied (non-completion with *-la-*, completion with *-a-*, and stativity/relevance with *-ite*), these are not the only possible readings of the examples in (211) and (212). However, they do represent the most salient readings as judged by native speakers in elicitation, and the change-of-state/non-change-of-state distinction is fairly robust. Still, it should be kept in mind that the equivalencies in (211) and (212) are only approximate, and are only in reference to temporal relations with the situation itself; pragmatic and other effects are ignored here.

(212) a. *ndila̱bon-a ≈ ndilibwene*

    ndi-<u>la</u>-bon-a   ≈ ndi-li-bwene
    1SG-NONCMPL-see-FV ≈ 1SG-PRES.STAT-see.ITE

    'I see' (with *-ite* and with a present reading of *-la-*, not true with eyes closed) (ZT2007Elic89)

   b. *ndabona*

    nda-bon-a
    1SG.PFV-see-FV

    'I saw/I have seen' (can be true with eyes closed) (ZT2007Elic89)

Also, while the situation referenced must be at least partially in the domain of context – by default, the hodiernal domain – there is no requirement for its completion in that domain, as seen in (213), where the working event is planned to extend until the arrival of a visitor expected to come the following day:

(213) *tula̱tenda mane nasike*

    tu-<u>la</u>-tend-a   mane na-sik-e
    1PL-NONCMPL-work-FV until POSTHOD.3SG-arrive-FV.SBJV

    'we'll work until he arrives (tomorrow)' (ZT2007Elic58)

These examples show that Totela presents are incompatible with the completion semantics associated with perfective *-a-*. The semantics of non-completion, along with the lack of reference to situation onset, can explain interactions of situation type with *-la-*. These interactions are discussed in (4.3.6). In the following section, I argue that that *-la-* does not refer to situation onset.

4.3.4 Evidence against reference to situation onset

Evidence against reference to situation onset is straightforward: the same predicate can refer to a situation that is underway or that does not yet hold. This can be seen in example (214), which could be asking either about the current location of the birds, or about where they will be located later on.

(214) *eziyuni zila̱kala kwibo?*

    eziyuni   zi-<u>la</u>-ikal-a   kwibo?
    CL8.bird CL8-NONCMPL-stay-FV CL17(LOC).which

    a: 'where are the birds now?'
    b: 'where will the birds be?' (e.g. tonight)

If *-la-* located perspective time with respect to situation onset, the sentence in (214) would not be ambiguous between present and future readings, because the onset would either be

prior to perspective time (present state reading) or in its future (future state reading). The same interpretive possibilities hold for non-stative predicates, although a habitual or future reading is more likely for non-statives because of the availability of a specifically progressive construction.

4.3.5   *-la-* and aspect

Recall the various aspectual possibilities for *-la*-marked verbs as listed in (208). Analysis of *-la-* (and *-Ø-*) as indicating non-completion of the situation nucleus provides a ready explanation for the variety in "tense" readings (present vs. future situation). It also accounts for the various possible "aspectual" interpretations, including progressive and habitual (generic) readings.

4.3.5.1   Progressive and habitual readings

As noted in 4.3.2, *-la-* forms can have both present (progressive (215) and stative (216)) and generic readings, both habitual (217) and gnomic (218).

(215)   *nelo ndi<u>la</u>seka (... impongo esi nayifwe tandiseka)*

   nelo ndi-<u>la</u>-sek-a   (impongo esi   na-(y)i-fw-e
   now 1SG-<u>NONCMPL</u>-laugh-FV (CL9.goat cond POSTHOD-CL9-die-FV.SBJV
   ta-ndi-sek-a)
   NEG-1SG-laugh-FV

   'now I am laughing (but I won't laugh if the goat dies)' (ZT2006Elic30)

(216)   *ndi<u>la</u>chiswa*

   ndi-<u>la</u>-chis-w-a
   1SG-<u>NONCMPL</u>-hurt-PASS-FV

   'I am sick' (ZT2006Elic51)

(217)   *munsikuniku ndi<u>la</u>lawuka*

   munsikusiku   ndi-<u>la</u>-lawuk-a
   CL18(LOC).every.day 1SG-<u>NONCMPL</u>-run-FV

   'every day, I run' (ZT2007Elic133)

(218)   *abakulu ba<u>la</u>wamba amakande*

   abakulu   ba-<u>la</u>-wamb-a   amakande
   CL2.grownup CL2-<u>NONCMPL</u>-speak-FV CL6.story

   'old people tell stories' (ZT2006Elic32)

The -*la*- marker is also compatible with habitual -*ang*- (see 2.3.1.5).[21]

(219) *awa tandiyi kukulaala, ndi<u>la</u>samb**ang**a*

awa   ta-ndi-y-i   ku-ku-laal-a,
CL16(LOC).DEM NEG-1SG-go-FV.NEG CL17-INF-sleep-FV
ndi-<u>la</u>-samb-**ang**-a
1SG-<u>NONCMPL</u>-bathe-HAB-FV

'before I go to bed, I [habitually] bathe' (ZT2006Elic31)

Both progressive and habitual readings are expected under a non-completion analysis. As pointed out by Ferreira (2004) and Cover (2010:92-95), habituals express an expectation that the situation referred to will obtain again in the actual world. While progressives refer to a single situation that is underway (completion is not yet reached), habituals refer to a plurality of situations, made up of a set of situations of the same type. With habituals, then, non-completion indicates that in the most expected worlds, given the current modal base, some elements of situation set have yet to obtain.

As Ferreira (2004) notes, this analysis of the habitual is a simple extension of the modal analysis of the English Progressive in Portner (1998), in which the progressive evokes (1) an epistemic modal base of facts known about the world that are relevant to whether the progressive can be expected to be true (e.g. whether the agent involved is capable of carrying out the action described to its completion) and (2) an ordering source that allows possible worlds to be organized in the order of the likeliness of the event's completion (i.e. the worlds in which, given the appropriate modal base, there is the least likelihood of the event's being interrupted: these "best worlds" are inertia worlds). The progressive is true for a particular interval if the event is true in the inertia worlds.

Note that situations need not actually reach completion for the progressive to be true (as in 'Nathaniel was drinking a half gallon of milk but he couldn't finish'). Similarly, a habitual sentence such as 'John eats a square of chocolate every day' can be a true utterance today even if John happens to decide tomorrow to swear off chocolate forever. All that is required for their truth is that in the inertia worlds, based on the modal base of the perspective world (e.g. the world in which Nathaniel has been known to drink nearly a gallon of milk in one sitting, and John is a regular and committed chocolate eater) non-interruption (continuation) is expected.

4.3.5.2   Completive vs. non-completive (vs. "neutral" aspect)

Totela -*la*- and -Ø- presents are aspectual in that they refer to the temporal structure of predicates. However, they are neither "perfective" nor "imperfective" as depicted in traditional viewpoint analyses, where

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[21]-*ang*- also occurs in my notes without -*la*-, e.g. *munsikunsku ndilwanga nabaniche* 'every day I fight with the children'.

perfectivity indicates the view of a situation as a single whole, without distinction of the various separate phases that make up that situation, while the imperfective pays essential attention to the internal structure of the situation (Comrie 1976:16).

Instead, as suggested in chapter 7, all Totela aspects refer essentially to "the internal structure of the situation". Completives (see chapter 3) assert the completion of an event or change of state and locate perspective time after the point of completion. Imperfectives (discussed in 7.3) depict a situation in progress; that is, they select a topic time wherhe onset is in the past but the completion has not yet been reached. These interactions between aspect and the temporal structure of situations is not predicted by the approach taken by Smith (1997), in which perfective focuses both endpoints of a situation. The representations of imperfective and perfective aspect in Klein (1994), as illustrated in (220) are likewise less than completely appropriate. Klein's topic time is represented by brackets.

(220)   a. Perfective: 'Michael wrote a story'
$$-----------[-----\ ++++++]+++++++++++++$$
                Source State=TSit: Target State:
                story being written   story written

      b. Imperfective: 'Michael was writing a story'
$$---[-------]----\ +++++++++++++++++++$$
                Source State=TSit: Target State:
                story being written   story written

Completive -*a*- in Totela notes only completion of a situation's nucleus (somewhat analogous to source state). This is consonant with Klein's perfective schema, as given in (220). However, it may or may not locate perspective time in the "target state" in cases where the target state is not necessarily assumed to endure, so Klein's notion of perfectivity does not completely account for -*a*-.

Likewise, while Totela does have explicit imperfective constructions (see chapter 7), Klein's imperfective schema is not appropriate for Totela -*la*- forms. These represent a third possibility for event structure interpretations: the completion has not been reached at perspective time, but there is no reference to situation onset. This reference to completion but not onset differs, then, from Smith's (1997) proposal for "neutral" viewpoint, which, as described in 4.2.2, focuses the onset and at least one internal stage, but seems to make no reference to completion.

It may be that Totela, and, possibly, other Bantu languages, make more reference to completion in their aspectual systems because of the prevalence of the durative/change-of-state distinction in their verbal systems, making the situation nucleus – and therefore its completion status with respect to perspective time – prominent. On the other hand, it may be that other languages with present forms that also have future/futurate readings, such as German (and English, with some constraints) can be analyzed in terms of completion.

4.3.6 Interactions with situation type

4.3.6.1 Statives

With "true" statives, the -*la*- form typically conveys a sense of ongoing state. This sense is expected under non-completion semantics, as states are typically conceived of as having longer duration. If not complete (=no longer holding) at perspective time, may typically be assumed to hold at perspective time, rather than in its future. Still, the duration of the state may vary, as shown in (221) and (222) with -*saka* 'like, love, want'. (221) describes a general, long-term preference, while (222) expresses an immediate, short-term desire.

(221) *ndi<u>la</u>saka (a)manawa okusiya amakwili*

ndi-<u>la</u>-sak-a   amanawa   oku-siy-a   amakwili
1SG-<u>NONCMPL</u>-want-FV CL6.bean[LOZ] INF-leave-FV CL6.potato

'I prefer beans to potatoes' (lit. 'I like beans leaving behind potatoes') (ZT2006-Elic73)

(222) *muchibaka chensima ndi<u>la</u>saka omwanja*

mu-chibaka   cha-insima   ndi-<u>la</u>-sak-a   omwanja
CL18(LOC)-CL7.place CL7.mealie.pap 1SG-<u>NONCMPL</u>-want-FV CL3.cassava

'instead of mealie pap (porridge) I want cassava' (ZT2006Elic78)

4.3.6.2 Perception statives

Recall from chapter 3 that with perception statives such as -*bona* 'see', completive -*a*- can have a past reading (*ndábònà* 'I saw'), or, if interpreted as an inchoative (similar to Vendlerian achievements), a present stative reading (*ndábònà* 'I see'). With -*la*-, perception statives also have a range of temporal interpretations. A typical reading is a present stative, as in (223).

(223) *ndilazibona*

ndi-<u>la</u>-zi-bon-a
1SG-<u>NONCMPL</u>-CL10-bon-FV

'I see them' (ZT2006Elic84)

However, given the proper context, example (223) could also mean 'I will see them'. Note that here, the two possible readings are not dependent on situation type coercion: because -*la*- does not refer to situation onset, perception statives, naturally understood to be temporally limited, may have either present or future readings. The perspective time is located prior to situation completion, and may be either before or after the situation onset. Thus, the future interpretation is not dependent on an inchoative reading, like the present interpretation of -*a*-, but neither is it incompatible with inchoativity.

These are illustrated in (224):

(224) *ndìlábònà*

ndì-l<u>á</u>-bòn-à
1SG-<u>NONCMPL</u>-see-FV

a. 'I see'
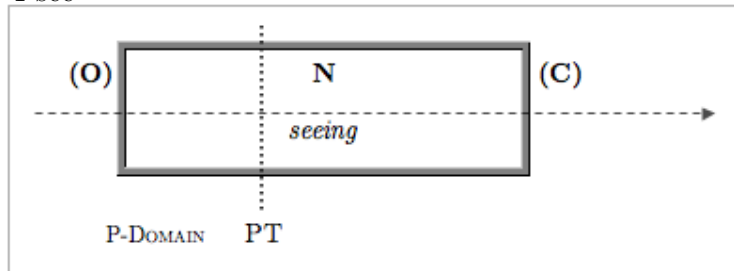
b. 'I will see'
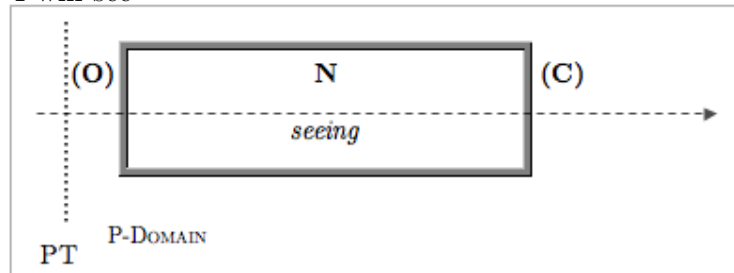
c. 'I will see' (inchoative)
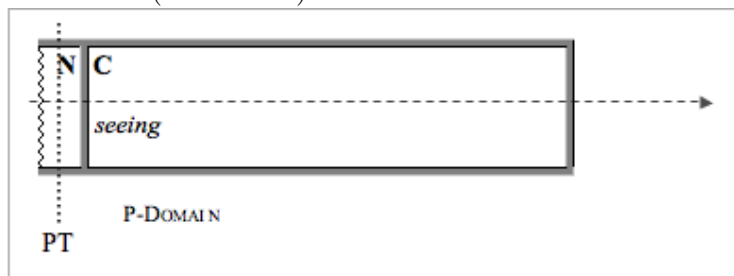
That there are two possible interpretations (present, as in (224a) and future, as in (224b) and (224c)) may also be relevant in the explanation of the general preference for *-ite* (see chapter 6) with present meaning for perception statives, which may be less ambiguous.

Perception statives may also have habitual readings, especially with habitual marker *-ang-*, as in (225).

(225) *ndil<u>a</u>bonanga*

ndi-l<u>a</u>-bon-ang-a
1SG-<u>NONCMPL</u>-see-HAB-FV

'I usually see' (ZT2009Elic84)

4.3.6.3 Duratives

With durative (non-change-of-state) verbs, *-la-* can have all of the readings discussed in 4.3.2. All of these readings may arise for duratives with *-la-* because the end of the nucleus coincides with the coda, the end of the situation as a whole. Perspective time may be located at any point before the coda, whether during or before the situation. Possible readings are shown in examples (226) to (229).

(226) **Habitual**:
izuba nezuba, ndilasamba

izuba   na-izuba   ndi-<u>la</u>-samb-a
CL5.day COM-CL5.day 1SG-<u>NONCMPL</u>-bathe-FV

'every day, I bathe' (ZT2006Elic21)

(227) **Gnomic**:
alaimba china mukombwe

a-<u>la</u>-imb-a   china mukombwe
3SG-<u>NONCMPL</u>-sing-FV like   CL1A.rooster

'he sings like a rooster' (ZT2006Elic60)

(228) **Futurate**:
ndilasamba amatengu

ndi-<u>la</u>-samb-a   amatengu
1SG-<u>NONCMPL</u>-bathe-FV CL6.evening

'I will bathe this evening' (ZT2006Elic23)

(229) **Present (ongoing)**:
saka balalima

saka   ba-<u>la</u>-lim-a
maybe 3pl-<u>NONCMPL</u>-cultivate-FV

'maybe they're cultivating' (ZT2007Elic79)

Note that these may also be part of explicitly progressive constructions, as in (230).

(230) *ndilikweesi ndilasamba*

ndi-li-kweesi   ndi-<u>la</u>-samb-a
1SG-PRES.STAT-grab.ITE 1SG-<u>NONCMPL</u>-bathe-FV

'I am bathing'

Present stative and progressive, future, and generic readings with *-la-* are diagrammed in (231). Present and future readings are as with perception statives. Habitual and gnomic readings (also possible with perception statives) depict an uncompleted multiplicity of situations. Crucially, perspective time is located before completion of the (final) nucleus in all three cases.

(231)   ndì-<u>là</u>-sàmb-à
        1SG-NONCMPL-bathe-FV

    a. 'I am bathing'
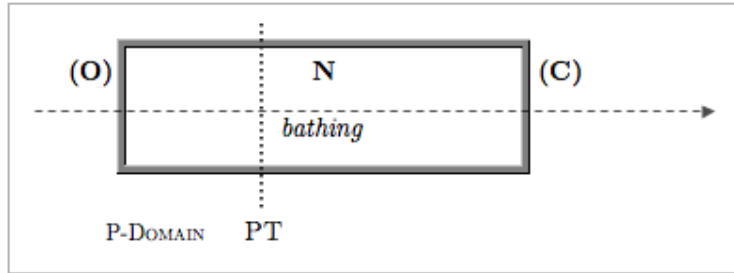
    b. 'I will bathe'
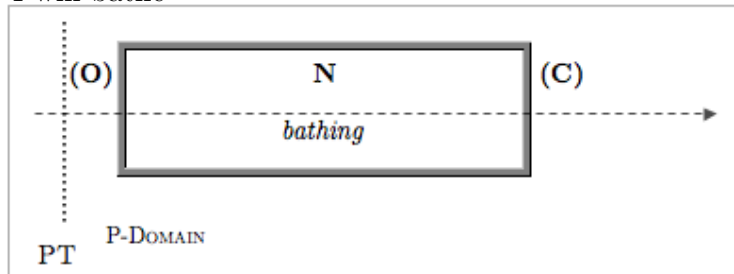
    c. 'I bathe' (habitual)
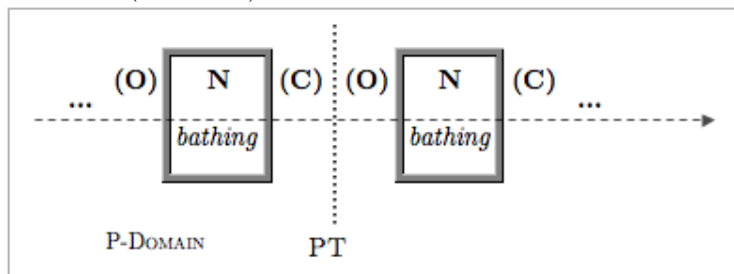
4.3.6.4   Change-of-state verbs

With change-of-state verbs, in contrast, a result state follows the situation nucleus. *-la-* cannot locate perspective time within the result state, but only in the phase before nuclear completion. This contrasts with completive *-a-*, as shown in (232), where the completive form with change-of-state verb *-taba* 'become happy' has a present state reading with *a-* (232a), while change-of-state verb *-ikuta* 'become full' has a future reading with *-la-* (232b).

(232) a. *àbá bàyîmbà bàtàbà*

aba   ba-yimb-a   ba-tab-a

CL2.DEM CL2-sing-FV.RC CL2.CMPL-become.happy-FV

'those who are singing are happy' (ZT2009Elic147)

b. *àbá bàlyâ bàlékùtà*

aba   ba-li-a   ba-<u>la</u>-ikut-a

CL2.DEM CL2-eat-FV.RC CL2-<u>NONCMPL</u>-become.full-FV

'those who are eating will be full' (ZT2009Elic147)

Examples (233) and (234) give graphical depictions of the location of perspective time with respect to the situation nucleus in change-of-state verbs with *-la-*.

In (233), the soaking is underway, but has not yet reached completion (a "soaked" state).

(233) *omwanja u<u>la</u>bomba*

omwanja   u-<u>la</u>-bomb-a

CL3.cassava CL3-<u>NONCMPL</u>-get.wet-<u>fv</u>

'the cassava is soaking' (NOT 'the cassava is soaked') (ZT2007Elic89)
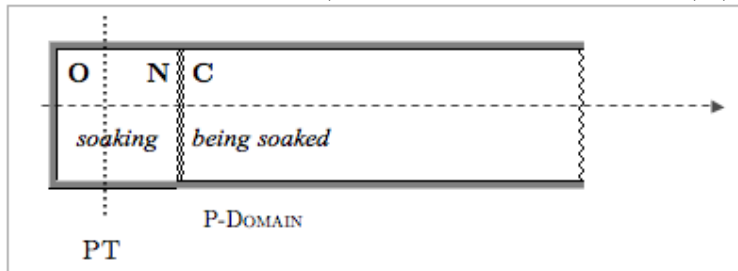
Recall also example (167b), repeated as (234):

(234) *ndìl<u>à</u>kòmòkwà*

ndi-<u>la</u>-komok-w-a

1SG-<u>NONCMPL</u>-surprise-PASS-FV

'I'll be surprised'
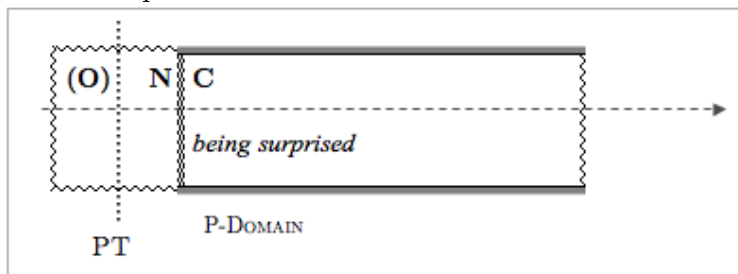
Here, there is not as strong a sense of a preparatory phase for the result state as in (233), so a futurate reading is preferred.

Table 4.3 summarizes the possible interpretations of *-la-* and *-Ø-* marking with various situation type categories, as discussed above.

Situation Type	Possible Interpretations
Durative	Present Future
Change-of-State	Future State
Perception Stative	Present State Future (Inchoative) State
Other Stative	Present State

Table 4.3: Summary of temporal interpretations with *-la-*

Table 4.4 compares these temporal interpretations with those noted for completive *-a-* in section 3.2.2. Note that the interpretations are in near complementary distribution, with the exception of readings for perception statives such as *-bona* 'see', which, I argue, may be interpreted as depicting either the state itself (durative reading, resulting in past interpretations with *-a-* and present or future with *-la-*) or as depicting entry into the state (inchoative, change-of-state reading, giving present state (resultative) interpretations with *-a-* and future readings with *-la-*).

Sit. Type	*-a-*	*-la-*
Durative	Past	Present Future
Change-of-State	Past Present State	Future State
Perception Stative	Past Present State	Present State Future (Inchoative) State
Other Stative	Past	Present State

Table 4.4: Comparison of temporal interpretations for *-a-* and *-la-*

4.3.7 Lack of reference to domain

Totela presents with *-la-* are located by default in the associative domain because they are not marked for dissociation. What this means temporally is that the situations referred to are asserted to obtain at some point in the associative domain, typically – though not obligatorily – equivalent to the day of perspective time. Because of the non-completion

requirement, situations can either obtain in the future or be underway at perspective time, but they cannot be in the hodiernal past.

Evidence for associativity, rather than hodiernality or some other constraint, is at least twofold. First, *-la*-marked verbs may refer to the future, as in (206) above, partially repeated here as (235).

(235) *ìjìlò ndìḻàyá kùmpìlì*

ijilo   ndiḻaya   kumpili
tomorrow 1SG-<u>NONCMPL</u>-go-FV CL17(LOC)-CL9.fields

'tomorrow I'll go to the fields' (ZT2009Elic34)

With examples like this, speakers commented that there was some sense of certainty not evident in the corresponding sentences with posthodiernal *na-*. This judgment is expected if the situation described is asserted to obtain in the currently discourse-salient domain, generally the day of perspective time (see 5.3.2.4 for a discussion of the cognitive relationship between the current day and the associative domain).

Readers may have observed that *na-*, analyzed as a marker of the dissociative domain (in the future) can also co-occur with *-la-*. This is because *-la-* itself does not mark the associative domain. Rather, it asserts that the event obtains (and is not complete at perspective time) in the currently evoked domain. The domain is associative by default in the absence of temporally dissociative marker. In addition to its lack of domain-changing semantics, *-la-* seems to be restricted to realis contexts. This may be related to its origins as a marker of verbal/truth focus. Null-marked forms are used in irrealis contexts. When *na-* and *-la-* co-occur, *na-* shifts the domain to a temporally dissociated world in the future, while *-la-* marks the situation as realis within that (epistemically less certain) world.

-la's lack of inherent domain marking is also seen in its distribution in conditionals and counterfactuals. *-la-* (which typically only appears in main clauses) is rare, if not ungrammatical,[22] in the protases of conditionals and counterfactuals, but it occurs commonly in the apodoses. In conditionals and counterfactuals, the protasis may shift the domain of perspective, while the following *-la-* form asserts that in the newly evoked domain (modal base), the situation referenced is expected to obtain.[23]

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[22]A few examples are found in my notes, but they are questionable because of the elicitation context: most were either direct translations from Lozi or judgments of sentences I constructed myself. For examples, see the footnote in section 4.3.1.1.

[23]Note that the marking is somewhat reversed in English, which has a Simple Present in the protasis and, most commonly, a Future in the consequent. This may be related to the "scheduling" constraint on using the English Simple Present. It is also possible that domain marking in conditionals and counterfactuals simply functions differently in English and Totela. *Note: I plan to reread Eve's discussions for further ideas.*

(236)   *esi ufose muchiTotela, ndi<u>la</u>kusikulula*

esi   u-fos-e   mu-chiTotela,
COND 2SG-make.mistake-FV.SBJV CL18(LOC)-CL7.Totela
ndi-<u>la</u>-ku-sikulul-a
1SG-<u>NONCMPL</u>-2SG-correct-FV

'if you make a mistake in Totela, I'll correct you' (ZT2006Elic31)

4.3.8   Markedness: *-la-* vs. *-Ø-* and non-completion

Throughout this chapter, *-la-* has been treated as an "unmarked" form in contrast to both perfective *-a-* and posthodiernal *na-*. The linguistic concept of markedness is somewhat problematic because of an abundance of uses in various subfields. Haspelmath (2006) lists twelve possible meanings, and suggests that the term "markedness" be done away with altogether in favor of more specific terms. The two senses relevant for this chapter are "markedness as overt coding" (for which Haspelmath recommends the designations "overt coding" vs "zero coding") and "markedness as deviation from default parameter setting (for which Haspelmath recommends "deviation from default parameter setting")(Haspelmath 2006:64-65). In many languages, the basic "present" form is less marked morphologically than other tenses and aspects: it has less overt morphological coding. However, in most narrative genres, it represents a "deviation from [the] default parameter setting", since narratives are typically recountings of situations in the real or imagined past. Important here is the idea of morphological marking, i.e. overt coding – which, it shall be seen, interacts with "default parameter setting[s]".

Fleischman (1990:53-54) lists three possible interpretations of an unmarked form rather than an overtly coded form.[24]

a. MINUS INTERPRETATION: The morphological mark (e.g. past tense marking) is missing and therefore its typical semantic specification does *not* hold.

b. ZERO INTERPRETATION: The absence of a morphological marker signifies that its semantic specifications are irrelevant; they may or may not hold. "For the [present] tense this zero-interpretation is the basic meaning of 'timelessness' or 'atemporality'. . . In these examples

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[24]The morphologically *unmarked* form represents a parameter deviation in some cases. Fleischman's discussion is specifically related to present forms in narratives, which are assumed to describe past events and states. Larry Hyman (p.c.) notes that the lack of morphological marking may be semantically marked, as is the case with noun class augments in Luganda (JE.15) and Totela. In Luganda, for example *omulimi* means 'farmer', while *mulimi* means 'he's a farmer'. The form with augment marking represents the general reading, while omission of an augment creates a copular form.

What is specifically considered in Fleischman's categorization above is not semantically marked meaning for morphologically unmarked forms, but rather the interpretation of morphologically unmarked forms where overtly coded forms are expected, based on what typically would appear in that context. Unmarked forms in these contexts can be interpreted as having the feature corresponding to the marked form (plus interpretation), being underspecified with regard to the feature (zero interpretation), or indicating *absence* of the missing form's feature (minus interpretation).

the [present] is used not so much because it refers to a given time but because it is the only tense that can be used with minimal reference to time" (Fleischman 1990:53).

c. PLUS INTERPRETATION: The feature(s) specified by the absence morphological marking are also assumed for the morphologically unmarked form; use of the morphologically unmarked form has some other (e.g. textual or expressive) function. The plus interpretation use is assumed with narrative presents referring to past situations.

The lack of morphological marking on many presents cross-linguistically has led to at least two analyses, corresponding to Fleischman's "zero" and "minus" interpretations. Linguists in the "zero" camp assume the (unmarked) present to be semantically vacuous. Proponents of this theory include Sauerland (2002) and Bybee *et al.* (1994), who write that the present tense

> . . . carries no explicit meaning at all; it refers to the default situation from which other tenses represent deviations . . . [It can] absorb the meaning inherent to normal social and physical phenomena, and this meaning if described and broken down explicitly, consists of habitual occurrence and behavior as well as ongoing states (Bybee *et al.* 1994:152).

The "minus" interpretation backers, in contrast, would argue that the unmarked present, lacking past-tense marking, designates either a non-past or a true present, i.e. the temporal specification of past tense does not hold. Such theories, of course, have to contend with the common past and futurate readings described above; some possible solutions – e.g. fictive readings – are also discussed in the previous section.

Because they are not marked as perfectives, forms with *-la-* indicate non-completion. Because of the lack of *na-* or other dissociative marking, situations with *-la-* are (at least partially) included in the associative domain. These interpretations are both examples of "minus" interpretations, as in Fleischman (1990:53-54), where lack of a morphological mark indicates that its semantics do not hold. However, it is obvious that *-la-*-marked forms *are* morphologically marked: they are marked with *-la-*. This raises an important question: if *-la-* marking does not itself indicate non-completion or location in the associative domain – but these are instead indicated through lack of marking for completion of dissociation – why are most present and hodiernal forms marked with *-la-*?

The answer to this question appears to be largely historical. *-la-* is descended from a Proto-Bantu focus marker *-da-*. Its origins are discussed in greater detail in section 4.5. It may be assumed that *-la-* and *-Ø-* contrasted in their scopal focus, not their temporal specifications. As discussed in 4.3.1.3, differences in focus are still evident, though they may be diminishing. Recall from 4.3.1.3 that *-Ø-* marked forms are subject to restrictions. Mainly, they cannot occur in main clauses unless followed by another constituent. As noted above, this is likely due to a historical contrast between DISJUNCTIVE focus (i.e. verb included in focus) with *-la-* and CONJUNCTIVE focus (i.e. focus on the following constituents) with unmarked forms, as seen in many of Totela's Zambian relatives such as Bemba and Tonga (Nurse 2008:205ff). Although the contrast appears to be neutralizing in Totela, in favor of

-*la*- in main clauses and -Ø- in subordinate clauses, some disjunctive/conjunctive effects are still in play.[25]

Section 4.3.1.3 concluded that -*la*- and -Ø- contrast not temporally, but in terms of focus, although even this contrast may be weakening. Thus, -*la*- and -Ø- both represent a lack of marking with respect to completion and domain. This lack of marking indicates non-completion and location in the associative domain (Fleischman's "minus interpretation"). If, as it seems, -Ø- marking is being lost from main clauses, -*la*- is likely to be reinterpreted as a tense/aspect marker, coming to mean something like "non-completive", with a morphosyntactic distribution in main-clause affirmative declarative indicatives.

4.3.9   Summary of analysis

I have argued that the unmarked and -*la*- forms in Totela represent non-completives, which contrast with completive -*a*-. They do not refer to situation onset, which can be at or after the contextually-determined perspective time, but they do indicate that the completion of a situation nucleus is located at some point subsequent to the perspective time. Like -*a*-, they do not change the domain of discourse. Thus, the completive/non-completive distinction in Totela, with respect to situation nucleus, seems to be privileged above canonical "tense" relationships between utterance time and "topic" or perspective time.

In the following section, I discuss how the notion of non-completion is exploited in narrative structuring.

4.4   "Present" tense and non-completion in narrative

4.4.1   Present in narrative

Canonically, narratives describe situations that occurred in the past, whether that past is real or imagined. Thus, the "unmarked" tense in narrative – unmarked in the sense of "default parameter setting", following Haspelmath (2006) – is the past tense. As a result, when present and future tenses appear in narrative, it may generally be assumed that they play some special role.[26]

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[25]Also, as noted in 4.3.1.3, speakers report that -Ø-marked forms seem to convey some sense of immediacy not present in -*la*- forms. For example, when *ndɨ̰láyààká ɨ̃ándà* 'I am building/will build a house' was contrasted with its null-marked counterpart *ndɨ̀yààká ɨ̃ándà*, speakers interpreted the prior as futurate and the latter as indicating a situation already in progress (ZT2009Elic106). This may be related to the close relationship to the following constituent: perhaps with an emphasized object, a sense of completion and boundedness becomes more prevalent.

[26]It must be noted that some narratives (and narrative genres) take the present as their primary reporting tense. Fleischman describes these as inherently marked genres:

> All genres that choose the PR as the basic tense for reporting information are in some way against the narrative norm; they are consciously or unconsciously antinarrative. As marked varieties of narrative, they accordingly privilege a tense that is itself marked in a narrative context. What we observe, in other words, is a second-order reversal of markedness values in

In many languages, including Totela, the present occurs with some frequency in narratives with past settings. Discourse analysts have developed numerous theories to account for the frequent, yet seemingly anomalous, use of the present in narrative.

There are two possible anchorings for the present when used in narrative. When anchored to the speaker's now, present (and other) forms may have "a *phatic* function of calling attention to the channel of communication" (Fleischman 1990:126). More interesting for our purposes are present forms anchored to story time. In these cases, the past form could be substituted with no semantic difference (Fleischman 1990:127) – the events are still construed as having occurred in the (real or imagined) past. Thus, the choice is in some way pragmatically based.

Several commonly posited functions of the present in narrative are discussed here: creating an effect of "vividness", marking narrative boundaries, "pacing" the narrative, inserting "evaluations" into a series of narrative clauses, and noting a shift in discourse mode. These are discussed briefly in turn.

The most common analysis of the function of the present in primarily past-tense texts is that it marks events as "vivid and exciting", or that it "enhanc[es] the dramatic effect of a story by making addressees feel as if they were present at the time of the experience" (Fleischman 1990:75). Fleischman attributes this effect to the imperfectivity of present forms, arguing that the imperfective nature of the present and past imperfective (imperfect) allows them to depict the past "as if it were occurring, unmediated by the reflective consciousness of the experiencer". For this reason, they are particularly appropriate for several irrealis genres in which they commonly appear, including "children's make-believe games or dream narrations", and those "that refer to a legendary or mythical past. . . and the epic universally" (Fleischman 1990:124).

If Fleischman's argument hinges on imperfectivity, then it might be called into question by phenomena such as the German Historical Present, since the German *Präsens* is typically analyzed as unspecified for aspect. Also, I have shown above that Totela *-la-* corresponds neither with traditional perfective or imperfective analyses, yet it does seem to have vividness effects. Cases such as Totela and German would require either that the vividness effect is related to something other than imperfectivity, or that the *possibility* of an imperfective reading is sufficient to create an effect of vividness.

Other, and perhaps stronger, arguments have been advanced against positing a "vividness" function of the present in narrative, particularly when vividness is conflated with foregrounding. The present is used inconsistently with regard to "grounding" (itself a problematic term, see e.g. Fleischman 1985, 1990), and not all foregrounded or salient events are in the present.

Looking at the problem historically, Kiparsky (1968) argues that at least in early Indo-European, the choice of present forms in narratives is syntactically based and explainable by a rule of conjunction reduction: when the time has been established as past by tense marking, its overt expression in subsequent clauses becomes optional, and it may be replaced by

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a second-order marked context (Fleischman 1990:11).

the semantically-empty present, functioning syntactically as a past. Because the present can also be used in conjunction with other tenses, as well as moods in early Indo-European languages, Kiparsky calls any attempts for a semantic explanation "absurd" (Kiparsky 1968:33), although an analysis in terms of vividness may be "adequate" for some modern languages such as German and English (Kiparsky 1968:51).

Fleischman responds that Kiparsky's analysis is certainly valid for early written forms of Indo-European languages, but that "the more appropriate question is why the [present] has been mobilized across so many languages to carry out a number of pragmatic functions in the normally past-tense discourse of narrative" (Fleischman 1990:78).[27] That is, there seems to be something important and special – whether particular features or lack thereof – about the present that makes it particularly amenable to such exploitation.

Aside from the apparent stylistic effect of creating vividness, a number of functions are reported for a switch to (or from) the present in narrative. One important function is marking narrative boundaries. For example, tense switching is often – though inconsistently – used to mark participant change (Fleischman 1990:91); switching also occurs at changes of "discourse topic. These boundary-marking uses "can partition a text into spans centered around a setting or macro-event" (Fleischman 1990:200-201).

Somewhat relatedly, the present may be used to pace a narrative; it can both accelerate (by telescoping) and slow the tempo of narrative events. Typically, a series of present forms of action verbs may have an accelerative effect, while present forms of stative predicates invoke a slowing, "visualizing" impression (Fleischman 1990:211-212).

The present can also have strong evaluative functions in narrative (see Labov & Waletzky 1967). It is commonly used for "internal evaluations" (Fleischman 1990:215) and "interior monologue" (Fleischman 1990:243).

Finally, choosing the present as the primary tense may have a "metalinguistic function. . . to identify the discourse as something other than narrative" (Fleischman 1990:308).

In summary, the narrative present has been posited to have effects of vividness, text structuring and pacing, text-internal and external evaluation, and genre specification. Below I discuss the uses of the "present" forms in Totela narratives, which have most of these effects, and argue that their functions are related to the discourse-structuring notion of completion.

4.4.2   Non-completion in Totela narratives

Non-completive forms are found with some frequency in Totela narratives, particularly in quoted speech. This is not surprising, as narrative dialogue primarily concerns itself with the (narrative) here-and-now. Generally, quotations are used by speakers to reveal their plans or desires, which the semi-omniscient narrator – who seems in general to be privy to all happenings in public and private, but not the internal lives of characters – could not

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[27]Later in that work, Fleischman proposes that a NARRATIVE PRESENT used (pragmatically) in oral performances may give rise to the HISTORICAL PRESENT used in "absent-author communication" such as primarily written works (Fleischman 1990:90). This suggests that there may also have been such a relationship in ancient Greek, Old Irish, Old Norse, and other early Indo-European varieties, though this is of course impossible to check.

otherwise reveal. Non-completive forms are used because the plans described are in the narrative future. In example (237), the wicked old woman uses a futurate -*la*- to promise to a mother that she will return with her child.

(237)   *Ínwè mwìná òkùlìmà-lìmá àwò ndípènì mwáànênù ndìkàlélè.* **Ángù ndìl̲à̲bòòlà.**

inwe   mu-ina   oku-lim-a-lim-a   awo   ndi-peni
2PL.PRON 2PL-have INF-cultivate-FV-CULTIVATE-FV CL16.DEM 1SG-GIVE.PL.IMP

mwaanenu   ndi-ka-lel-e.   **angu ndi-l̲a̲-bool-a**
child.2PL(POSS) 1SG-DIST-amuse-fv.sbjv. soon   1SG-L̲A̲-return-FV

'Hey you there cultivating away, give me your child that I may go amuse it. **I'll come back soon**.' (ZT2009NarrA19.GS.12-13, *Kalima Mawundu*)

Example (238) also has a futurate -*la*-, used in a monologue as the lone speaker talks to herself as she develops her plans. The episode describes an old person coming home to her shack in the forest, only to discover that it has been burnt down (by village children, as it turns out). The quote describes her reaction to the discovery: she wonders about the burners' identity, and then pledges to herself to wreak revenge.

(238)   *Awo nokunyelwa. Nokutalika okundandawula: "Iñanda yangu, bani baitenta? Sunu kuti ndikabacite echintu!* **Ndil̲a̲ya** *kumunzi."*

awo   noku-nyel-w-a.   noku-talik-a   oku-ndandawul-a:
CL6.DEM COM.NARR-annoy-PASS-FV COMM.NARR-begin-FV INF-mutter-FV

"iñanda   yangu,   ba-ni   ba-i-tent-a?   sunu kuti
CL9.HOUSE CL9.1SG(POSS) 2PL-who 2PL-CL9-burn-FV today that

ndi-ka-ba-chit-e   echintu! **ndi-l̲a̲-y-a**   ku-munzi.
1SG-DIST-2PL-do-FV.SBJV CL7.thing 1SG-N̲O̲N̲C̲M̲P̲L̲-go-FV CL17(LOC)-CL3.village

'Then she got mad. And she began to mutter, "My house, who burned it down? Today, I swear, I'm going to show them! I'll go to the village" ' (ZT2009NarrA10.NS, *Namayoyo revision*)[28]

Immediately thereafter in the narration, however, she changes her mind, and instead returns to rebuild her house, pledging that if the situation repeats itself the next day, she will indeed reach the village and take care of the perpetrators. This thought process is shown in (239). Throughout, the quoted speech reflects her inner thought processes.

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[28]The original version has the same tenses in the relevant positions; the revision is slightly more clearly presented and is therefore used here.

(239) *Nokubwelela akati, kuti, "**Ndi<u>la</u>yaaka** echanda changu." Nokuya nakayamba.*
"Ijilo esi nandiwaane batenta, awo nandilakasika kumunzi." Nokutalikako okuyaaka-
yaaka. Kumana kuyaaka-yaaka, nankumwi nokuya mukutobela zokulya mubwiili.

noku-bwel-el-a   akati,   kuti, "**ndi-<u>la</u>-yaak-a**   echanda
COM.NARR-return-APPL-FV between that 1SG-<u>NONCMPL</u>-build-FV CL7.house

changu."   noku-y-a   nakayamba.   "ijilo   esi
CL7.1SG(POSS) COM.NARR-go-FV COM.CL12.hoe tomorrow COND

na-ndi-waan-e   ba-tent-a, awo
POSTHOD-1SG-find-FV.SBJV 2PL.CMPL CL6.DEM

na-ndi-<u>la</u>-ka-sik-a   ku-munzi."
POSTHOD-1SG-<u>NONCMPL</u>-DIST-arrive-FV CL17(LOC)-village

noku-talik-a-ko   oku-yaak-a-yaak-a.   Ku-man-a
COM.INF-begin-FV-CL17(LOC) INF-build-FV-build-FV NARR-finish-CMPL

ku-yaak-a-yaak-a,   nankumwi noku-y-a   mu-ku-tobel-a
INF-build-FV-build-FV again   COM.NARR-go-FV CL18(LOC)-INF-seek-FV

zokulya mu-bwiili.
food   CL18(LOC)-kind.of.wild.root

'Then she turned around again, saying "I'll build my shack [again]." And she went
with her little hoe. "Tomorrow if I find they've burnt it again, that's when I'll go all
the way to the village." And she busied herself building. When she finished building,
she went again [to the forest] to look for *obwiili* roots to eat.' (Namayoyo revision)

In at least one attested case, self-directed character speech has a narrative present inter-
pretation. In example (240), the character is wondering about the cause of current problems:

(240) *"chèchó chìyá bùyîmbà **chìlàndíkàsyá** òkùyèndà"*

"checho   chi-y-a   bu-yimb-a   **chi-<u>la</u>-ndi-kasy-a**
CL7.DEM CL7-go-FV.RC CL14-sing-FV CL7-<u>NONCMPL</u>-1SG-refuse.CAUS-FV

oku-yend-a"
INF-walk-FV

'This thing that's going along singing **is keeping me from** walking' (ZT2009Narr-
A5.GS.34-35, *Fumako*)

All of the above uses are consonant with the discussion of the non-completive forms, as
they are direct representations of imagined dialogue. *-la-* and *-Ø-* forms are also found in
non-quoted portions of the text. Here, they mainly occur with two patterns: with a prefix
se- or (less commonly) in relative clauses. I will discuss these in turn, before highlighting
the few *-la-* forms without *se-*.

When *-la-* appears in the narrative proper, it overwhelmingly co-occurs with the dis-
course-structuring prefix *se-* (sometimes *sa-*).[29] *Se-* may co-occur with present forms that

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[29]This marker is also used extensively in Lozi; the directionality of influence is unclear, although a Lozi
origin seems likely. A brief survey of Tonga and Ila sources (Smith 1964; Fowler 2000; Hopgood 1940) did

are unmarked, as well as presents with -*la*- and (-*li*-)-*ite*. Its discourse function appears to be one of boundary-marking. Speakers of both Lozi and Totela translate and explain it with expressions like "[that] is when", "the (very) next thing", "what followed after", "that's the time", and similar expressions. *Se*- thus marks preceding action as finished and a new section of the story as beginning.

The idea of "beginning" is evidenced also in speaker translations between Lozi and Totela. Translations of Totela narrative into Lozi occasionally inserted a construction with a verb meaning 'start' or 'begin', followed by an infinitive, in place of a *se*-marked verb with -*la*-.

(241)   a. *sakalayimba*

sa-ka-<u>la</u>-yimb-a

DM-CL12-<u>LA</u>-SING-FV

'then she sings' (Totela: *Namayoyo revision*)

b. *nikukala kuopela*

ni   **ku-kala**   ku-opela

and INF-begin INF-sing

'and then **she began** to sing' (Lozi: *translation of Namayoyo revision by KS*)

While a full analysis of the discourse functions of the *se*- marker is a topic for another study, it seems likely that *se*- marks an event or situation as immediately subsequent to the currently salient event or situation. When paired with non-completive -*la*-, it marks the onset of an incomplete situation nucleus. This may also explain uses as in example (242), with an achievement verb -*sika* 'arrive'. Because the situation nucleus (arrival) is punctual, and is represented as not yet complete (-*la*-), *se*- marks the beginning of the phase leading up to the arrival event.

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not turn up any uses of *se*-, but this (lack of a) finding is not conclusive.

In Lozi, *se* is in at least some cases a verbal prefix defined as 'already' (Jalla 1982:370) and (Kashina 2005), at least when combining with past-tense forms. Dictionary examples seem to indicate that the situation had commenced at the contextually-invoked perspective time:

(1)   ha ni yo kumbuluka, **se ni li** mwahali a mapolisa

'before I had time to realize it, **I was** surrounded by police'

(2)   na **se ni li** mwa nambo ya ku nyalwa. . .

'[I am no longer free, for] **I am** engaged to be married'

(3)   musali yani u itwezi, bati, **se ba mu yawekile** sifaha!

'that woman is pregnant, look **they have put** a necklace round her neck!'

The *se*-/*sa*- form alternation also deserves some comment. Distributional patterns suggest that at an earlier stage, the input form was *se*-, surfacing as *sa*- when coalescing with the 3sg. subject marker *a*-. However, in current usage, *se*- and *sa*- are at least somewhat interchangeable, although speakers occasionally correct *sa*- to *se*- in revisions when it precedes non-3sg subject markers.

(242) **se**tu<u>la</u>sika

       se-tu-<u>la</u>-sik-a
       DM-1PL-NON-CMPL-arrive-FV

       'we will soon arrive' (ZT2007Elic56, *translation of Lozi sentences*)

The narrative functions of *se*- with -*la*- then fall out naturally. -*se*- marks onset, and is only compatible with non-completive -*la*- (and -Ø-), in Totela, and so the effects in narrative are inextricably linked.

Nearly every song is introduced with *se*- as in example (241a) above and (243) and (244) here:

(243) *Sàlìkàìlè. Nàwó òmútwì* **sàù<u>láy</u>ìmbà**: [SONG]

       sa-li-ka-ile.   nawo   omutwi   **sa-u-<u>la</u>-yimb-a**:
       DM-PRES.STAT-DIST-go.ITE. COM.CL3.DEM CL3.head DM-CL3-<u>NONCMPL</u>-sing-FV:

       'There he goes. And that head [following him] **sings**:' [SONG] (ZT2009NarrA5.GS.27, *Fumako*)

(244) *Kùkàsìkàkô òkàtàntà òkàbùlùmùnà òkàbùlùmùnà. Òkézùzyà ámànkálàngà. Nàlyó èkìshíkìshì nòkùsìkà.* **Sàbà<u>láy</u>ìmbà**: [SONG]

       ku-ka-sik-a-ko   o-'ka-tant-a
       NARR-DIST-arrive-CL17(LOC) COM.NARR-DIST-climb-FV

       o-ka-bulumun-a   o-ka-bulumun-a.
       COM.NARR-DIST-knock.down-FV COM.NARR-DIST-knock.down-FV

       o-ka-izuzy-a   amankalanga. nalyo   ekishikishi
       COM.NARR-DIST-become.full.CAUS-FV CL6.basket   COM.CL5.DEM CL5.goblin

       noku-sika.   **sa-ba-<u>la</u>-yimb-a**:
       COM.NARR-arrive-FV DM-3PL-NONCMPL-sing-FV:

       'They [the children] got there [to the tree] and climbed up and furiously shook out the fruit. They filled their baskets. And that *ekishikishi* also arrived. Then the children **sing**:' [SONG] (ZT2009.NarrA9.GS.35-37, *Kumangwembya*)

Songs in Totela narratives punctuate scenes and depict character personalities and desire. They are also the means for invoking magical powers to provide solutions. When a character begins to sing, the story's action pauses, and audience members often sing along with the narrator. In these circumstances, a verb form that marks a subsequent action, or response, to previous narrative events (*se*-) and an incomplete process – the song will continue for some time before the action is resumed (-*la*-) – seems appropriate. Other verbs like -*kuwa* 'call' and -*liza* 'play (e.g. marimba)' also occur in this context.

The *se*- + non-completive construction also occurs on verbs depicting situations that result from previous parts of the narrative and that have duration extending over subsequent events, as in (245) with the unmarked non-completive form depicting a man who, haunted by

the head of his murdered child, frantically cuts off limb after limb. After he cuts off his leg, he continues walking with one leg (*sàyènzyà ìtèndè lyònkê*) until his next self-amputation. This excerpt is also immediately followed by a song.

(245)　*Aa! Nòkwìndá èchìbèlò kúkòsòlà kùsòwà . . .***Sàyènzyá** *ìtèndè lyònkê.*

aa!　　noku-ind-a　　echibelo　ku-kosol-a　　ku-sow-a
INTERJ　COM.INF-take-FV　CL7.leg　NARR-cut-FV　NARR-throw-FV
. . .**se-a-yenzy-a**　　　itende　　lyonke.
. . .DM-3SG-walk.CAUS-FV　CL5.FOOT　CL5.one [BODY PART GLOSSES]

'Aa! Then he took his leg and cut it off and threw it away. **Then he's walking** on a single leg.' (ZT2009NarrA7.GS.33-36, *Fumako*)

The temporal components of *se-* and the non-completive marker allow speakers to use them to pace narratives, as well, as predicted by Fleischman (1990). Adding a song significantly slows down the sequence of narrative events, possibly creating further suspense and excitement. The invited audience participation may also be signaled by the use of a non-completive form, which may be interpreted both as non-complete with respect to story time, and to respect to the time of narration.

Most other uses of non-completive inflection in narrative are relative clauses giving further information about the situation. In these cases, as above, a narrative marker noting merely a sequence of events is inappropriate. Expressing non-completion can signify that the situations are ongoing with respect to the story-internal perspective, as in (246).

(246)　*Kùmànà kùzàbìkà pèlè nòkákòlàmà kôkó* **èkálà***, kùmàlìbélà êñándà.*

ku-man-a　　ku-zabik-a　pele　no-ka-kolam-a　　　　koko
INF-finish-FV　INF-soak-FV　DM　COM.[INF]-DIST-ascend-FV　CL17(LOC).DEM
a-ikal-a,　　　　ku-malibela　　　　a-iñanda.
3SG-stay-FV.RC　CL17(LOC)-CL6.corner　CL6-CL9.house

'Finishing[NARR] soaking[NARR] [the millet] then she went up[NARR] to where **she stays**[PRES.RC], in the corner of the house [in the roof].' (ZT2009NarrA13.GS.50, *Kanyama*)

Aside from these more common uses, *-la-* and *-Ø-* non-completive forms appear occasionally in narratives and appear to serve particular speaker purposes, such as the following example, describing the failure of a new wife to cultivate:

(247)　*. . . okùmútwààlá kùmpìlì.* **À<u>lá</u>kàngwà***.*

oku-mu-twaal-a　　ku-mpili.　　　　**a-<u>la</u>-kang-w-a**
INF-3SG-carry-FV　CL17(LOC)-CL9.FIELD　3SG-<u>NONCMPL</u>-be.impossible-PASS-FV

'[Having brought her home]. . . he brought her to the fields. She **can't do it** [cultivate].'

In this example, the narrator seems to use the -*la*- form to shift perspectives, slow the story, and convey the surprised feeling of the husband about his new wife's incompetence (she turns out to be a bird).

In summary, non-completive forms are used in Totela narrative primarily to slow the pace, invite listener participation by empathizing with characters – "seeing" events from their point of view – and by singing along, and to describe situations that span temporally over other story events. Within quoted speech, it is used to convey character point of view, plans, and feelings about the unfolding action. Thus, while completives partition a narrative into episodes, non-completives provide pacing and continuity, functioning both in narrative- and real-world perspective to invite listener empathy and participation by marking situations as incomplete, and, therefore, still relevant.

When logistic regression is carried out on a test data set of narrative verbs outside of direct quotes, of the factors shown to be predictive of inflection (see 7.6.1), only the predictor variables "Last Before Song" and "Narrative Clause Type" are also significantly predictive of the use of non-completive forms. When uninflected verbs are removed from the test set, to test whether non-completive forms pattern significantly differently from other inflected forms, only "Last Before Song" is predictive.

This result is expected: verbs introducing songs almost universally take non-completive forms. Other uses of -*la*- within narrative are harder to analyze quantitatively, since they represent a speaker's stylistic choice. Narrative clause type is presumably predictive within the larger data set because it is highly predictive of inflection (vs. non-inflection) overall; when only verbs inflected for tense and aspect are considered, it ceases to be a distinguishing factor. Another factor expected to be predictive, given a larger data set, is "First In Episode", as these verbs are typically marked with completive -*a*-. See also 3.3.

4.5   Non-completion with -*la*-: a historical and comparative view

This section begins with a general discussion of -*la*- forms across Bantu, which seem to have their origin in "disjunctive" focus markers. The second part of the section deals specifically with Totela and its neighbors, discussing a possible grammaticalization trajectory from disjunctive to general non-completive. As in section 4.3.8, I argue that since both -∅- and -*la*- do not differ in their contrast with completive -*a*-, and that as the disjunctive/conjunctive contrast is lost, -*la*- is becoming a main-clause non-completive marker.

4.5.1   -*la*- and the disjunctive in Bantu

The morpheme -*la*-, reconstructed by Meeussen (1967:109) as "disjunct" *-*da*-, is rare across Bantu, occurring as -*la*- or -*ra*- in some languages, including Interlacustrine E languages[30],

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[30]These are listed as JE and JD by Meeussen and in Maho (2009).

D.60 (e.g. Ha), and in some M languages of Zambia (Nurse 2008:205-206; Nurse 2006:193-194); M languages with -*la*- listed in Nurse (2008) are M.42 (Bemba), M.54 (Lamba), and M.64 (Totela's close relative Tonga).[31] Its most common functions are marking present or progressive-like meanings, and marking "disjunctive" focus, where the focus is on the verb itself rather than its object(s). In Nurse's words,

> CONJUNCTIVE verb forms focus on a post-verbal complement/constituent, such as object, adverbial, second verb, or new material. [They contrast] with DIS-JUNCTIVE forms, which indicate that there is no special relationship between the verb and a following constituent. Emphasis is on the verb lexeme or one of its categories. The verb often stands alone following constituents being optional (Nurse 2008:116).

For example, in Bemba, contrasts such as the following can be made with -*la*-:[32]

(248) a. tu-peepa sekelééti
          1PL-smoke cigarettes
          'we smoke <u>cigarettes</u>, not a pipe'

       b. bá-mó   bá-la-lyá   ínsoka
          CL2-some CL2-PF-eat.PRS snake
          'some people actually <u>eat</u> snakes' (Sharman 1956:40 in Güldemann 2003:339)

The difference between these forms does not lie in marking of IDENTIFICATIONAL FOCUS, which Kiss (1998:245) notes must represent "exhaustive identification" of the entire subset of entities for which the predicate is true. Instead, they differ in the *scope* of focus. Disjunctive -*la*- is, in many languages, a marker of "predication focus" – i.e. focus on a lexical verb or "predication operator" marking tense, aspect, mood, or polarity (Güldemann 2003). Focus on an argument or adjunct, found with -Ø- forms, is called "term focus" in Güldemann (2003:332). Hyman & Watters (1984) note that tenses and forms otherwise not intrinsically focused – in contrast to e.g. imperatives, progressives, negatives, etc., which have intrinsic focus – are where the morphologically-marked focus contrast originates. The Totela case confirms this.

In languages where -*la*- appears to be purely a marker of predication focus, it may co-occur with a variety of tenses and aspects, as in Ha (JD.66):

(249) a. ba-Ø-ra-rim-a
          3PL-Ø-FOC-cultivate-FV
          'they cultivate'

       b. ba-á-ra-rím-ye
          3PL-P2-FOC-cultivate-FV
          'they cultivated' (Nurse 2006:193)

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[31]Southern Bantu zone S languages have a -*(y)a*- vs. -Ø- focus contrast (Güldemann 2003:337-338), which may also be related to -*la*- and -Ø-.

[32]Glosses are modified from Güldemann (2003). PF stands for "predication focus".

In other languages, -*la*- "disjunctive" morphemes have a present progressive reading contrasting with a habitual "conjunct" form, in addition to their focus uses. For example, in Rwanda (JD.61), disjunctive -*ra*- must be used in intransitive clauses where the verb is not followed by an adjunct. When, however, an adjunct is added, as in (250), the aspectual contrast surfaces:

(250)   a. **-*ra*- with no adjunct: habitual**

        aba-gabo ba-ra-kóra   / *aba-gabo ba-kora
        CL2-man CL2-PF-work.PRS / CL2-man   CL2-work.PRS

        'c'est l'habitude des hommes de travailler'
        'the men work'
        -*Ø*- with an adjunct: habitual

    b. aba-gabo ba-kora   mu mirimá
        CL2-man CL2-work.PRS in   fields

        'c'est l'habitude des hommes de travailler dans les champs'
        'the men work in the fields'

        -*ra*- with an adjunct: progressive

    c. aba-gabo ba-ra-kora   mu mirimá
        CL2-man CL2-PF-work.PRS in   fields

        'les hommes sont maintenent en train de travailler dans les champs'
        'the men are [now] working in the fields'
        (Overdulve 1975:94-95 in Güldemann 2003:339)

In Lamba (M.54), and in some JE.40 languages, -*la*- does not occur in contrast with an unmarked form, and is instead the focus-neutral main-clause present and/or present progressive (Güldemann 2003:354). In accordance with Güldemann (1996:236) and Güldemann (2003), Nurse suggests that the general present forms of -*la*- in languages such as Lamba developed out of Tonga-like systems, where the -*la*- form is disjunctive and the bare form (SM + stem + neutral FV) is conjunctive in focus. Lamba appears to have generalized -*la*-'s function, and the non-focus variant has been lost. (Nurse 2008:206; *Appendix 1*, p. 249).

With regard to languages where -*la*- specifically marks progressive aspect, Güldemann (2003:350) argues that because of its special discourse functions, (e.g. encoding "immediate relevance of the state of affairs"), the progressive is "inherently focused", and a focus > progressive grammaticalization process is natural:

> . . . as soon as a present gram which is vague with respect to progressivity is supplemented by a device marking predication focus, this more complex gram has a considerable likelihood of developing a reading of progressivity (Güldemann 2003:343).

In Ila (see also 4.5.2.2), -*la*- occurs in presents as well as in future forms, both near future and more remote future (where it is followed by -*ka*-). Nurse proposes that the disjunctive

-la- lost its disjunctive flavor and then extended to futures. Güldemann (2003:354) argues specifically that the Ila future meanings involve an extension from progressive *-la-*.

A similar form, *-laa-* is used for futures in some languages, including languages of the same region in Zambia where *-la-* is found (M.40-50-60). Because of their geographical distribution, Nurse sees as likely a historical relationship between these forms and disjunctive *-la-*. However, the difference in length, as well as some tonal differences, are as yet unexplained. Nurse wonders in a footnote whether *-laa-* forms could have origins in bimorphemic *-la-a* but does not pursue this line much further (Nurse 2008:253-256).

The next section deals with *-la-* specifically in Totela and its relatives, positing, as above, two possible pathways for the *-la-*/*-Ø-* distinction.

4.5.2 *-la-* and *-Ø-* in Totela and its relatives

Table 4.5 notes occurrences of *-la-* in Zambian and Namibian Totela varieties (K.41 and K.411, respectively in Maho 2009), and in close relatives Ila (M.63) and Tonga (M.64), as well as Lamba (M.54) in Zambia, and Fwe (K.402), Subiya (K.42), and Mbalangwe (K.401/K.42) in the Namibian Caprivi. The length of the Fwe future *-la-* is uncertain. F_1 and F_2 indicate near and distal futures, respectively.

	Pres	**F_1**	**F_2**
ZT	SM-**la**-R-a	SM-**la**-R-a	na-SM-**la**-R-a
Ila	SM-**la**-R-a	SM-**la**-R-a	SM-ka-**la**-R-a
Tonga	SM-**la**-R-a	SM-**la**-R-a	various
Lamba	SM-**la**-R-a	SM-aku-R-a	sM-ka-R-a
NT	SM-R-a	m(b)o-SM-R-e	ka-SM-R-e
Fwe	SM-R-a	mbo-SM-R-e	SM-**la**-R-a
Subiya	SM-R-a	mu/mbo-SM-R-e	SM-za-ku-R-a
Mbalangwe	SM-R-a	mu-SM-R-e	ka-SM-R-e

Data from: Crane 2007 fieldnotes (NT, Fwe, Subiya, Mbalangwe); Jacottet 1896-1901 (Subiya); Carter 2002 (Tonga); Hopgood 1940 (Tonga); Nurse 2008 (Ila, Lamba); Fowler 2000 (Ila); Smith 1964 (Ila)

Table 4.5: TA forms with *na-* or *-la-* in ZT or NT, and the corresponding forms in related languages

The table shows that *-la-* occurs in present and F_1 ($\approx$ hodiernal future) forms in all of the Zambian and none of the Caprivi languages, although it does occur as a F_2 in Fwe. In general, the chart suggests strong areal influences in all but F_2 forms. Why there should be this multiplicity of F_2 expression is unclear, but may be related to the great variety of modal stances towards the future (e.g. intention, (un)certainty, desire, etc.)

Since the status of Fwe F_2 *-la-* is unclear, the following sections focus on *-la-* forms in the Zambian languages Tonga, Ila, and Lamba.

4.5.2.1   *-la-* in Tonga

-la- is listed as a present/future form in Tonga by Carter (2002). Tonga retains the conjunctive/disjunctive distinction; Carter (2002:45) summarizes the contrast as follows:

> A striking feature of the Tonga verbal system is the existence of a 'strong' and a 'weak' variant for many verb forms. The strong form emphasises the verb, the weak form emphasises the following item:

| strong: | balátumá lúgwalo | 'they are **sending** a letter' |
| weak: | batúmá lùgwalo | 'they are sending **a letter**' |

4.5.2.2   *-la-* in Ila

In Ila, the disjunctive/conjunctive contrast between *-la-* forms and bare forms seems to have been lost; bare forms apparently only appear in subordinate clauses (Fowler 2000; Smith 1964).[33]

Like in Tonga and Totela, *-la-*-marked verbs in Ila may have continuous/progressive, near future, or habitual readings. In at least two Ila references (Smith 1964; Fowler 2000), it is presented primarily as a future that may also have present and progressive readings.

Also, unlike in Totela (and, apparently, Tonga), Ila *-la-* combines with a variety of other aspectual-type markers in future tenses. All of the examples in table 4.6 (copied from a larger table in Nurse 2008:*Appendix 1*, p. 252) would be ungrammatical with the corresponding Totela morphology:[34]

	Imperfective **-aku-**	Persistive **-ci-**	Anterior **-ile**
F_1 **-la-**	tu-**la-aku**-p-á *we will be giving*	tu-**la-aku-ci**-p-á *we will still be giving*	tu-**la-aku**-p-**elé** *we will have given*
F_2 **-la-ka-**	tu-**la-ka-aku**-p-á *we will be giving*	tu-**la-ka-aku-ci**-p-á *we will still be giving*	tu-**la-ka-aku**-p-**elé** *we will have given*

Table 4.6: Ila future aspects with *-la-*

It may be, then, that *-la-* is in fact becoming a more general future in Ila.[35]

4.5.2.3   *-la-* in Lamba (M.54)

As noted above, *-la-* in Lamba is a general present or progressive:

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[33]Fowler (2000:857) writes that the "basic present" form without *-la-* is also used in "questions"; it is not clear what form these questions take and whether the verb should be regarded as being a main clause verb.

[34]Note that not all of the TA semantics have been worked out carefully for these forms, as they are from a study focused on tone.

[35] Although nothing can be said with certainty about Fwe F_2 *-la-*, the process there may have gone even further: *-la-* marks F_2 but no presents or other futures.

(251) tu-la-cita
       1PL-PRES-do
       'we do' (Nurse 2006:194)

These forms appear to have become general presents with the loss of the formerly contrastive -Ø- marked forms (Güldemann 1996:236).

4.5.2.4 Sidenote: *-la-* in Namibian Totela

As seen in table 4.5, Namibian Totela does not have disjunctive *-la-*, but does use *-la-* in hodiernal imperfectives. [36]

(252) ndi-la-samb-i
       1SG-HOD.IPFV-bathe-FV
       'I was bathing'

It is not clear whether the forms have the same origin; if so, it would be an example of *-la-* grammaticalizing not to a present progressive, but to a past progressive. It may be significant that there does not seem to be a corresponding prehodiernal imperfective/habitual form with *-la-*; hodiernal imperfectives seem to be only amenable to a progressive reading. A possible push would be the loss of the conjunct/disjunct contrast, and the availability of other present progressive forms.

4.5.2.5 Summary and grammaticalization pathways

Recall that in Zambian Totela, -Ø-marked non-completive forms cannot be used without a following argument or adjunct. In this sense, they retain some of the disjunctive flavor of Tonga *-la-*. However, main-clause -Ø- appear to be far less common than *-la-* forms, suggesting a developing division of labor between main-clause non-completive *-la-* and subordinate clause non-completive -Ø-, although the split is not yet complete. Table 4.7 summarizes the distributions of *-la-* in Namibian and Zambian Totela, and in their Zambian relatives with *-la-*.

Following Güldemann (2003), I posit that Tonga represents the older situation, with a disjunctive/conjunctive contrast. When that contrast is lost, either via the progressive or otherwise, but the *-la-* form is retained, a situation like that of Lamba and Ila results, where *-la-* is the unmarked main-clause form. Zambian Totela seems to be midway on this journey, and both -Ø- and *-la-* are non-completives, contrasting with completive *-a-*. In Namibian Totela, the *-la-* form has been lost – assuming it was originally there – in non-completives; the -Ø- marker fulfills this function. It might also be speculated (as in section 4.5.2.4 above) that hodiernal imperfective *-la-* in Namibian Totela arose if *-la-* was interpreted as a progressive/imperfective marker, and became specialized for the hodiernal past imperfective as other present progressive constructions arose. In any case, the Zambian languages discussed here display a spectrum of *-la-* grammaticalization.

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[36]This form appears with "completive" *-a-* in some of my notes, as well. What conditions the variation is not clear.

	Disjunctive contrast?	Uses
ZT	lessening	Non-completive
Ila	no	Present progressive / habitual; future with various aspects ($\approx$ non-completive?)
Tonga	yes	Present; F_1
Lamba	no	Present progressive / habitual
NT	no	Hodiernal imperfective (progressive)

Table 4.7: Main-clause uses of *-la-*:

4.6 Conclusion: (non-)completion in Totela and Bantu

In this chapter and the previous one, I have discussed two markers, *-a-*, which marks nuclear completion, and *-la-*, which marks non-completion, each with respect to the conversationally salient perspective time. With durative predicates, nuclear completion coincides with completion of the entire situation, and so *-a-* functions like a typical past or anterior marker, and *-la-* indicates that the situation is underway or in the future with respect to perspective time. With change-of-state verbs, where the nucleus terminates at the commencement of an entered state, *-a-* may indicate either that the state still holds at perspective time, or that it, too, has terminated by perspective time. Pre-nuclear *-la-* may again indicate a future situation, or a current change *into* the coda state; it may not indicate the coda state itself.

The privileging of nuclear completion over other types of perfective aspectual relationships in Totela may be indicative of a larger trend within Bantu to emphasize the durative/ change-of-state distinction in situation type. Across Bantu, many verbs denoting current states are actually inchoative (change-of-state) in nature (Nurse 2008), and many "anterior" aspect markers convey either a past situation (with durative verbs) or a current state (with change-of-state verbs). Like *-a-*, these markers seem to situate situation *nuclei*, and not the entire situation, with respect to perspective time.

Kershner (2002:chapters 4-5) presents a similar analysis for Chisukwa (M.202, Malawi) markers *-ku-* and *-ite*. Chisukwa *-ite* is a marker of nuclear completion and has the "anterior" temporality described above,[37] though not necessarily a sense of current relevance:[38]

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[37]Note that Kershner's situation type categorization is extremely nuanced and complex. The "change-of-state" verbs in the following examples are called "punctive transitional" by Kershner; other verbs encoding a result state also have a present state reading with *-ite*. See Kershner (2002) for a discussion of the relationship of *-ite* to other situation types.

[38]DEF in the gloss stands for "default" in Kershner (2002).

(253) a. **Durative verbs**:

a-Ø-fik-ite
3SG-DEF-arrive-CMPL

's/he arrived' (earlier today) (Kershner 2002:138)

b. **Change-of-state verbs**:

ulusoko   lu-Ø-iisul-ite
CL11.river CL11-DEF-swell-CMPL

'the river is swollen' (is at flood stage now) (Kershner 2002:140)

Unlike what has been shown for Totela *-a-*, Kershner does not indicate that *-ite* in Chisukwa can also locate a state coda prior to perspective time. This is accomplished instead with the addition of "post-terminative" (PoT) *-aa-*,[39] as in (254):

(254) ulusoko   lu-aa-iisul-ite
CL11.river CL11-PoT-swell-CMPL

'the river was swollen' (was at flood stage) (Kershner 2002:140)

While Chisukwa *-ite* denotes nuclear completion, *-ku-* asserts non-completion. Like Totela *-la-* (and *-Ø-*), *-ku-* can have present and future readings:

(255) a. **Durative verbs**:

a-ku-sab-a   munyaanja
3SG-NONCMPL-swim-FV

's/he is swimming (now) in the lake'
's/he will swim in the lake' (Kershner 2002:103)

b. **Change-of-state verbs**:

amalima   ga-ku-ton-a
CL6.bean CL6-NONCMPL-ripen-FV

'the beans are becoming ripe'
'the beans will ripen' (Kershner 2002:104)

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[39]In Chisukwa, "post-terminative" *-aa-* also references the right edge of a situation nucleus, rather than the situation as a whole. The difference between *-aa-* and *-ite* is not totally clear to me, but seems to be that *-aa-* selects the "immediately preceding time unit" to perspective time, usually speech time, although other time units may be selected (Kershner 2002:100), resulting in an immediate past reading with *-aa-...-a* (e.g. *(a)-aa-sab-a munyaanja* 's/he has just swum in the lake' (Kershner 2002:97). *-ite*, in contrast, seems to mark the completion itself, which occurred in the "current time unit" (Kershner 2002:137). The two forms have slightly different interactions with situation type that are too complex to discuss here. Combining the two allows for the expression of completion in an immediately preceding time unit (rather than the current time unit), resulting in a yesterday/last week/last month reading, or an 'already' reading with *-aa-...-ite*: *tu-aa-cha-ite imiyeenda* 'we washed the clothes' (yesterday) or 'we have already washed the clothes' (Kershner 2002:99).

Kershner's analyses, along with the suggestive facts about many other Bantu anteriors, indicate that more attention should be paid to the event nucleus and its completion status in the analysis of Bantu (and Niger-Congo) tense and aspect marking and its discourse-structuring effects. It may be that non-Niger-Congo languages also pay crucial attention to situation completion, but completion is defined differently because of differences in situation-type construal.

Chapter 5

Past and Future: Dissociative Domains

5.1   Introduction

Recall the following table from chapter 3 (repeated here as table 5.1), outlining a proposed analysis of Totela's system of completion and dissociation marking:

Form	Proposed Function	Example	
-ka-	Dissociative (Past)	ndà**kà**nèngà	'I danced' (yesterday or before)
-a-	Completive	nd**à̱**nèngà	'I danced' (today)
-la-	Non-completive	ndì**là**nèngà	'I am dancing/will dance' (today)
na-	Dissociative (Future)	**ná**ndìlànèngà	'I will dance' (tomorrow or after)

Table 5.1: Proposed system of completion and dissociation in Totela

The preceding two chapters showed that *-a-* and *-la-* are best analyzed not as markers of tense, but as relating the discourse-salient perspective time to the point of completion of a situation's nucleus. In this chapter, I examine the "prehodiernal" and "posthodiernal" markers *-ka-* and *na-*, and argue that these markers are not aspectual, but rather invoke "dissociative" domains that are excluded from the day of perspective time. As temporal dissociators, they are markers of tense in the sense of Botne & Kershner (2008:152-153), relating the currently evoked cognitive world to another cognitive world, marked as *not* included in the current discourse world, in which a referenced situation holds. When co-occurring with *-ka-* and *-na-* (as in table 5.1), *-a-* and *-la-* indicate that at some point in the dissociative domain, which may be further temporally specified with adverbials, the situation's nucleus was completed, or not completed, respectively.

In section 5.2, I give an overview of some relevant theoretical issues for the analysis of -*ka*- and *na*-. Section 5.3 presents details about the forms and distribution of -*ka*- and *na*-, followed by arguments for their dissociative functions. Section 5.4 discusses the occurrences of the morphemes in narratives, arguing that these occurrences are in line with, and present further evidence for, a dissociative analysis. Finally, 5.5 situates the markers historically and cross-linguistically: evidence from closely-related languages suggests wider validity of a dissociative analysis for *na*- and -*ka*-.

5.2 Theoretical Background

This section discusses facets of past and future marking in Bantu and cross-linguistically. First, an overview is given of the complexities of tense marking in Bantu (5.2.1). Next, I discuss analytical challenges particular to the future (5.2.2). Finally, I give a summary review of Botne & Kershner's 2008 framework for analyzing tense, based on the notions of associative (here-and-now) and dissociative (not here-and-now) discourse domains.This framework will be crucial in my analysis of -*ka*- and *na*-. When appropriate for the following discussion, I include information about the relevant details for Totela.

5.2.1 Tense in Bantu

5.2.1.1 Distinctions in temporal distance

Bantu languages are remarkable for their multiple degrees of past reference. Languages may distinguish, for example, HODIERNAL (today) and PREHODIERNAL (prior to today) past tenses. Some appear to distinguish up to four or five past tenses, including immediate, hodiernal, HESTERNAL (yesterday), PREHESTERNAL and remote pasts.

Such temporal distinctions are particularly "salient" in Bantu (Dahl 1985:121); relatively little work exists on remoteness marking outside of Bantu languages. However, as Dahl (1985:121) states, "[i]t is possible that temporal distance is at least marginally relevant for TMA categories in the majority of human languages".[1] That is, although little attention has been paid to the issue, temporal distance marking may in fact be crucial cross-linguistically.

It is especially interesting that Bantu languages have such complex systems for marking temporal distance because most Niger-Congo languages are "aspect-prominent"; only a few have fully developed tense systems at all (Nurse 2008:126).

Future systems are often "less finely graded" than corresponding past systems (Fleischman 1982:22). That is, languages tend to make more morphologically-indicated temporal distinctions within the past than in the future. This tendency can be seen somewhat dramatically in Nurse's (2008) survey of 100 Bantu languages, including languages from all

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[1]Dahl does describe a number of non-Bantu languages with tense distinctions based on temporal distance in Dahl (1985), listing more in Dahl (2009). The overwhelming majority of such languages are found in sub-Saharan Africa (including Bantu), New Guinea, and the western part of South America, although the hodiernal distinction is not exclusive to these areas.

groups. While no languages had zero morphologically-indicated pasts, nine languages had no dedicated future marking. Most commonly (47%), the languages surveyed had one future tense; it was most common for the languages to have two (41%) or three (31%) pasts. In general, "most Bantu languages have multiple pasts, whereas only half have multiple futures (Nurse 2008:89). Nurse reports similar percentages from within his larger database of 210 Bantu languages (Nurse 2008:88-89). Nurse's results are summarized in table 5.2 and figure 5.1.[2] Figure 5.1 makes it clear that it is most common for a language to have one morphologically-expressed future, and that the greatest number of languages have two or three morphologically-indicated pasts.

# tenses (N)	# languages with N pasts	# languages with N futures
0	0	9
1	17	47
2	41	25
3	31	16
4	10	1
5	1	2

(Nurse 2008:89)

Table 5.2: Numbers of past and future tense distinctions in Bantu languages
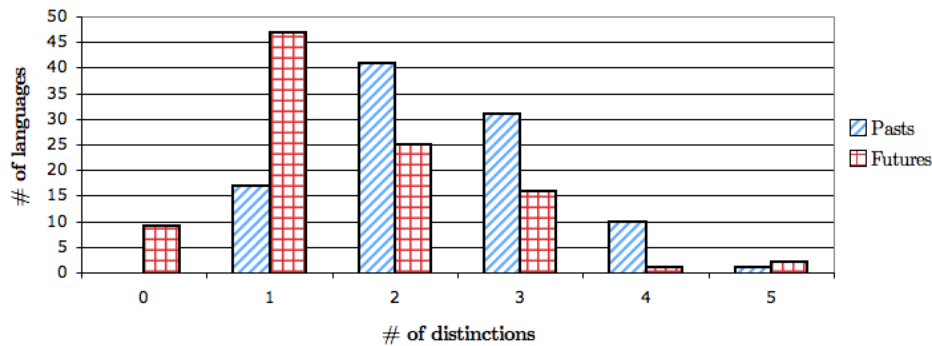
Figure 5.1: Bantu languages in Nurse's (2008) 100-language sample by number of distinctions in the past and future(based on Nurse 2008:89)

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[2]It should be noted that, due to available data, this chart may not take into account distinctions between e.g. near past tenses and anterior aspects (Nurse 2008:88). Also, Nurse notes some doubt about the data and analyses for at least the Narrow Bantu languages listed as having five pasts or futures.

5.2.1.2 Flexibility in temporal-distance marking systems and the role of temporal dissociation

In many cases, reference times for markers of 'hodiernal' and 'hesternal' (etc.) pasts in Bantu need not rigidly correspond to events of 'today' and 'yesterday': reference times may be flexible and related to the type of situation discussed (Nurse 2008). Last year's harvest may in many languages be discussed using the hesternal past; other cyclic events appear to be referenced similarly. For example, Southern Sotho (S.33) has a "Recent Past" marker that speakers may also use to describe events that happened long ago, if they wish to express that those events still have current relevance:

(256) Morena Moshoeshoe **ofalletste [recent past]** Thaba-Bosiu ka-1824
'Chief Moshoeshoe **moved [recent past]** to Thaba-Bosiu in 1824' ([and] his legacy or contribution to the cultural patrimony was and still is highly significant) (Machobane 1985:18, cited and explicated as Morolong 1978 in Fleischman 1989:21, ex. 29)[3]

Nurse (2008:93) notes that most reference grammars are silent on the point of rigidity or flexibility of time-marking systems; most grammars with any discussion whatsoever on this point describe more flexible systems. Their silence, along with textual examples of flexible reference found in several grammars that claim more rigid systems, leads Nurse to posit that flexible systems may be more common in Bantu. In addition, the apparent ungrammaticality of certain markers with the "wrong" temporal adverbs may be an elicitation effect, with the offending construction actually felicitous in the proper discourse context (Dahl 2008:24). However, there is still at least some variability from language to language in the amount of flexibility allowed.[4]

Totela's system is rigid in the following way: temporal *-ka-* and *na-* cannot reference times that are included in the day of perspective time (usually, the day of utterance). However, the reverse does not hold. In some cases, prehodiernal pasts and posthodiernal futures may not be marked with *-ka-* or *na-*. For example, 'last year', can be both of the following, both with literal meaning 'the year that finished':

(257)   a. *chìlìmò chàk̲àmánà*

chilimo   cha-k̲a-man-a

CL7year CL7.CMPL-PREHOD-finish-FV

'last year' (ZT2007Elic87)

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[3]Perhaps similarly, the Castilian Present Perfect, generally used in Castilian only with events in the recent past, also appears with long-ago events if the speaker is still affected:

(1)   Fijate que mi padre **ha muerto [perf]** hace diez años.
'You know, my father died [PERF] ten years ago' (and his death is still very much with me).

(Fleischman 1989:21, ex. 30)

[4]There may also be flexibility from speaker to speaker.

b. *chìlìmò chàmánà*

chilimo   cha-man-a

CL7year CL7.CMPL-finish-FV

'last year' (ZT2007Elic87)

Still, situations described that are excluded from the day of perspective time usually take temporal distance marking. More details and analysis of the Totela's distance marking flexibility, and its asymmetricality, are found in 5.3.2.1.

An interesting consequence of flexible systems is that formally distinct tenses may in fact overlap temporally: a hesternal past, for example, might describe last year's harvest, while the remote past would be used to describe a singular event taking place at the same time. Botne & Kershner (2008:161-166) discuss such a situation in Nugunu (A.62). In Nugunu, P_1 (the most recent past) is used to reference times earlier that same day. P_3, can only be used for time reference "before yesterday" (Botne & Kershner 2008:161). P_2, on the other hand, may used for any "preceding relevant time unit", including the previous day, year, harvest, ruler's reign, and so forth (Botne & Kershner 2008:161-63). An example of P_2 reference is given in (258).

(258) ofuŋe yúnu yó í idényée   gɛdɔŋɔ nyómá sɛ́ɔ́dɔ

chef   ce-là 3SG P_2 diriger.P_2 village an   dix

'ce chef-là dirigea le village dix ans' (sous entendu, c'est le prédécesseur de celui qui règne maintenant)

'that chief ruled the village for ten years' (understood that it is the predecessor of the one who rules now) (Gerhardt 1989:321, cited in Botne & Kershner 2008:163)

As a result, P_3 may describe an event of two days prior to utterance time, while P_2, conceived as a more recent past, may refer to a situation many years prior to utterance time.

5.2.2   Problems in the analysis of the future

Linguistic analysis of the future is fraught with controversy, and its status within tense systems is widely debated. First, future tense is obligatorily marked less frequently than is past tense:

> The general impression is that future time reference is less consistently marked than past time reference... Among the majority of languages that have categories labeled as FUT, it is fairly common to find some variation between that category and others, in particular unmarked forms or present tenses (Dahl 1985:109).

In English, the possibility of referring to future situations with the simple or progressive present appears to depend on whether the situation is "scheduled"[5] (see e.g. Bybee *et al.* 1994:249), as seen in the contrast between (259) and (260).

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[5]Or the speaker is otherwise certain that the situation will occur, perhaps because the speaker exerts volitional control over the relevant situation(s).

(259) We're eating turnips for dinner tomorrow.

(260) #It's raining at dinnertime tomorrow.

In addition to being less frequently marked, future systems typically have fewer metric distinctions than do corresponding past systems in the same language, as noted in 5.2.1.1.

Nurse also notes that future morphology is much less diachronically stable than past morphology across Bantu (Nurse 2008:92-93).

Observations like these have led many to the conclusion that in the typical case, the past, present, and future do not form a truly tripartite tense system. Instead, they argue, the future should be seen as somehow "secondary" (see e.g. Fleischman 1982). On the other hand, Dahl's (1985) survey found that most languages have a future category. In fact, more than 50% of sentences with future reference in the survey were given morphological future marking, making future one of the "three categories that are most often marked morphologically" (Dahl 1985:105). Still, even Dahl's results indicate that future tense, unlike past tense, is often not obligatorily marked. Thus, there is some imbalance between past and future tenses.

This difference is often attributed to epistemic differences. The future inherently refers to situations that have not yet been realized in the actual world; it deals with predictions rather than certainties. As noted by Comrie (1985), it is uncommon to find grammatical forms that refer to future time only and do not have some modal component. Sometimes the modal uncertainty is overtly encoded: Namibian Totela, for example, marks future tense with a *ka-* prefix and a subjunctive final vowel *-e*. With reference to the English Future, Levinson suggests that counterexamples to claims of purely temporal semantics abound (Levinson 1983:78). The future's inherent modality has led to much controversy over the basic semantics of future marking.

There have been two basic approaches to dealing with the modal semantics of the future. The first (e.g. Partee 1973) argue that the English Future ('will') is not a future at all, but a present-tense modal (e.g. 'if you will'). That is, modal features of the future should be considered primary, equal to or superceding any temporal elements.

The second approach recognizes the modal component, but argues that it is not primary, and that the future should be recognized as a true tense. Comrie (1985), for example, argues that there is evidence of pure future tense uses of English 'will'.

In conditional protases (261), future time cannot be expressed with 'will'; instead, the present is used. However, 'will' is perfectly acceptable in the same context if it has a modal (present or habitual) reading (262). Comrie argues that this contrast shows that 'will' has two separate readings in English; one of these readings, he claims, can be described as a distinct grammatical future tense category (Comrie 1985:48).

(261) If Marian **gets** (#will get) a grant, she **will** return to Goma. (*future in protasis*)

(262) If John **will drink** a chocolate milkshake with dinner, he **will** stay up all night. (*modal reading of conditional clause*)

Similarly, Dahl argues that while the prototypical future tense has an element of intentionality, the "essential semantic feature" is that of a prediction about future time. In

English, for example, future tense cannot be used to express intention "with no element of prediction" (263), although prediction without intention is perfectly possible, as in (264) (Dahl 1985:105-106):

(263)   #I **will go** out with you tonight, but I can't because I need to wash my hair. (*intention without prediction*)

(264)   The weather forecaster says it **will rain** tomorrow. (*prediction without intention*)

In general, future prediction is "a more constant element" of future marking than are intention or other modal categories, Dahl concludes that "the traditional view of the Future as a tense can thus be defended" (Dahl 1985:106).

The existence of multiple futures, as in Bantu, apparently distinguished only by temporal distance, may be taken as additional evidence for the existence of pure future tense (as it is by Comrie 1985). However, in at least some cases, even these distinctions can be disputed. An example might be Basaa (A.43), which has at least three ways of referring to future situations: a "distant" future; a "general" future referring to "tomorrow" or "some days" hence; and a "near" or "about to" future, which is a possible interpretation of the identical "present" form (Hyman 2003a:281). In a purely metrical system, one would expect the nearest futures to be able to co-occur with adverbials indicating temporally proximate time spans such as 'today', with such co-occurrence lessening with more distal future tenses. Counter to this expectation, however, the Basaa "general" future cannot co-occur with the adverbial 'today', while the distant future can, although it typically has a more distant sense than the general future (Botne & Kershner 2008:175). In Basaa, then, distinctions in future use cannot be explained under a purely temporal account.

Aside from issues of modality and its status within the tense system, the future, like the present, exhibits interactions with aspect and situation type in many languages. In Russian, for example, imperfectives have a three-way past/present/future opposition, while perfectives are somewhat more restricted in their two-way past/non-past distinction. Non-past perfectives generally receive a future reading only (Dahl 1985:80).

In summary, analysis of the future is complex due to factors such as its inherent uncertainty, its variable marking, and its interactions with modality, all of which Totela's posthodiernal future exhibits to some degree.

5.2.3   Discourse domains and dissociativity

As noted in section 5.2.1.2, some overlaps in temporal distance within systems may be explained with reference to cognitive discourse domains, rather than by actual temporal distinctions.

Recall from previous chapters that Botne & Kershner's model of tense is based on two domains, defined in terms of time, space, and reality status. The domain model is repeated here as table 5.3.[6]

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[6]Botne & Kershner (2008) define the P-domain as "contemporal", "denoting a primary, prevailing experiential past and future perspective" (Botne & Kershner 2008:155; 153). Botne (2010) refers to it as

	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 5.3: Cognitive domains in Botne & Kershner

Botne & Kershner account for the Nugunu data described in 5.2.1.2, where P_2-marked verbs may by assigning the two tenses to different domains: the P_2 "situates an event ... in an anterior time unit of the P-domain", while the remote past shifts the time referred to to the dissociative D-domain. That is, P_3-marked verbs represent cognitively distant situations, while P_2 marks situations as immediately prior to the current time unit. Likewise, Nugunu futures pattern according not only to temporal distance but also speaker certainty. F_2-marked situations are typically located one or two days after the day of utterance, but can be further in the future, if occurrence is certain. F_3 situations, in contrast, may convey a sense of speaker uncertainty or of temporal distance (Botne & Kershner 2008:161, 165).

Botne & Kershner give a similar explanation for the remote past in Basaa (A.43), which, unlike the generally less-distant Hesternal Past, can refer to events that took place on the day of utterance. Botne & Kershner (2008:174-176) argue that the Remote Past places events in the D-domain, giving "a subjective sense of distance or separation of the event with respect to the speech event", rather than denoting a minimum distance in actual time.

Botne & Kershner also offer a domain-based explanation for the Basaa future data described in 5.2.2. Recall that the Basaa general future cannot co-occur with 'today', but the distant future can. Botne & Kershner locate the general future in the associative domain, while the distant future marks dissociation. Within the associative domain, the general future marks a metrical time distinction, and is therefore not compatible with events of 'today'. The distant future, situated in the dissociative domain, is not constrained by metrical time, but indicates "a subjective separation and distance; the event is in another 'world'" (Botne & Kershner 2008:176). Hence, cognitively dissociated but temporally proximate situations may be given distant future marking in Basaa.

Thus, according to Botne & Kershner (2008:211), temporal distance morphology may mark METRICAL REMOTENESS, distinguishing fixed temporal distances within a domain, either associative or dissociative (Botne & Kershner 2008:211); or it may mark DISSOCIATIVE REMOTENESS "imbued by projecting an event into a D-domain". The specific temporal

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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.

differences – both concrete and subjective – differ from language to language.

In the next sections, I present information about the *-ka-* and *na-* markers in Totela, and argue that an analysis of the markers as temporal domain shifters (following Botne & Kershner's notions of dissociative domain invocation) offer the best explanation of their distributions, temporal interpretations, and occurrences in narrative.

5.3   Dissociative markers in Totela: *na-* and *-ka-*

5.3.1   Morphosyntax

5.3.1.1   Prehodiernal *-ka-*

The prehodiernal past affirmative is formed with the marker *-ka-*. Prehodiernal *-ka-* follows the completive form *-a-*, which fuses with the subject marker. Because it prototypically refers to situations completed in the prehodiernal past, *-ka-* is glossed as PREHOD.

(265)   *ndàk̀àyèndà*

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

      'I walked' (yesterday or before)

Like past marker *-a-*, prehodiernal *-ka-* surfaces as H preceding H-toned verbs, due to leftward H-tone shifting. It does not trigger HTA on the syllable to the left of itself. When followed by a toneless root such as *-wamba* 'speak', *-ka-* is also toneless (266a).   When followed by a H-toned root, such as *-bona* in (266b), *-ka-* is realized with a H tone.[7]

(266)   a.   *ndà**k̀à**wàmbà*
          ndà-**k̀à**-wàmb-à
          1SG.CMPL-<u>PREHOD</u>-speak-FV

          'I spoke' (yesterday or before)

      b.   *ndà**ká**bònà*
          ndà-**ká**-bòn-à
          1SG.CMPL-<u>PREHOD</u>-see(H)-FV

          'I saw' (yesterday or before)

The negation of the prehodiernal past is formed similarly to that of the hodiernal past: Negative marker *ta-* precedes the bare SM, which is followed by the past marker *-na-* as well

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[7]Where tone patterns are highlighted, they are given both in the standard orthography and on morpheme divisions.

as the prehodiernal *-ka-* marker. The occurrence of *-ka-* apart from past *-a-* in the negative motivates its analysis as a separate morpheme.[8]

(267)   a. *tàndìnàkàwâmbà*
            tà-ndì-nà-<u>kà</u>-wâmb-à
            NEG-1SG-PST-<u>PREHOD</u>-speak-FV
            'I didn't speak'

        b. *tàndìnàkábònà*
            tà-ndì-nà-<u>ká</u>-bòn-à
            NEG-1SG-PST-<u>PREHOD</u>-see-FV
            'I didn't see'

Totela also uses *ka* morphemes with several other functions. Two that seem most likely related in function to prehodiernal *-ka-* are a *ka-* prefix in prehodiernal imperfectives, and a distal *-ka-* prefix.

A *ka-* morpheme occurs at the beginning of prehodiernal imperfectives, suggesting that synchronically, *-ka-* marks (dissociative) prehodiernality and is unspecified for aspect. Imperfective aspect is conveyed through placement of *ka-* and through a special tone pattern, as in (268).

(268)   **kà**ndìyêndà

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

         'I was walking / I used to walk'

In addition, a distal *-ka-* marker can be used throughout Totela's tense and aspect system. Distal *-ka-* and prehodiernal *-ka-*are distinct morphemes, able to co-occur (269). In main clauses, prehodiernal *-ka-* (270) and distal *-ka-* (271) have identical tone patterns and can be distinguished only contextually.[9]

(269)   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)

---

[8]This analysis assumes that completive *-a-* always merges with the subject marker, raising the question of whether the negative forms might actually be formed with SM-na-a-ka. This cannot be excluded, but it may be noted that *-a-* always occurs on the subject marker in other cases, and that in past anteriors (see 7.2.1), *-a-* occurs before a *-na-* form.

[9]As a result, they are sometimes hard to distinguish when occurring in recorded speech, particularly in narratives.

(270)   Prehodiernal -*ka*-:
        *ndà**kà**sàmbà*

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

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

(271)   Distal -*ka*-:
        *ndà**kà**sàmbà*

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

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

In relative clauses, distal and prehodiernal -*ka*- trigger distinct tone patterns, illustrated with toneless -*waana* 'find' in (272) (see also appendix C). Affirmative relative clauses have a penultimate H (presumably anticipated from a final H) on the verb stem, surfacing on the first mora of long vowels. With prehodiernal -*ka*-, the stem tone is as expected in a relative clause (272a). With distal -*ka*-, a falling tone[10] surfaces on the subject marker, rather than as a penultimate stem H, as in (272b).[11] When prehodiernal and distal -*ka*-'s co-occur in relative clauses, the falling tone surfaces on prehodiernal -*ka*-, and the stem itself may or may not take a penultimate H as in standard relative clauses (272c).

(272)   a. Prehodiernal -*ka*- in relative clause:
            . . . *ndà**kà**wáànà*
            ndà-**kà**-wáàn-à
            1SG.CMPL-PREHOD-find-FV.RC

            '. . . [that] I found' (yesterday or before)

        b. Distal -*ka*- in relative clause:
            . . . *ndâ**kà**wààn**à*
            ndâ-**kà**-wààn-à
            1SG.CMPL-DIST-find-FV.RC

            '. . . [that] I found' (elsewhere from here)

---

[10]The falling tone occurs with corresponding lengthening, which is predictable and thus not represented in the orthography.

[11]This tone patterning is suggestive of an earlier serial verb construction, as in 'I went find'. A falling tone also occurs on a subject marker with completive -*a*- in the past anterior/pluperfect, e.g. **ndâ***nàlúkà* 'I had woven' (see 7.2.1). In relative clauses with monosyllabic stems, the H surfaces on the verb itself, e.g. *bàwâ* '[they] who fell'. The other known occurrence of a pre-stem grammatical falling tone is with past *na*- and monosyllabic stems in hodiernal past negatives and imperfectives , e.g. *tàndìn**âw**ì* 'I didn't fall'.

c. Distal -*ka*- and prehodiernal -*ka*-in relative clause:

... ndà***kâkà****wààrià* or ndà***kâkà****wáànà*

ndà-**kâ**-**kà**-wààn-à   *or* ndà-**kâ**-**kà**-wáàn-à
1SG.CMPL-PREHOD-DIST-find-FV.RC   1SG.CMPL-PREHOD-DIST-find-FV.RC

'...[that] I found' (yesterday or before, elsewhere from here) (ZT2009Elic139)

These three *ka* forms in Totela are, then, distinct. Their similarity in form and function, all marking some kind of distance, temporal or spatial, is returned to in 5.3.2.1.[12]

5.3.1.2   Posthodiernal *na-*

Posthodiernal futures are indicated with a *na-* morpheme that prefixes to the subject marker. *na-* may merge with vocalic subject markers as detailed in 2.2.4.2, although this merger is not always complete in careful speech.

In affirmative main-clause indicatives, the posthodiernal future also includes the *-la-* marker.

(273)   *nándìlátwà*

ná-ndì-lá-tù-à
POSTHOD-1SG-NONCMPL-pound-FV

'I'll pound' (tomorrow or later)

Posthodiernal *na-* occurs without *-la-* in all other moods and clause types, including future subjunctives/hortatives (274a),conditionals (example (274b), first clause), imperatives (example (274b), second clause), relative clauses (274c), negatives (275) and other non-indicative contexts.

(274)   a. *nêzè*

na-iz-e
POSTHOD.3SG-come-FV.SBJV

'let him come [tomorrow]' (ZT2009NarrA16.GS.35, *Kanyama*)

b. *íngà ésì námùkàyèkô námùkàtùmé àbánìchè*

inga esi   **na-mu-ka-y-e-ko**,
PART COND POSTHOD-2PL-DIST-go-FV.SBJV-CL17(LOC)
na-mu-ka-tum-e   abaniche
POSTHOD-2PL-DIST-send-FV.SBJV CL2.CHILD

'so tomorrow if you go, send some children' (ZT2009NarrA8.GS, *China Muningi*)

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[12]Several other *ka* morphemes occur in Totela. One is a verbal prefix co-occurring with persistive *-chi-* to mean something similar to 'when X', or 'as soon as X', e.g. ***kàmùchìmánà...*** 'as soon as you finish...' (ZT2009NarrA8.CN, *China Muningi*). The source of this marker is not clear. Another is a class 12 agreement marker, clearly not related. These forms are not pursued further in this chapter.

c. ìjìlò   chì-nzí   ˈná-mù-li-â?
tomorrow CL7-what POSTHOD-2PL-eat-FV.RC
'what will you eat tomorrow?' (ZT2009Elic36)

Negatives are formed with the negative auxiliary *tali* and occur with subjunctive marking (final *-e* and a special tone pattern):

(275)   tà-lí   ˈná-ndì-yèmbél-è
NEG-be POSTHOD-1SG-herd-FV.SBJV
'I won't herd'

5.3.2 *-ka-* and *na-* as markers of dissociation

In this section, I argue that both *-ka-* and *na-* are domain markers, shifting the current discourse to domains that are temporally – as well as epistemically or otherwise cognitively – removed from here-and-now reality. Prehodiernal *-ka-* moves the temporal domain to one or more days before the currently evoked domain; posthodiernal *na-* shifts to one or more days in the future. Botne & Kershner (2008:152-153) define "tense" precisely as shifts between temporal domains. Tense marks inclusion or exclusion in the time of the current "cognitive world". In chapters 3 and 4, I argued that *-a-* and *-la-* are not markers of tense, but instead indicate completion or non-completion, respectively, in the currently evoked cognitive domain.

Section 5.3.2.1 presents evidence for the exclusion of *-ka-* and *na-* marked situations from the domain associated with perspective time. 5.3.2.2 elaborates upon *-ka-* and *na-*'s temporal properties, demonstrating that their main function is to dissociate from the domain of perspective time, and they do not make aspectual contributions. Thus, they are true tense markers, in the sense of Botne & Kershner (2008). Also noted is the possibility of shifts in perspective time. Finally, in 5.3.2.4, I argue that properties of human cognition support the link between dissociative domains and non-hodiernality.

5.3.2.1 Exclusion from the associative domain

This section presents evidence that *-ka-* and *na-* function primarily to mark exclusion of the situation referenced from the associative domain at perspective time. The argument has two main components. First, relevance- and epistemic-related variability of their uses are highlighted as evidence for cognitive dissociation from here-and-now reality. Second, connections are drawn to similar forms with dissociative functions.

As noted in 5.2.1.2, there is some flexibility in the use of *-ka-* and *na-* for non-hodiernal situations. While situations on the day of perspective time are judged ungrammatical with these markers, prehodiernal pasts occur occasionally without *-ka-*, in constructions such as *chìlìmò chàmánà* 'last year' (ZT2007Elic87), where the year is finished in relation to the current perspective time. In example (276) (repeated from (140)), which describes the state in which I found a village church. The initial encounter took place several weeks before the

utterance. However, the situation has not changed by the time of utterance, and the state in which I encountered the village church is relevant at perspective time. I argue in chapter 3 that -*a*- is a completive marker, and not a perfect with relevance effects. In this example, it is not the result state that is highlighted at utterance time – indeed, the church situation itself is independent of my finding it. Instead, it seems that the completion of the finding situation is represented as prior to perspective time, but still within the cognitive domain of perspective time, because the situation under discussion, the busyness of church life, is part of the here-and-now world.

(276) *Chwale njeyeyi inchechi **mwawaana** inywa ba. . . ba-Thera. **Mwatuwaana** muma-pulogalama 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
mwa-tu-waan-a mu-mapulogalama   a-mangi
2PL-Thera   2SG.CMPL-1PL-find-FV CL18(LOC)-CL6.program CL6-many

'And so that's the church you find [here today], Miss Thera. You found us in the midst of a lot of programs.' (ZT2007Narr44.VK)

Two similar examples, also repeated from chapter 3, are given in (277) and (278). In (277), nuclear completion (see chapter 3) is on the day of utterance, and -*ka*- is not used. In (278), as in (276), the results of the situation referenced have not changed by the time of the day of utterance, and they are relevant within its temporal domain. Thus, a -*ka*- form is not used.

(277) *tw<u>à</u>yèndá àmázùbà òbílè, ndétùsìkà*

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

'we('ve) walked two days, now we're just arriving' (ZT2009Elic67, repeated from (121))

(278) *kono batili Mulimu <u>atutusa</u>*

kono batili   Mulimu   <u>a</u>-tu-tus-a
but   no/INTERJ CL1A.God CL1A.<u>CMPL</u>-1PL-help-FV

'and oh my, truly, God (has) helped us' (ZT2007Narr18.VK, repeated from (139))

While prehodiernal pasts without -*ka*- as in the above examples are relatively uncommon, speakers regularly produce and accept posthodiernal futures without *na*-. Both (279a) and (279b) are perfectly acceptable.

(279) a. *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)

b. *ìjìlò <u>ná</u>ndìlà yá kùmpìlì*

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

'tomorrow I'm going to the fields' (ZT2009Elic34)

A clue to the pragmatic difference may be seen in the following narrative example of quoted speech, consisting of a threat promised to be carried out the next day if the addressee's report turns out to be false. The addressee has just been labeled a sneak and liar by the speaker, so the speaker is expressing both belief that vengeful action will be necessary, and a pledge to carry it out.

(280)   *Ésì tándiìbónè ìjìlò, **ndìlàkútùlàwùlà***

esi   ta-ndi-bon-e   ijilo   **ndi-la-ku-tulawul-a**
COND NEG-1SG-see-FV.SBJV tomorrow 1SG-NONCMPL-2SG-pierce.ITER-FV

'if I don't see tomorrow [what you told me I'd see], I'll stab you all over' (ZT2009-NarrA38.CN, *Chibize*)

Compare this to a typical quote as in (281). In this example, rather than wreak revenge on some children who burnt down her shack, an old hag has decided to rebuild her house, an indication that she does not believe further property crime to be a certainty. She uses *na-* to describe her plans – to go to their village and seek revenge – in case of future incident.

(281)   *"Ìjìlò ésì **nándìwáànè** hápè bàtèntà, âwò **nándìlàkàsìká** kùmùnzì.*

ijilo	esi	**na-ndi-waan-e**	hape	ba-tent-a,
tomorrow	COND	**POSTHOD**-1SG-find-FV.SBJV	again	3PL.CMPL-burn-FV

awo	**na-ndi-la-<u>ka</u>-sik-a**	ku-munzi
CL16(LOC).DEM	**POSTHOD**-1SG-NONCMPL-DIST-arrive-FV	CL17(LOC)-CL3.village

'"tomorrow if **I find** they've burned it again, that's when **I'll get to** the village"' (ZT2009NarrA26.MM.72-73, *Namayoyo*)

The difference between (280) and (281) seems to be one of epistemic certainty, or strength of speaker expectation. The speaker in (280) fully expects, even vows, that the action will be carried out. The speaker in (281), on the other hand, hopes that her trip to the village will not be necessary, and is placing her bets on the children not returning to burn her home again. She, unlike the first speaker, uses a *na-* form. *na-*, then, seems to have some correlation with the expression of eventualities deemed less than certain from the point of view of perspective time. Future references without *na-*, by default in the associative domain, seem to be more certain.

Speaker comments, for example, that speakers using *na-* futures "are still hesitating" (ZT2009Elic39) corroborate the proposed difference in epistemic certainty between post-hodiernal futures with and without *na-*, evidencing another facet of dissociation connected

with the *na-* marker. Also, while 'last year' can occur either with or without prehodiernal -*ka*-, 'next year' appears in my data only as *chilimo chiizite*, literally 'the year that is coming', with the -*ite* marker discussed in chapter 6. The coming years are scheduled and fully expected (even already on their way), and do not appear with less-certain *na-*.

Thus, -*ka*- is related, to at least some degree, to the exclusion of situation completion in the cognitive domain of perspective time. It may be absent when the completion is construed as relevant within the domain of perspective time. -*na*-, on the other hand, suggests a lack of epistemic certainty about situations referenced.

We see, then, an asymmetry of distribution. Situations extending beyond the day of perspective time may be referred to without the use of -*ka*- or *na*-, but -*ka*- and *na*- may not be used hodiernal situations. This makes it different from the Cameroonian language Basaa (A.43; see also Bitjaa 1990:416ff), for example, where the most distant past (P_3) and future (F_3) are felicitous with temporal adverbial *lĕn* 'today', as in (282) and (283).

(282) **P_3 remote past (Basaa)**

    a. *a **Ø**-wɔ́ í gwet bí 14*
        'she died[**P_3**] in the war of [19]14 [WWI]'

    b. *a **Ø**-pám băŋ **lĕn***
        'she went out[**P_3**] ages ago **today**' (Botne & Kershner 2008:174)[13]

(283) **F_3 remote future (Basaa)**

    a. *nsaŋgw **a**-bá í ŋkɔŋ ísí kɛ́l yādá*
        'there will be[**F_3**] peace in the world one day'

    b. *a **a**-kɛ há **lĕn***
        'she will leave[**F_3**] later today' (Botne & Kershner 2008:175)

On the other hand, as far as can be gleaned from my sources, Totela's kind of asymmetry is not uncommon. For example, the Nugunu (A.62) distant past (P_3) discussed in 5.2.1.2 may be used for situations "before yesterday" (Botne & Kershner 2008:161) and apparently only overlaps with P_2 when P_2 refers to a "preceding relevant time unit" prior to the day before perspective time (Botne & Kershner 2008:161-163). Botne & Kershner make no mention of P_3 referring to, e.g., subjectively distant situations of the day of perspective time, as in Basaa.

The possibility of bidirectional flexibility in temporal reference systems calls for further typological study. In Totela, the asymmetry might be explained by several factors.

First, as discussed in 5.3.2.4, the hodiernal domain has strong salience as the domain associated with perspective time. Prehodiernal pasts without -*ka*- appear to depict situations whose completed states hold and are relevant enough at perspective time that they are represented as obtaining within the domain of perspective time. Similarly, posthodiernal futures without *na*- are certain enough at perspective time that they may be represented as heading towards completion at perspective time, although the ultimate completion is

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[13]The tone pattern on *lên* 'today' has been corrected from Botne & Kershner (2008). P_3 does not trigger metatony, and the correct tone pattern is LH, i.e. *lĕn* (Larry Hyman (pc).

not on the day of perspective time. Neither of these necessarily requires extension of the domain of perspective time beyond hodiernality, since the situations' effects (i.e. states of nuclear completion), or their (virtual) onsets overlap with the day of perspective time. Conversely, use of *-ka-* and *na-* excludes the discourse content from the day of perspective time. Use of *-ka-* or *na-* for situations within that domain therefore creates a clash and remains infelicitous.

It may also be noted that use of prehodiernal *-ka-* for hodiernal situations would result in homophony with distal *-ka-*, discussed in the next paragraph. In any case, the distribution of *-ka-* and *na-* in Totela is not incompatible with an analysis of dissociativity.[14]

The asymmetry in the optionality these markers in Totela, along with that of possibly similar systems in other languages, deserves detailed cross-linguistic investigation, particularly with respect to its pathway of development: Does temporal rigidity develop first and then loosen (expected if markers grammaticalize from temporal adverbs), or does temporal rigidity develop out of originally subjective temporal distance marking (expected, perhaps, if markers grammaticalize from distal markers)?

Further evidence for dissociativity of *-ka-* and *na-* may be found found in morphology. Strikingly, as noted in 5.3.1.1, the morpheme that marks spatial distance from the discourse reference point is formally identical to prehodiernal *-ka-* (see examples (270) to (269) above). Recall that Botne & Kershner (2008) list three kinds of dissociation: temporal, spatial,

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[14]It should be noted that, somewhat surprisingly, hodiernal past statives and especially *-ite* forms with change-of-state verbs are negated with prehodiernal *ka-* when used imperfectively, as in (1). Example (2) shows that *-ite* forms cannot be used with past *-na-*. In (1c), then, a prehodiernal form is recruited to fill a morphological gap. Section 7.3.1 discusses further the use of imperfective *ka-* with hodiernal states, suggesting that its use in such contexts may be related to the expected permanence of states.

(1)   a.   *ndìnàtábà*

       ndi-na-tab-a
       1SG-PST-become.happy-FV

       'I was happy' (earlier today) (ZT2009Elic122)

   b.   **kanditabite sunu*

       *ka-ndi-tab-ite   sunu
       PREHOD.IPFV-1SG-become.happy-ITE today

       (intended): 'I was happy today' (ZT2009Elic122)

   c.   *tàkándìtàbìté sùnù*

       ta-ka-ndi-tab-ite   sunu
       NEG-PREHOD.IPFV-1SG-become.happy-ITE today

       'I wasn't happy today' (ZT2009Elic122)

(2)   **ndinachisitwe*

     *ndi-na-tab-it-w-e
     1SG-PST-hurt-ITE-PASS-ITE

     (intended) 'I was sick' (earlier today) (ZT2009Elic34)

and reality-based. In Totela, both temporal and spatial dissociation are marked with *-ka-*, which indicates both separation in time (prehodiernality) and in space (location other than "perspective place"). .

Connections between temporal distance and spatial distance are attested cross-linguistically (e.g. Bybee *et al.* 1994:103, Dahl 1985:125). Although the historical development was likely not simultaneous (see 5.5 below), the morphological similarity of the forms in Totela is worthy of note.

Slightly more tenuous, but still noteworthy, is the possible connection between post-hodiernal *na-* and a counterfactual past prefix *na-*, as in (284).

(284) *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)

Because *na* occurs in many contexts in Totela and other Bantu languages, few conclusions may be drawn from the homophony. Both are likely descended from comitative *na* 'with, and', which cross-linguistically takes at least ten different grammaticalization paths (Heine & Kuteva 2002:79-90).

In any case, it is suggestive that both *-ka-* and *na-* are morphologically similar to other markers with dissociative meaning: distal *-ka-* ('not here'), and counterfactual/irrealis *na-* ('not real'). *-ka-* and *na-* mark temporal dissociation, and may be related to other dissociative markers, as well. As shown in section 5.5.2, dissociative-like uses are evident for similar markers in languages closely related to Totela.

5.3.2.2   Temporal properties of *-ka-* and *-na-*

Location and length of situation time   Both *-ka-* and *na-* are illicit when used with situations represented as holding on the day of perspective time. The connection between hodiernality and temporal domain boundaries is discussed in 5.3.2.4. Beyond exclusion from the hodiernal domain, there are few restrictions on the time periods that *-ka-* and *na-* can refer to, which may be long ago or in the distant future, yesterday or tomorrow, as shown for future situations with *na-* in (285) and (286).

(285) ìjìlò   <u>ná</u>-ndì-<u>là</u>-y-á   kù-mpìlì
       tomorrow POSTHOD-1SG-<u>LA</u>-go-FV CL17(LOC)-CL9.fields
       'tomorrow I'll go to the fields' (ZT2009Elic34)

(286) *oyu, esi <u>na</u>be omukulu nalaamba amakande aMachile*

oyu   esi   <u>na</u>-b-e   omukulu
3SG.PRON COND <u>POSTHOD</u>.3SG-become-FV CL3.old.person
na-la-(w)amb-a   amakande a-Machile
<u>POSTHOD.</u>3SG-NONCMPL-speak-FV CL6.story CL6-Machile

'when he is an old man, he will tell stories about Machile' (ZT2006Elic32)

With both *na-* and *-ka-*, the time spans of situations may similarly vary, from (near-) instantaneous (287) to a period lasting numerous years (288).

(287) ...*ndà<u>kà</u>wààná òmùntù nàlyâ*

    ...**nda-<u>ka</u>-waan-a**   omuntu   na-li-a
      1SG.CMPL-<u>PREHOD</u>-find-FV CL1.person sit.CL1-eat-FV

    '...I came upon a person [who was] eating' (ZT2009Elic29)

(288) ***twà<u>kà</u>chìswá èzìlìmò zòbílè***

    twa-<u>ka</u>-chis-w-a   ezilimo zo-bile
    1PL.CMPL-<u>PREHOD</u>-hurt-pass-FV cl8.year cl8-two

    'we were sick for two years' (ZT2009Elic67)

The length of situation time is also unimportant for marking with *na-*, as shown in (289), with a nearly instantaneous predicate, and (290), with a predicate of long duration.

(289) *<u>ná</u>mùlàkàmúkwààtà*

    <u>na</u>-mu-la-ka-mu-kwaat-a
    <u>POSTHOD</u>-2PL-NONCMPL-DIST-3SG-catch-FV

    'you'll catch her' (ZT2009NarrA11.VB.41, *Lobwa, Lobwa*)

(290) *oyu, esi <u>na</u>be omukulu nalaamba amakande aMachile*

    oyu   esi   <u>na</u>-b-e   omukulu
    3SG.PRON COND <u>POSTHOD</u>.3SG-become-FV CL3.old.person
    na-la-(w)amb-a   amakande a-Machile
    <u>POSTHOD</u>.3SG-NONCMPL-speak-FV CL6.story CL6-Machile

    'when he is an old man, he will tell stories about Machile' (ZT2006Elic32, repeated from (286))

Thus, both *-ka-* and *na-* appear to have few temporal restrictions aside from lack of hodiernality, suggesting that their primary temporal role is to mark non-inclusion in the day of perspective time.

Aspectual specifications Unlike (non-)completive markers, *-ka-* and *na-* make no reference to the internal temporal structure of situations. Because they locate the times referred to outside the day of perspective time, their use consequently corresponds with completion (*-ka-*) or non-completion (*na-*) at perspective time. However, they do not specifically reference nuclear completion.

One piece of evidence for *-ka-* and *na-*'s lack of reference to nuclear completion is their co-occurrence with *-a-* and *-la-*, respectively, as detailed in 5.3.1. Recall the argument in

chapter 3 that -*a*- marks completion of a situation's nuclear phase. Chapter 4 proposed that -*la*-, in contrast, was originally a focus marker, and appears to be coming to indicate non-completion of the nucleus.

As shown in 5.3.1, -*ka*- co-occurs with completive -*a*-, and *na*- co-occurs with non-completive -*la*- in affirmative realis main-clauses. Further examples are given in (291) and (292).

(291) Prehodiernal -*ka*-:
       *nd**àkà**yèndà*

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

       'I walked' (yesterday or before) (repeated from (270))

(292) **<u>ná</u>**-ndì-**lá**-yèmbèl-à
       <u>POSTHOD</u>-1SG-NONCMPL-herd-FV
       'I'll herd' (tomorrow or later)

On the other hand, a prehodiernal *ka*- prefix can occur without -*a*- in imperfective contexts (see also 5.3.1.1):[15]

(293) **kà**ndìyêndà

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

       'I was walking / I used to walk' (repeated from (268))

Also, completive -*a*- is absent from prehodiernal negatives, as in (294).

(294) *tàndìnàkàwâmbà*

       tà-ndì-nà-<u>kà</u>-wâmb-à
       NEG-1SG-PST-<u>PREHOD</u>-speak-FV

       'I didn't speak' (repeated from (267a))

These possible co-occurrences suggest that the functions of -*ka*- and *na*- differ from the (non-)completion-marking roles of -*a*- and -*la*-. If they carry the same meaning, they are redundant when they co-occur. Also, if they indicate distinct time frames, a semantic clash would be expected if two markers were used together. Conversely, the absence of completive -*a*- in negatives suggests that -*ka*- plays a role – not captured by past marker *na*-, which also occurs in hodiernal negatives – that differs from that of completive -*a*- and is still required

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[15] *na*- also occurs without -*la*- in, for example, non-indicative clauses, but this cannot be used as evidence either way because, as discussed in 4, verbs that are not marked for completion (-Ø-marked) also indicate non-completion.

with negation. The lack of *-a-* marking in past negatives is expected. Negated predicates do not negate nuclear completion in particular, but the situation as a whole. However, expression of dissociative *-ka-* is necessary to evoke the correct domain in which a situation can be asserted not to have occurred.

Instead of marking (non-)completion, then, *-ka-* and *na-* are temporal dissociative markers, working in tandem with *a-* and *-la-*. For example, *-a-* indicates that a situation nucleus reached completion. *-ka-* situates that completion in the prehodiernal domain. This confluence of features results in canonical "perfective" readings, where situations seem to be viewed from the "outside", rather than with the "internal" perspective of the imperfective. This can be seen clearly with stative predicates, as in (295), where the state is asserted to last for a specified time period, or in (296), where stative *-pona*, 'live', is used inchoatively, describing the outcome of (e.g.) a period of sickness that could have ended in either life or death.

(295) **twàká**chìswá èzìlìmò zòbílè

    twa-ka-chis-w-a   ezilimo zo-bile
    1PL.CMPL-PREHOD-hurt-pass-FV cl8.year cl8-two

    'we were sick for two years' (ZT2009Elic67) (repeated from (288))

(296) *bakapona*

    ba-ka-pon-a
    3PL.CMPL-PREHOD-live-FV

    'they lived' (e.g. they were sick, but they didn't die as expected, but instead, turned the corner towards recovery)[16] (ZT2007Elic100)

Similarly, by virtue of not directly relating perspective time to situation completion, *-ka-* does not have the potential for a continuing state reading as does completive *-a-* in an associative context, again resulting in past perfective readings as in (297a), which contrasts with (297b). (297b) is not marked for dissociative domain and allows a continued state reading.

(297)   a. *wakataba ijilo?*

         wa-ka-tab-a   ijilo?
         2SG.CMPL-PREHOD-be(come).happy-FV yesterday

         'were you happy [at any time] yesterday?' (ZT2006Elic56)

   b. cf. *wataba?*

         wa-tab-a?
         2SG.CMPL-be(come).happy-FV

         'are you happy?' (ZT2006Elic56)

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[16]Cf. imperfective *kabapona* 'they lived [used to live]' in which, in the absence of context, the subjects are assumed to be no longer living.

A speaker wishing to indicate further events that took place *within* the time of happiness, surprise, sickness, or living would use the dissociative prehodiernal imperfective form, e.g. *kàndìtábà* 'I was happy'. With completive *-a-*, dissociative *-ka-* does not allow this kind of situation-internal access, but this is a consequence of completive marking with *-a-* rather than dissociative marking with *-ka-*.

Evidence further suggesting that *-ka-* itself does not contribute perfective marking is the segmentally identical *ka-* prefix, used in prehodiernal imperfectives, which, as noted above, also shifts the discourse domain from the here-and-now, and cannot co-occur with completive *-a-*. Instead, it occurs with the bare subject marker and a special tone pattern on the root.[17]

Furthermore, situations marked with *-ka-* and completive *-a-* may be habitual, occurring regularly over a period of time in the past, as shown in (298) and (217).[18] A similar future habitual is seen in (290).

(298)   [Context: we used to get money now and then]
        awa twakawaana amali, twakawula omulola

        awa   twa-ka-waan-a   amali,   twa-ka-wul-a
        cl16.loc(dem) 1PL.CMPL-PREHOD-find-FV cl6.money 1PL.CMPL-PREHOD-buy-FV
        omulola
        cl3.soap

        'when(ever) we got money, we bought soap' (ZT2007Elic87, adapted from Dahl 1985:Q102)

(299)   [Context: last year, every day I would see you weaving]
        múnsìkúnsìkù ndákámìwàànà nàmùlúkà

        munsikunsiku nda-ka-mi-waan-a   na-mu-luk-a
        every.day   1SG.CMPL-PREHOD-2PL-find-FV SIT-2PL-weave-FV

        'Every day I found you weaving' (ZT2009Elic29)

With posthodiernal *na-*, aspectual contrasts appear to be neutralized, as seen in the temporal clauses in (300). In (300a), the situation in the temporal clause (running) is interpreted as ongoing at the time of the main clause situation. In (300b), in contrast, with achievement verb *-sika* 'arrive', the main clause situation occurs at the point of arrival, i.e. at nuclear completion.

(300)   a. *ésì nándìlàwúkè, nándìlàwàànà òmùntù nàlyâ*

            esi   na-ndi-lawuk-e,   na-ndi-la-waan-a
            COND POSTHOD-1SG-run-FV.SBJV POSTHOD-1SG-NONCMPL-find-FV
            omuntu   na-li-a
            CL1.person SIT.3SG-eat-FV

            'when I am running, I will find a person eating' (tomorrow or after) (ZT2009-Elic29)

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[17]See 7.3 for more on imperfectivity in Totela.

[18]It should be noted that *-ka-* is not compatible with the habitual *-ang-* extension (see chapter 2).

b. *ísè*[19] <u>ná</u>*ndìsíkè* <u>ná</u>*ndìlèèzà kùmìwàànà nàmúlyâ*

    ise   <u>na</u>-ndi-sik-e   <u>na</u>-ndi-la-iz-a

    COND <u>POSTHOD</u>-1SG-arrive-FV <u>POSTHOD</u>-1SG-NONCMPL-come-FV

    ku-mi-waan-a   na-mu-li-a

    INF-2PL-find-FV SIT-2PL-eat-FV

    'when I arrive, I will come to find you eating' (tomorrow or after) (ZT2009Elic29)

Also possible with *na-* is the persistive ('still') marker *-chi-*, as in (301).

(301)   *ijilo* <u>na</u>*ndichiikele mumunzi*

    ijilo   <u>na</u>-ndi-chi-ikel-e   mu-munzi

    tomorrow <u>POSTHOD</u>-1SG-PERS-stay-FV.SBJV CL18(LOC)-CL3.village

    'tomorrow I will still stay/be staying in the village' (ZT2007Elic77)

Dissociativity and aspect-marking, then, are separate functions in Totela. Prehodiernal *-ka-* expresses perfective aspect due to its co-occurrence with completive *-a-*, and posthodiernal *na-* is unspecified for aspect.[20]

Location of perspective time   I have already noted that both *-ka-* and *na-* indicate that the temporal domain of the situation referenced is outside of the day of perspective time, usually utterance time. Perspective time is not obligatorily equated with utterance time, however, as illustrated in (302) and (303) below. As noted in chapter 3, when perspective time is linked with utterance time, *-ka-* is used to describe all situations before the day of

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[19]Some speakers tend to use *ésì* 'when, if', and some *ísè*. The choice appears to be stylistic.

[20]A paradigm fulfilling future imperfective functions does exist, although it appears rarely in my corpora:

(1) *ìjìlò ésì* **ndɛ́ꜝkúlyà** <u>ná</u>*mwîzè*

    ijilo   esi   **nde-ku-li-a**   <u>na</u>-mu-iz-e

    tomorrow COND 1SG.FUT.IPFV-INF-eat-FV <u>POSTHOD</u>-2PL-come-FV.SBJV

    'tomorrow, come while **I'm eating**'

This form appears to be acceptable for both hodiernal and posthodiernal futures.
The paradigm with a H-toned root such as *-lya* 'eat' is as in (2):

(2) Paradigm with H-toned *-lya* 'eat'
    1SG   ndɛ́ꜝkúlyà
    2SG   wɛ́ꜝkúlyà
    3SG   ɛ́ꜝkúlyà
    1PL   twɛ́ꜝkúlyà
    2PL   mwɛ́ꜝkúlyà
    3PL   bɛ́ꜝkúlyà

With a toneless root, the forms are segmentally identical, but because no H tone shifts to the *-ku-* prefix, there is no downstep, e.g. *wékùyèndà* '[while] you are walking'.

utterance time; however, when the perspective time has been "relocated" to a previously invoked discourse domain, -ka- is no longer used for situations completed in that domain, as in the final clause of (302a). In (302b), the first two clauses are linked to utterance time. The speaker arrived (before the day of utterance) on Tuesday. The speaker's discovery is also indicated as being before the day of utterance. At this point, the perspective time shifts to the time of discovery, and the complement clause, communicating that the person in question had died, is marked as either on (302a) or before (302b) the day of discovery.[21]

(302)   a. [Context: the person described died on the morning of the speaker's arrival]
     *. . . ndàkàmùwààn̄à **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') (ZT2009Elic84)

   b. [Context: the person described died on Tuesday; the speaker arrived on Wednesday] *ndàkàsìká lwàtátù; ndàkàwààn̄à **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]' (ZT2009-Elic84)

The choice of hodiernal or prehodiernal marking at least sometimes privileges the perspective of the addressee, as in this letter, composed by me with a team of Totela editors. Although the situations described took place on the day of writing (*lwaSanu*, Thursday), I was instructed to use the prehodiernal past because the addressee would be reading the letter the next day.

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[21]Another example without perspective time shift is (1), where the imperfective sets the temporal frame and prehodiernal -*ka*- describes an event within that frame. Both situations are represented with respect to perspective time of utterance; the perspective time does not shift. However, the situative relative clause does have shifted perspective time. (See chapter 7 for more on situative aspect.)

(1)   **àwà kándìlàwúkà, ndà<u>kà</u>wààná** *òmùntù nàlyâ*

   awa   ka-ndi-lawuk-a,   nda-<u>ka</u>-waan-a   omuntu   na-li-a
   CL16.LOC(DEM)   PREHOD.IPFV-1SG-run-FV   1SG.CMPL-<u>PREHOD</u>-find-FV   CL1.person   sit.CL1-eat-FV

   'while **I was running** [e.g. **yesterday**], **I came upon** a person [who was] eating' (ZT2009Elic29)

(303) *Iñolo lyenu **twakalibona** ijilo lwaSanu … Onse **twakasuwa.***

> … Iñolo   lyenu   **twa-ka-li-bon-a**   ijilo
> cl5.letter cl5.2sg(poss) 1PL.CMPL-PREHOD-REFL-see-FV yesterday
> lwaSanu…   O-nse **twa-ka-suw-a.**
> cl11.Thursday cl6-all 1PL.CMPL-PREHOD-understand-FV

> 'Your letter, we got it yesterday, Thursday [the day of writing]. We understood
> everything.' (ZT2009Elic165)

In narratives, shifts in perspective time are the norm. Once the dissociative domain of narrative time has been established through -*ka*- marking, -*a*-marked forms are used as events are described from a narrative-internal perspective. See section 5.4 for more details.

5.3.2.3 Summary of analysis

In summary, both *na*- and -*ka*- behave as shifters of temporal domain. They are thus tense markers in the sense of Botne & Kershner (2008). They are linked as well with epistemic uncertainty (*na*-) and less direct relevance at perspective time (-*ka*-). That is, they may be associated both with tense (temporal dissociation) and with more modal dissociation.

Other markers related to aspect, completion, and modality can operate within dissociated domains. A simple pictorial representation of dissociative domain marking is given in (304), which presents basic diagrams for uses of prehodiernal dissociative -*ka*- with durative -*nenga* 'dance' and change-of-state -*komokwa* 'be surprised'.[22] The perspective time (PT) is in the associative domain, or current cognitive world, of the utterance (labeled P-domain). The lines connecting the domains symbolize use of -*ka*- projecting out of the P-domain, into a dissociative domain (labeled D-domain) and assert that a particular situation reached nuclear completion in that domain. Running timelines through each domain suggest that situations obtain across a time span within their respective domains.

(304) a. *ndàkànèngà*

> nda-ka-neng-a
> 1SG.CMPL-PREHOD-dance-FV

> 'I danced'

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[22]For a more complex general illustration, taking into account also different views of the movement of time (or movement through time), see Botne & Kershner 2008:153. Botne & Kershner do not depict timelines running through dissociated temporal domains, but rather show only time-related movement within the P-domain, and between the P-domain and D-domains. Botne & Kershner (2008:153)) portray a timeline running between the domains, indicating that they are construed as temporally related.
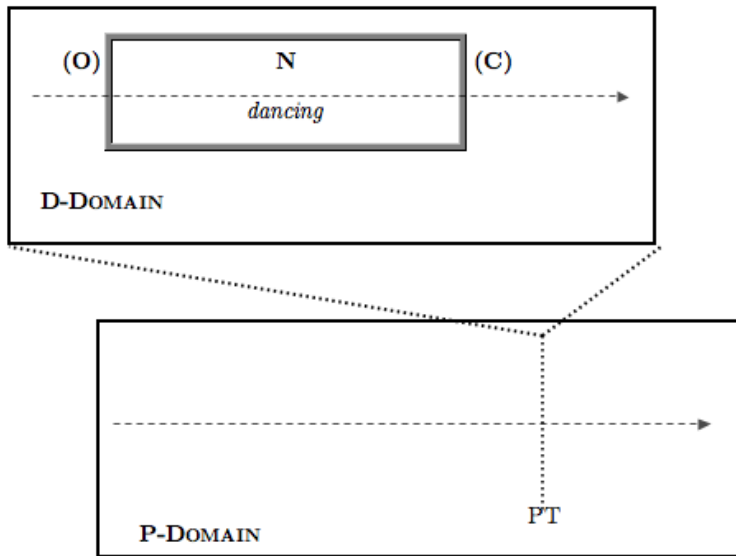
b. *ndàkákòmòkwà*

nda-<u>ka</u>-komok-w-a

1SG.CMPL-<u>PREHOD</u>-surprise-PASS-FV

'I got surprised'
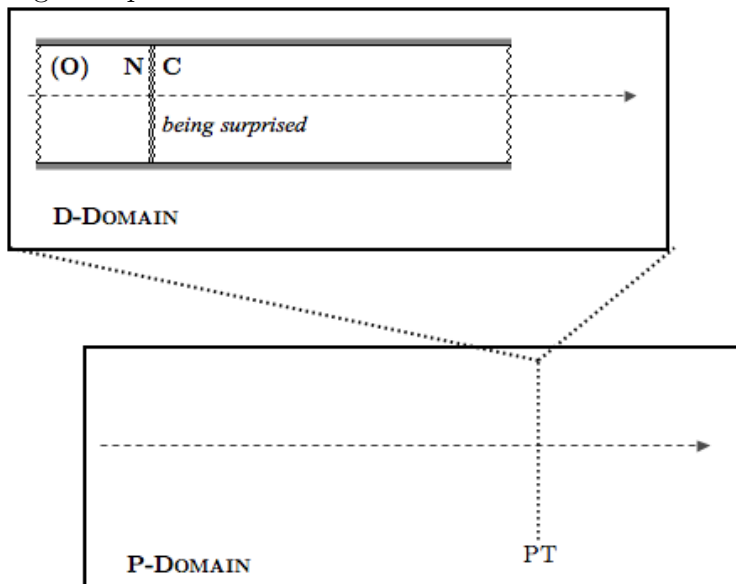
In both (304a) and (304b), the situations referenced, and their completion, are contained in a dissociative domain, which is distinct from the domain of perspective time. Additional clauses and modifiers may make further temporal specifications or establish new perspective times within the dissociative domain.[23] An illustration for posthodiernal dissociative *na-*

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[23]Though a full discussion is outside of the scope of this chapter, I propose that imperfective *ka-* selects

would be similar, but the dissociated domain selected would be subsequent to the domain of perspective time, symbolized by location down and to the right of the P-domain.[24]

5.3.2.4 The nature and importance of hodiernality

A final piece of the analysis of temporal dissociation is explaining its coincidence with non-hodiernality. In the most common case, a Bantu language will have two or three discrete past tenses. Approximately 72% of Bantu languages fit this description, according to Nurse (2008:89). Languages like Totela with two morphologically marked "past tenses" typically distinguish hodiernal and prehodiernal tenses (Nurse 2008:90). Dahl (1985:125) states Nurse's observation as a generalization and notes that it is true for non-Bantu languages with temporal distance distinctions, as well. In his sample of about 400 languages making distinctions, Dahl (2009) notes that approximately 85-90% have a hodiernal/prehodiernal distinction. The remaining 10%, distributed more-or-less equally throughout the areas where temporal distinctions are made, draw the temporal dividing line at various points, e.g. hesternal ('yesterday')/prehesternal. It is unsurprising, then, that Totela's two-past (perfective) system distinguishes the hodiernal from the prehodiernal past.

An important question regarding today and prior-to-today pasts, and one that may ultimately shed light on their overwhelming prevalence within graded past systems, is the starting point of "today" for grammatical marking. Nurse (2008) claims that in most Bantu languages

> . . . a day starts at sun-up and ends just before the next sunrise. Tense reference is linked with the state of the communal consciousness. A hodiernal (today) past goes back to sunrise on the same day, the start of the most recent period of communal consciousness (Nurse 2008:90).

However, based on research on the consolidation of memories during sleep and cross-linguistic data, Dahl (2008) posits that languages are more likely to use the hodiernal past for events occurring the previous night (and after) (Dahl 2008).[25] Dahl cites the following excerpt from *Scientific American*, based on studies at Brown University and the Max Planck Institute in Heidelberg, Germany:

> In other words, rather than memories being transferred to the neocortex during sleep, the authors speculate that memories are stored in both the neocortex and the hippocampus. Then, during sleep, the hippocampus, acting as a temporary

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within a dissociative domain a time frame (somewhat akin to Klein's (1994) topic time) excluding the situation's onset and the completion of its coda phase. See also 7.3.

[24]This strategy of symbolization borrows from the writing system used in this study, where text is read from left to right and top to bottom.

[25]Here, further specific data on Bantu languages would be desirable. It may be that a portion of the descriptive works claiming the day's start at sunrise are conflating the typical start of the day's activities (and memories) with the actual start of the domain of hoderniality marking. Of course, this is impossible to know without more documentation.

storage system, is cleared for another day of learning, while the memories are retained in the neocortex, which provides permanent storage much like a computer hard disk (quoted in Dahl 2008:36).

These results lead (Dahl 2008:37) to ask

> Is this where the explanation for the strong tendency to honour hodiernality in remoteness systems is to be found?

Dahl's generalization also appears to hold in Totela: the hodiernal past is used for anything that occurred after the time of sleeping for the speaker, whether that speaker went to bed early or late (ZT2009Elic33.CM). Reference times during the night take hodiernal marking. This cut-off point may be seen in the opening lines of a narrative of personal experience, shown in (305), in which the speaker is recounting a humorous story of my encounter with some mice the previous night. She uses a non-prehodiernal imperfective to set the scene:

(305) *Àmásìkù, ndìnálààlà.*

amasiku ndi-na-laal-a
CL6.night 1SG-PST-sleep-FV

'Last night, I was sleeping.' (ZT2009NarrA47.CN.4-5 *Tukoswe!*)

A sleep-time hodiernal cutoff is also seen in the following utterances, both excerpted from a narrative describing a dream:

(306) a. ku-ku-ñonzi   kuno   nda-fw-a   buti
          CL17(LOC).COP-CL17(LOC)-cl9.sleep CL17(LOC).DEM 1SG-CMPL-die-FV how
          kanti
          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)

In addition, when a baby was born during the night, a consultant described the events, starting with *twàkályà* 'we ate', with dissociative marking, but describing the birth event itself with *bébbàlá sùnù* 'she gave birth today' (completive -*a*-, but no dissociative -*ka*-) (ZT2009ElicLtr01).[26]

In the next section, I turn to further information-structuring uses of dissociative marking, as evidenced by their occurrence patterns in narrative.

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[26]There are no known exceptions to the sleep-time cut-off point in my data, but direct questioning indicates that at least one consultant may be shifting to consider midnight by the clock as the starting point of the new day. I have yet to determine whether clock midnight also influences this consultant's choice of associative or dissociative marking in natural discourse, because no events about which I have recorded data occurred unambiguously after sleeping time but before midnight.

5.4 Dissociativity in narrative

Both *-ka-* and *na-* occur in Totela narratives. Their distribution is almost completely predictable, and gives evidence of their dissociative nature, while also shedding further light on the role of dissociative domain marking in Totela.

This section first treats narrative uses of *-ka-*, which appears frequently at the beginning and ending of stories. I argue that use of the dissociative serves to mark the story world as apart from the world of its telling. I then turn to *na-*, which only appears in quoted speech in my narrative corpus: as might be expected, future forms are incompatible with a story set in an imaginary past.

5.4.1 *-ka-* in narrative

As noted above, the prehodiernal marker appears most commonly at the beginnings and very ends of narratives. The first verb of a narrative, which is typically set in the prehodiernal past, is almost universally a prehodiernal imperfective or completive form; this may be followed by a series of prehodiernal forms, as in (307)–(309), or immediately by a narrative form, as in (310).

(307) sets the stage for a narrative about an abused orphan with a series of dissociative imperfective and completive forms.

(307)   *Âwò **kàlì** mùchèchè **àkáfwìlwá** bànyìnà. Éènì. Chwàlè nìngá **bàkáfwà** bànyìnà, **náàkásìyàlá** kùbésì. Bésì nòkúsèsà yùmwí òmwánàkázì.*

awo **ka-li** mucheche
CL16(LOC).DEM PREHOD.IPFV-be CL1.child
a-ka-fu-il-w-a ba-nyina. eeni. chwale ninga
CL1.CMPL-PREHOD-die-APPL-PASS-FV CL2A-his.mother yes INTERJ NINGA
a-ka-fw-a ba-nyina, **na-a-ka-siyal-a**
CL1.CMPL-PREHOD-die-FV CL2A-his.mother NA-CL1.CMPL-PREHOD-leave-FV
ku-besi. besi noku-ses-a yu-mwi
CL17(LOC)-CL2A.his.father CL2A.his.father COM.INF-marry-FV CL1-other
omwanakazi
CL1.woman

'There once **was** [PREHOD.IPFV] a child, his mother **died on him** [PREHOD.CMPL]. Yes. Well, when his mother **died** [PREHOD.CMPL], that's when he **was left** [PREHOD.CMPL] with his father. Then his father married [NARR] another woman' (ZT-2009NarrA12.VB.2-6, *Kañandu*)

(308) and (309) are similar, with the opening clauses introducing characters and settings with dissociative forms.

(308) **_Kàtùlì_** _tùchèchè nàkàchèmbèlè_ **_kákèèkálà_** _mùchìòlè mòmútèmwà_ **_kàpònângà_**
òbwîílì. **_Kàkáyààkà_** _nèñándà. Íngà nàtó_ ꜛ_tôtò òtùchèchè_ **_kàtùyèmbèlângà_**
mùmútèmwà nòkwíjàlwìlá òtùpóngò.

ka-tu-li   tucheche   nakachembele
PREHOD.IPFV-CL13-be CL13.children COM.CL12.old.person
ka-<u>ka</u>-ikal-a   mu-chiole   mu-mutemwa
PREHOD.IPFV-CL12-stay-FV.RC CL18(LOC)-CL7.bush CL18(LOC)-CL3.forest
ka-pon-ang-a   obwiili.   **ka-<u>ka</u>-yaak-a**
PREHOD.IPFV.CL1A-live-HAB-FV CL14.obwiili.roots. CL12.CMPL-<u>PREHOD</u>-build-FV
neñanda.   inga nato   toto   otucheche
COM.CL9.house. INGA COM.CL13.DEM CL13.DEM CL13.children
ka-tu-yemb-el-ang-a   mu-mutemwa
PREHOD.IPFV-CL13-herd-APPL-FV.RC CL18(LOC)-CL3.forest
noku-ijalwil-a   otupongo
COM.INF-open.APPL-FV CL14.goats

'There once **were** [PREHOD.IPFV] children, and a little old lady who **lived** [PRE-HOD.IPFV] in the bush, in the forest. She **lived** [PREHOD.IPFV] on *obwiili* roots. And she also **built** [PREHOD.CMPL] a house. And so those children who **used to herd** [PREHOD.IPFV] in the forest let out [NARR] the goats.' (ZT2009NarrA08.NS.11-22, *Namayoyo*)[27]

(309) _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-<u>PREHOD</u>-go
ku-masintoolo.   Ku-<u>ka</u>-sik-a   koko
CL17(LOC)-CL6.store INF-DIST-arrive-CL17.LOC CL16(LOC).DEM
ku-masintoolo   (ku)-<u>ka</u>-wul-a-<u>ka</u>-wul-a   eziya
CL17(LOC)-CL6.store (INF)-DIST-buy-FV-DIST-buy-FV cl9.clothing

'there once **were** [PREHOD.IPFV] children. They **went** [PREHOD.CMPL] to the store. They arrived [NARR] at the store, then they started buying [NARR] clothes' (ZT-2009NarrA30.CN, *Ntinini*)

(310) contains only one dissociative verb introducing the main character before plunging into the main plotline.

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[27]The first lines of this recording contain an introduction of the speaker and a preview of the song.

(310)   *âwo **kàlì** mǔ꞊kwáámè nòkàtòbèlá òmwánàkázì*

awo   **ka-li**   mukwaame no[ku]-ka-tobel-a
CL16(LOC).DEM PREHOD.IPFV-be CL1.man   COM.NARR-DIST-seek-FV
omwanakazi
CL1.woman

'there once was a man, he went looking for a wife' (ZT2009NarrA14.CN.2, *Choncho*)

In each of the above examples, -*ka*- marked verbs – both imperfective and completive – serve to set the stage for the ensuing action, which is typically marked with narrative forms. Imperfective forms give information about the scene and the state of the participants, while completive forms detail actions that lead up to the main story line. For example, in (309), the children are introduced in the first clause with a prehodiernal imperfective, and their stage-setting action, the trip to the store, is noted in the section clause. After this brief introduction, the events of narrative proper commence. This background information is what Labov & Waletzky (1967) term ORIENTATION. Here, dissociative forms seem to signal to listeners that the story about to be narrated takes place in another time, and, for fictional folk narratives, another reality.

Dissociative -*ka*- forms also occasionally appear in a narrative ABSTRACT, a brief initial summary or introduction to the story at the very beginning (Labov & Waletzky 1967), as in (311). The predicate in (311) announces that the story is going to be about the actions of a certain person, and that details will follow.

(311)   ***mwâ<u>ká</u>chìtílà*** *yôyó òmùntù…*

mu-a-<u>ka</u>-chit-il-a   yoyo   omuntu…
cl18(loc)-cl1-cmpl-<u>prehod</u>-do-appl-fv.rc CL1.DEM CL1.PERSON

'this is how this person acted…' (ZT2009NarrA76.AM.19, *Nyanyambe*)

While abstracts such as the one in (311) appear rarely in my narrative corpus,[28] the use of dissociative forms with them is entirely in line with orientation uses; here, too, the speaker is introducing listeners to a world apart from the discourse world at the time of telling.

Once the narrative world has been established, narrative forms depicting subsequent sequential events, and completive forms marking episode boundaries and out-of-sequence actions (see 3.3), may be used, with listeners accepting the imaginary world as the new base world from which to identify perspective times. From this point, perspective times of the story characters coincide with the perspective times affecting verbal inflection used in narration.

-*ka*-marked forms appear rarely within the main narrative body; when they do, they are almost universally in quoted speech of characters referring to events prior to the day of

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[28]This is possibly because a major function of the abstract, as noted by Labov (2001:64) is to inject "the narrative into the framework of conversational turn-taking". Because the speakers being recorded did not need negotiate the conversational floor, they were able to plunge immediately into specific narrative details.

story-internal perspective time.[29] At the end of virtually every narrative is a conventionalized CODA, as in (312), marked with dissociative -ka-.

(312) *Pólwàk̀àmànínà*

po-lwa-ka-man-in-a
cl15(loc)-cl11.CMPL-PREHOD-finish-appl-FV

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

As described by Labov (2001:65), the function of a coda is to indicate "termination of the narrative by returning the time frame to the present". Labov & Waletzky note that this effect is often achieved through use of deixis, e.g. "obviate" 'that' and 'those' in contrast to the "proximate" 'these' and 'here' that are used throughout the main narrative (Labov & Waletzky 1967:100). Using a dissociative marker accomplishes this goal by moving perspective time from story time, where events occur in a special story-internal (associative) domain, back to the time of telling, where the narrated events are removed from the time, space, and reality of the speaker and the audience. Use of -ka- reminds the hearer that the preceding narrative occurred in a domain other than the here-and-now. During the narration, listeners suspend reality and are figuratively transported to that domain, so another dissociative marker at the end of the narrative serves to close the domain of story reality and "re-enter" the present world.

In framing a narrative, then, dissociative -ka- marking delineates a world, separate from the world of telling, where listener belief can be suspended to include narrative events, whether fantastic or mundane. Inside that world, associative forms are used to reflect story-internal reality.

5.4.2 *na-* in narrative

Cross-linguistically, future forms are quite rare in narrative. Fleischman (1990) posits that this is because they are strongly anchored to the deictic now of the speaker, which has been suspended in narratives in favor of narrative-internal time. Furthermore, most narratives are *about* events in the past, real or imagined, and not in the future. Botne & Kershner (2008) do not address this issue specifically, but their framework might predict that use of a dissociative future, if dissociated from the speaker's temporal context, would clash with the already dissociated world of the story. When futures do occur in narratives, they are generally in one of the two following contexts:

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[29]A -ka- form also sometimes appears in the common expression *èlí bwàkáchà* 'when it dawned'; this use may indicate a larger break in the storyline, i.e. a reset of perspective time marked by sleeping and the start of a new day. On the other hand, as noted in 5.3.2.4, the start of a day and the use of hodiernal forms seems by all accounts in Totela to start with the time of sleeping and not of the sunrise, so this use is somewhat unexpected. Identical expressions without -ka- also appear with some frequency, so the choice may be stylistic or reflect speaker judgements about the magnitude or importance of an episode break. More likely is that this -ka- is actually distal: the form is ambiguous with the distal -ka-, and Lozi translations do not reflect a difference between *bwáchà* and *bwàkáchà*. Further investigation is needed.

1. In narrator "commentary" about the story, outside the story's internal time frame

2. In the narrative itself, contrasting with a NARRATIVE PRESENT (Fleischman 1990: 30;39).

In Totela narrative, the use of posthodiernal *na-* is rare or nonexistent, not appearing in my narrative corpus outside of quoted speech. This absence is expected: First, if *na-* is a dissociative marker (following Botne & Kershner 2008) that moves the discourse from the concrete here-and-now domain to a less-certain domain located somewhere in the posthodiernal future, it clashes with the already established (fictive, dissociative) prehodiernal past domain in which the narrative is framed.

Second, as Fleischman (1990:39-40) notes, a future tense in a text set in the past may invoke either the future with respect to the speaker (deictic future as commentary), or it may be the future with respect to story time (diegetic future), relating to a narrative present. As noted in previous chapters, commentary on or foreshadowing of story action (Labov & Waletzky's EVALUATIVE clauses (1967)) in the narrator's voice is rare in my corpus; these functions are carried out instead through quoted character speech, which, as shown below, does contain frequent examples of *na-*marked verbs. Diegetic futures, then, are not used in the narrative proper. The alternative is that the posthodiernal future is strongly linked to the extra-narrative perspective of the storyteller, and the insertion of commentary situated in future at least one day from the time of the storytelling will be almost universally anomalous without a total break from the narrative discourse.

However, posthodiernal *na-* does appear commonly in quoted speech in narratives. When it occurs, it is almost always in the context of a spy or soothsayer revealing the deceptive ways of a main character to his or her deceived counterpart. IF you follow my instructions, then YOU WILL SEE the truth tomorrow. One example is given here in (313); another may be seen above in (281).

(313) *"Yoyu mukazi wako tali muntu. Inga ijilo <u>na</u>mumuyembele. <u>Na</u>mulakamukwaata"*

"yoyu   mukazi   wako   ta-li   muntu.   inga ijilo
CL1.DEM CL1.wife CL1.2SG(POSS) NEG.CL1-be CL1.person DM   tomorrow
<u>na</u>-mu-mu-yembel-e.   <u>na</u>-mu-la-ka-mu-kwaat-a."
POSTHOD-2PL-3SG-herd-FV.SBJV POSTHOD-2PL-NONCMPL-DIST-3SG-catch-FV

'That wife of yours, she's not human! Now you just watch her tomorrow. You'll catch her.' (ZT2009NarrA09, *Lobwa Lobwa revision*)

Thus, dissociative future *na-* is licit in narrative only when clearly anchored to character reality and expectations.

5.5   *-ka-* and *na-*: historical perspectives

The previous sections have established *-ka-* and *na-* as markers of dissociative past and future, respectively, in Totela. Although they most likely developed independently, they are now

working, I have argued, more or less in parallel in a unified system dissociativity marking. This section attempts to situate the markers historically and comparatively, and to identify possible grammaticalization pathways. Because *ka* and *na* morphemes are both common across Bantu, in various positions in the verb template and with disparate functions, only a preliminary study is possible here. The following sections treat the markers in sequence.

5.5.1 Grammaticalization pathways of *-ka-* and *na-* in Bantu

5.5.1.1 *-ka-* across Bantu

-ka- serves a vast range of functions in Bantu, including past marking, usually distal (Nurse 2008:84). Nurse lists common functions as "negative, itive [i.e. distal, or 'go and X'], narrative, (far) future, (far) past, and 'if/ when/ conditional/ situative/ persistive"' 2008:241. In fact, all of these functions except narrative may be found in either Namibian or Zambian Totela, as shown in table 5.4.

	ZT	NT
negative		✓
itive/distal	✓	✓
narrative		
far future		✓
far past:		
ipfv	✓	✓
pfv	✓	
'when'	(✓)	

Table 5.4: *-ka-* use in ZT and NT

As noted in previous sections, *-ka-* is (basically) cognate with the distal *-ka-* marker (which indicates that a situation occurs elsewhere than the discourse "here"), and the meanings are similar in that they both indicate "removal" in time or space. It therefore seems possible that the two are related.

Bybee *et al.* (1994:101) note three likely sources for remoteness morphology:

a. Completive and anterior markers (perfectives and simple pasts also result from this grammaticalization path)

b. Temporal adverbs

c. Locative notions

This third type seems to have most in common with the theory that past *-ka-* originated in a marker of spatial distance. Bybee *et al.* (1994:103) describe the following situations in Tucano and Guaymí:

> [In the Guaymí case] the immediate past is described as representing situations as close to the scene of discourse, while the remote past represents situations as remote or distant from the scene ... The Tucano immediate past (of direct experience) is described as representing a situation as either removed in time from the present or removed in space, so that for a third person subject, this form could signal a present action by someone not in sight at the moment.

The sample used by Bybee *et al.* (1994) does not provide enough examples of remoteness distinctions to draw strong generalizations about their origins, but the cases described by them, along with Bantu *ka*, suggest that the path from distal locative marker to distal temporal marker may be a robust one.

Botne (1999) gives a number of possible sources for distal *-ka-*, the most plausible of which are grammaticalizations of verbs meaning 'go'. Based on distribution patterns, Botne argues that distal *-ka-* most likely originated in "itive" imperative forms, i.e. 'go and do X'.[30] If a language has *-ka-* in infinitives, it will also have imperatives with *-ka-*; likewise, use in indicative and subjunctive forms usually (but not always) implies that the language also has *-ka-* imperatives.[31]

In Totela, distal *-ka-* is apparently unrestricted in its tense/aspect/mood combinations. Prehodiernal *-ka-*, except with some verbs in the negative, seems only to occur with the indicative/default *-a* final vowel. For semantic reasons, imperative pasts are illicit in Totela, and even counterfactual pasts have final *-a* rather than subjunctive *-e*. If prehodiernal *-ka-* is a descendent (or copy) of distal *-ka-*, all but indicative mood in the affirmative must have been excluded somewhere along the grammaticalization path. This seems plausible: distance in space often coincides with distance in time, but situations in the known past would most frequently be discussed with indicative forms. The *-ka-* form may then have been doubled to describe situations remote in both time *and* space.

Alternatively, the two morphemes may have distinct sources, as Botne (1999) concludes about future and distal *-ka-*: Future *-ka-*, he argues, "originated in a simple indicative". If the sources of prehodiernal and distal *-ka-* are, in fact, distinct, it is remarkable that the segmentally-identical morphemes with semantically- related meanings developed independently.

Nurse also posits a connection between itive ("go and")/distal *-ka-* and past *-ka-*:

> ... combinations of /a/ and other morphemes could produce further past reference. Thus past *-a-* could be followed immediately by itive *-ka-* (i.e. *a + ka*), giving forms translatable as 'went and verbed'. Since itives tend to remove the time and place of the situation far from the present, the combination of past and

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[30]It may be noted that northwest languages such as Nzadi (B.865) and Abo (A.42) have a verb *kɛ* 'go', possibly, although far from certainly, related to Proto-Bantu **ge/*ke* 'go' or **gend* 'walk'. This connection is speculative and tenuous.

[31]Botne (1999) aims to investigate the origins of distal and future *-ka-*'s, and concludes that they should be reconstructed as distinct morphemes in Proto-Bantu. However, in some languages, the distinctions have been neutralized, leading to "complete overlap" (Botne 1999:504).

itive may give a remote(r) past (or future), which is a minor source of such pasts (Nurse 2008:239).

Thus, the possibility of semantic and historical relationships between Totela's dissociative *-ka-* markers, both temporal and spatial, should not be discounted and deserves further study.

5.5.1.2 *na-* across Bantu

A *na* morpheme as a prefix, proclitic, or other TAM marker is fairly common across Bantu, occurring as a prefix or proclitic in two geographically separate areas: K10-30-40, and G20-G40-E56-E71-E72 (Nurse 2008:54). It occurs much more frequently in the post-SM slot: it "is scattered, although thinly, across all Zones except B" (Nurse 2008:250). Its most likely origin is a comitative proclitic *na=*, meaning 'with', 'and', or 'have (=be with)'. The functions of *na=* are disparate: it occurs "in verbal forms translated by 'narrative, progressive/imperfect, not yet, future, past', the latter two often in conjunction with other tense markers" (Nurse 2008:25). This variety is not terribly surprising from a typological standpoint; Heine & Kuteva (2002:79-90) note that cross-linguistically, comitatives are attested as grammaticalizing to at least ten different functions (see also Nurse 2008:250).

In Zambian Totela alone, *na-* occurs as a prefix on futures and with situative aspect (with different tone patterns), as a proclitic on some narrative forms (see 7.6); verb-internally with hodiernal imperfectives and with all past-tense negatives; and possibly in the copular construction SM-*ina*, which occurs with copula of location and possession, as well as in the periphrastic progressive (see also 7.3.2.1). In addition to these functions, it is also used extremely commonly as a comitative proclitic *na=* that can attach to virtually all word classes.

This profusion of uses makes a path to future meaning less easy to trace. Bybee *et al.* (1994) do note two pathways from 'be'/'have' to the future, as in figure 5.2.
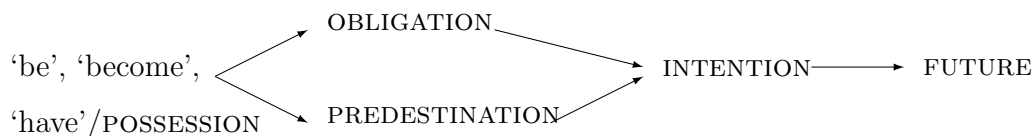
Figure 5.2: Paths to future from 'be(come)'/'have' (from Bybee *et al.* 1994:263)

In Zambian Totela, *na-*related forms such as *-ina* 'be (located), have' are still used with 'be' and 'have' meanings, as in (314) and (315)[32], and the comitative (and/with) *na=*

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[32]'have' forms with *na-* translate literally as 'be with', although the negative forms do not require comitative *na-* 'with'.

proclitic is still extremely productive. However, neither intermediate step is synchronically evident in my data corpus.

(314) **èná** ꜜ*ánzè êñándà*

   a-**ina**   anze   a-iñanda
   3SG-be(LOC) CL16(LOC).outside CL16(LOC)-CL9.house

   'he **is** outside the house' (ZT2009Elic154)

(315) a. *ndìnà nèñòmbè*
       ndi-ina na-iñombe
       1SG-be COM-CL9.cow

       'I have a cow' (lit: 'I am with a cow') (ZT2009Elic65)

       tàndìnà nèñòmbè / tàndìná iñòmbè
   b. ta-ndi-ina   na-iñombe   / ta-ndi-ina   iñombe
       NEG-1SG-be COM-CL9.cow / NEG-1SG-be CL9.cow

       'I don't have a cow' (ZT2009Elic65)

Thus, while little can be said with certainty about the source or grammaticalization pathway of posthodiernal *na-* in Totela, a source in comitative *na-* seems likely. Once established as a future, and inherently uncertain, the step to marking temporal and epistemic dissociation is a natural one.

5.5.2 *-ka-* and *na-* in related languages

As the table in (316) shows, similar morphemes occur throughout the "tense" systems of Zambian Totela and related languages – Ila (M.63) and Tonga (M.64) in Zambia; and Namibian Totela (K.411 in Maho 2009), Fwe (K.402), Subiya (K.42), and Mbalangwe (K.401/K.42) in the Namibian Caprivi – but their slots in the paradigm vary widely. For convenience of display, I have treated the systems as purely temporal, with P_2 denoting the most distant past, and so forth, and in the following discussion I will refer to them as pasts and futures, without making claims as to their actual discourse functions, since little semantic and pragmatic information is available for most varieties. R stands for the verb root (along with any extensions).

(316) d

-ka- is a common future in both the Zambian and Namibian areas, appearing in Ila (Zambia), Namibian Totela, and Subiya (Namibia), albeit in different positions. All Zambian varieties investigated here (ZT, Ila, Tonga) have P_2 *-ka-*, as well. A *na-* prefix occurs as a future in this sample only in Zambian Totela, and as a P_2 in several Namibian varieties (NT and Fwe). These morphemes occur in distal pasts and futures throughout the languages (with the exception of Subiya), but vary both positionally and in whether they mark past

	P$_2$	**P$_1$**	**Pres**	**F$_1$**	**F$_2$**
ZT	SM-a-**ka**-R-a	SM-a-R-a	SM-la-R-a	SM-la-R-a	**na**-SM-la-R-a
Ila	SM-a**ka**-R-a	SM-a-R-a	SM-la-R-a	SM-la-R-a	SM-**ka**-la-R-a
Tonga	SM-a**ka**-R-a	SM-a-R-a	SM-la-R-a	SM-la-R-a	periphrastic
NT	**na**/ni-SM-a-R-a	SM-a-R-a	SM-R-a	m(b)o-SM-R-e	**ka**-SM-R-e
Fwe	**na**/ni-SM-a-R-a	SM-a-R-a	SM-R-a	mbo-SM-R-e	SM-la-R-a
Subiya	SM-ba-R-a/i	SM-a-R-a/ SM-R-i	SM-R-a	mu/mbo-SM-R-e	SM-za-ku-R-a
Mbal.	SM-ba-R-i	SM-a-R-a	SM-R-a	mu-SM-R-e	**ka**-SM-R-e

Data from: Crane 2007 fieldnotes (ZT, NT, Fwe, Subiya, Mbalangwe);
Jacottet 1896-1901 (Subiya); Carter 2002 (Tonga); Hopgood 1940 (Tonga);
Nurse 2008 (Ila); Fowler 2000 (Ila); Smith 1964 (Ila)

Table 5.5: Temporal distinctions in Totela and related languages

or future; however, they do not occur with P$_1$ or F$_1$, or in the present.[33] This patterning suggests that both forms may be linked to temporal dissociation, with flexible temporal directionality.

Additionally, Namibian Totela may have a remnant of future dissociative *na-* in conditional clauses. Recall the expression of Zambian Totela posthodiernal conditionals, as in (317):

(317) *Ijilo **esi <u>na</u>ndiwaane**...*

ijilo   **esi**   **<u>na</u>-ndi-waan-e**
tomorrow COND POSTHOD-1SG-find-FV.SBJV

'tomorrow, if I find...' (ZT2009NarrA10, *Namayoyo revision*)

In Namibian Totela, conditionals are typically expressed with an (optional) proclitic *ha=*, as in (318):

(318) **ha***bawan'amali*...

ha=ba-wan-a   amali
COND=3PL-find-FV CL6.money

'if/when they find money...' (NT2007Elic19, from Dahl 1985:Q101)

Posthodiernal future conditionals, however, take the following form, highly reminiscent of ZT posthodiernal conditionals.

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[33]Other morphemes with different uses, such as distal *-ka-*, may occur in P$_1$, F$_1$, and Pres; also, other *na* morphemes occur with various roles. The extreme commonness of both forms throughout Bantu prevents strong claims. Still, it is striking that both *na* and *ka* occur throughout distal time marking paradigms in this area.

(319)   ***hasina bawane*** *amali...*

        hasina ba-wan-e amali...
        COND.POSTHOD   3PL-find-FV.SBJV

        'if/when they get the money [e.g. tomorrow]...' (NT2007Elic19, adapted from Dahl 1985:Q103)

The areal data, with frequent use of *ka* and *na* morphemes to indicate either distant pasts or distant futures, as well as widespread distal *-ka-*, suggest that both *na-* and *-ka-* have a wider sense of dissociativity.

5.6   Conclusions and Implications

This chapter has argued that in Totela, *-ka-* and *na-* morphemes establish dissociative past and future domains, respectively, and are thereby tense markers in the sense of Botne & Kershner (2008). They interact with aspectual markers of completion and non-completion, and while they seem at first glance to overlap with them, I have argued that their functions are complementary. Totela is best analyzed, then, not as having markers of hodiernal and prehodiernal pasts (or hodiernal and posthodiernal futures), but as employing markers of (non-)completion and temporally-specified dissociation to achieve these effects.

Kershner (2002) makes similar arguments for Chisukwa, and Botne & Kershner (2008) illustrate how the notion of dissociativity – of discourse structuring via the invocation of temporal (and other) cognitive worlds – can be employed in the analysis of numerous other languages, both Bantu and non-Bantu. Together, these results suggest that a closer look, with these concepts in mind, at other so-called "tense" systems, especially those that are temporally graded, may be worthwhile. The role of dissociative domains in narrative structuring has also shown to be relevant for Totela and other languages (e.g. Yeyi in Seidel 2008), and merits further cross-linguistic study.

Chapter 6

Relevance and time: *-ite*

6.1 Introduction

The verbal suffix *-ite* presents numerous complexities and defies a strictly temporal analysis for a number of reasons. First, its temporal interpretation is highly dependent on the predicate selected. With some predicates, *-ite* typically gives a stative or resultative reading, as in (320). In the resultative cases, the situation described in the predicate took place in the past, but its results continue. With other predicates, such as those in (321), the reading is more progressive-like, with the situation described still underway at perspective time.

(320) Stative and resultative uses

    a. Stative:

        ndìlíbwènè

        ndi-li-bwene

        1SG-PRES.STAT-see.STAT

        'I see'

    b. Resultative:

        ndìlízìmènè

        ndi-li-zim-ene

        1SG-PRES.STAT-stand.up-STAT

        'I am standing' (because I have stood up)

    c. Resultative:

        ndìlílìbììkìtè

        ndi-li-li-biik-ite

        1SG-PRES.STAT-refl-hide-STAT

        'I am hiding' (because I have hidden myself)

(321) Progressive uses

    a. *ndìlìyènd<u>ètè</u>*
       ndi-li-yend-<u>ete</u>
       1SG-PRES.STAT-walk-<u>STAT</u>

       'I am walking'

    b. *ndìlìnèng<u>ètè</u>*
       ndi-li-neng-<u>ete</u>
       1SG-PRES.STAT-dance-<u>STAT</u>

       'I am dancing'

A second complicating factor is that for at least some *-ite* constructions, speakers vary in their judgments of temporal interpretation when context is not provided. For example, both a resultative and a progressive reading were offered for the verb *-nenga* 'to dance':

(322) a. *ndìlìnèng<u>ètè</u>*
       ndi-li-neng-<u>ete</u>
       1SG-PRES.STAT-dance-<u>STAT</u>

       'I am dancing' (ZT2007Elic113, among others)

    b. *ndìlìnèng<u>ètè</u>*
       ndi-li-neng-<u>ete</u>
       1SG-PRES.STAT-dance-<u>STAT</u>

       'I have danced' (ZT2007Elic101)

Third, in elicitation sessions, speakers often deem *-ite* unacceptable with certain predicates. However, the same *-ite* constructions deemed ungrammatical in elicitation sessions were sometimes accepted by other speakers, or even by the same speakers at later times. More tellingly, many forms rejected in elicitation are attested in real-life contexts. Such an example is given in (323), which was rejected by a speaker in elicitation but accepted by other speakers and heard in conversation.

(323) #*tulipon<u>ete</u>*

    #tu-li-pon-<u>ete</u>
    1PL-PRES.STAT-live-<u>STAT</u>

    (intended): 'we are living' (ZT2007.AN)

This chapter proposes an analysis for *-ite* that is two-fold. Temporally, *-ite* functions as a stativizer, picking out a phase from within a predicate's event structure and presents it as a steady state attributed to the subject. *-ite* additionally has a pragmatic, information-structuring component: it picks out a phase within the event structure phase deemed as a *relevant* state within the current discourse context. I argue that *-ite* carries a presupposition of relevance, forcing the hearer to select a phase that is directly relevant to the discourse topic;

this results in varying temporal interpretations such as those noted above. Interpretation, within context, of the relevance presupposition determines the location of the state picked out by -*ite* within the situation's event structure. In the associative domain, perspective time is located within the -*ite*-derived state (unmarked or marked with -*li*-). In the dissociative prehodiernal domain (with the prehodiernal imperfective *ka-* prefix), -*ite* invokes a secondary perspective time, located within the -*ite*-derived state in the dissociative domain. I have not found future uses with -*ite*. Throughout this chapter, when -*ite* is used in the associative domain, perspective time may be understood to correlate with utterance time. When -*ite* is used with prehodiernal imperfective *ka-*, -*ka*- focuses a frame within which a secondary perspective time may be introduced.

Analysis of -*ite* as a stativizer with a relevance proposition is confirmed by narrative uses of the -*ite* marker, discussed in 6.6. In narratives, the -*ite* suffix appears in a few common collocations used in shifting the story's action from one location to another. It also often appears in orientation sections, describing a character's state (e.g. *married* or *suffering*) that sets up the ensuing conflict and action. Both of these functions, as well as other appearances of -*ite* in narratives, are predicted under an analysis of -*ite* as a stativizer with a relevance presupposition.

The remainder of this chapter is organized as follows. In section 6.2, I give basic morphosyntactic information about -*ite* in Zambian and Namibian varieties, both of which are used as data sources in this chapter, because they both use the suffix frequently and with similar effects, and are are valuable for comparison. In 6.3, I argue that -*ite*'s primary semantic role is as a stativizer: it creates a state attributed to the verb's subject. Section 6.4 argues that -*ite* also carries a relevance presupposition. 6.5 brings together these two components of -*ite*, showing how they account for -*ite*'s temporal interpretations. These components are also used in narrative structuring, which I discuss in 6.6. This analysis may have implications for the historical study of -*ite* and similar suffixes, which are often reconstructed as anterior markers (e.g. Nurse (2008); cf. Schadeberg (2003), who reconstructs PB *-*ide* as a perfective marker). The chapter therefore closes in section 6.7 with a historical and comparative view of -*ite*, arguing against previous proposals of its origins as an anterior or perfective marker. The possible history and development of -*ite* in Totela and within Bantu more broadly are discussed in 6.7.2. Section 6.7.3 discusses -*ite*-like suffixes in languages closely related to Totela, showing that their temporal semantics are also far from straightforward.

6.2 Morphosyntax

In the general case, -*ite*'s form is -*ite* or -*ete*, with the first vowel harmonizing for (mid) height (VHH) with the verbal root vowel (-*ite* after *i, u*, and *a*; -*ete* after mid vowels *e* and *o*). Other forms are the result of imbrication (a process in which the suffix "moves inside" the root, causing vowel coalescence and consonant loss; see e.g. Bastin 1983; Botne & Kershner 2000:168), consonant mutation (CM), and consonant harmony. Passive -*w*- occurs before the final vowel of -*ite*, suggesting (though by no means demanding) a bimorphemic analysis, i.e.

-it-...*-e*. A handful of forms are simply irregular. A sampling of forms is shown in (324), with a more complete exposition and discussion found in appendix B

(324) Some of *-ite*'s realizations

	Stem	**Gloss**	***-ite* form**
VHH:	-zimba	'swell'	-zimb<u>ite</u>
	-luka	'be good'	-luk<u>ite</u>
	-penga	'suffer'	-peng<u>ete</u>
	-yoba	'get lost'	-yob<u>ete</u>
	-taba	'be(come) happy'	-tab<u>ite</u>
CM:	-ikuta	'be(come) full'	-ik<u>usi</u>
Imbrication:	-ikala	'stay'	-ik<u>ele</u>
	-shekela	'sink to bottom'	-shek<u>ele</u>
	-tontola	'be(come) cold'	-tont<u>wele</u>
	-hupula	'think, remember'	-hup<u>wile</u>
	-zimana	'stand up'	-zim<u>ene</u>
Passive:	-chiswa	'get hurt, sick'	-chis<u>itwe</u>
-ile forms	-fwa	'die'	-fwi<u>ile</u>
	-suwa	'hear, understand'	-suw<u>ile</u>
Irregular:	-iziba	'come to know'	-izi

While verbs in main clauses with hodiernal non-past temporal reference occur with the *-la-* marker in Zambian Totela (see chapter 4), verb macrostems, which include the verb root and any pre-root object markers, are preceded by *-li-* in affirmative main clauses with *-ite* ending and without past or future tense marking.

(325) *-li-* + *-ite* vs. *-la-* + *-a*

    a. *ndìlíbw<u>ènè</u>*

      ndi-**li**-bw<u>ene</u>

      1SG-PRES.STAT-see.<u>STAT</u>

      'I see' (stative) (cf. ungrammatical *ndi-**la**-bw<u>ene</u> with *-ite*) (ZT2007Elic113)

    b. *ndìlábònà*

      ndi-**la**-bon-a

      1SG-NONCMPL-see-FV

      'I see' (active) (cf. ungrammatical *ndi-**li**-bon-a) (ZT2007Elic113)

The *-li-* marker seems to be a transparent derivation from the verb *-li* 'to be' (PB *-dì) and still has this meaning in some contexts in Totela, as seen in example (326), the opening line of a story:

(326) *Âwò, kàlì mú̂kwáámè àsèsá àbánàkázì bòbílè*

awo	ka-**li**	mukwaame	a-ses-a	abanakazi
CL16(LOC).DEM	PREHOD.IPFV-be	CL1.man	CL1-marry-FV.RC	CL2.woman

bobile
CL2.two

'there once was a man who married two women'
(ZT2009NarrA64.GS.3-4, *Nyawi-Nyawi*)

Like *-la-* *-li-* does not occur in non-main-clause, non-affirmative, or non-indicative contexts, although *-ite* may occur in all of those contexts, as shown in (327) and (328).

(327) *ndìlíbwèné àbàntù **bàfúmìtè***

ndi-li-bw<u>ene</u>	abantu	**ba-fum-<u>ite</u>**
1SG-PRES.STAT-see.<u>STAT</u>	CL2.person	CL2-be.rich-<u>ITE</u>.RC

'I see people who are rich / rich people' (ZT2009Elic28)

(328) ***tà**ndìtàb<u>ìt</u>ê*

ta-ndi-tab-<u>ite</u>
NEG-1SG-be(come).happy-<u>STAT</u>

'I am not happy' (ZT2009Elic39)

In summary, *-li-* appears with *-ite* in the same syntactically-conditioned contexts in which *-la-* would occur without *-ite*. As discussed in chapter 4, *-la-* indicates, to at least some degree, disjunctive focus meaning. *-li-* is *-la-*'s stative counterpart, also having something like a disjunctive focus component. Further, because perspective time is located within the *-ite* state, forms with *-li-* may be said to appear in present stative contexts; this is not surprising given *-li-*'s likely origins as the stative verb 'be'. I therefore gloss *-li-* as PRES.STAT with *-ite* verbs. *-li-*'s contributions are not further discussed in this chapter.

In the prehodiernal dissociative domain, *-ite* co-occurs with imperfective prefix *ka-*:

(329) *katupeng<u>ete</u>*

ka-tu-peng-<u>ete</u>
PREHOD.IPFV-3PL-suffer-<u>STAT</u>

'we were suffering' (ZT2007Elic113)

-ite may occur with or without a direct object. Object markers (330) and full lexical objects (331)-(332) are allowed with *-ite*.

(330) *nàkó àkàchèmbèlè kàlìmúbwènè*

nako	akachembele	ka-li-mu-bw<u>ene</u>
COM.CL12(DEM)	CL12.old.hag	CL12-PRES.STAT-3SG-see-STAT

'and that old hag sees him [is spying on him]' (ZT2009NarrB3.CN, *Sinjoli naChacha*)

(331) *chìnzí mwíndiìtè?*

       chinzi mu-ind-<u>ite</u>
       what   2PL-take-STAT

       'what have you got with you?' (ZT2009NarrA45.CN, *Kali Mungoma*)

(332) *kababez<u>ete</u> zipula*

       ka-ba-bez-<u>ete</u>   zi-pula
       PREHOD.IPFV-3PL-carve-<u>STAT</u> CL8-chair

       'he was carving chairs' (NT2007Elic17)

-ite is incompatible with completive forms, as in (333a) and (333b) and with past *-na-* (333c).[1] Because the forms are ungrammatical, free translations in (333) represent intended, rather than actual, meanings.

(333)   a. **nd**a*chis<u>itwe</u>*
         *nd**a**-chis-<u>it</u>-w-<u>e</u>
         1SG.CMPL-hurt-<u>STAT</u>-PASS-<u>STAT</u>

         (intended) 'I was hurt/sick (earlier today)'

    b. **tw**aka*peng<u>ete</u>*
         *tw**a**-**ka**-peng-<u>ete</u>
         1PL.CMPL-PREHOD-suffering-<u>STAT</u>

         (intended): 'we were suffering'/ 'we suffered' (ZT2007Elic136.AN)

    c. **ndi**na*chis<u>itwe</u>*
         *ndi-**na**-chis-<u>it</u>-w-<u>e</u>
         1SG-PST-hurt-<u>STAT</u>-PASS-<u>STAT</u>

         (intended): 'I was hurt/sick (earlier today)' (ZT2009Elic34)

Similarly, *-ite* does not occur with posthodiernal dissociative marker *na-*. It may be possible in certain periphrastic constructions, but such use has never been attested outside of elicitation for Zambian Totela.

Use of *-ite* forms in subjunctive contexts is illicit, as shown in (334).

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[1]An example of *-ite* with the prehodiernal imperfective negative was accepted in elicitation (ZT2009Elic88) together with the word *sunu* 'today', indicating that it might be possible to use this construction to negate an assertion that a state held earlier in the same day. Contini-Morava (1989) presents a compelling argument that we should not expect a one-to-one mapping between tense/aspect markers and their negations, so this speaker judgment is not entirely surprising. However, such a use does not occur in my text corpus and is beyond the scope of the present investigation. Section 7.2.1 uses *-na-*'s non-co-occurrence with *-ite* and some lexical statives as evidence that *-na-* is not a general imperfective marker.

(334)   *ndisaka mutab<u>ite</u>

   *ndi-sak-a   mu-tab-<u>ite</u>
   1SG-want-FV 2PL-be(come).happy-<u>STAT</u>

   (intended): 'I want you to be happy' (ZT2009Elic39)[2]

   -ite may additionally occur with situative (participial) na- (335) and persistive ('still')
-chi- (336).[3]

(335)   sùnù àwá ndìnâlì, ndàbòná òmùntù **nàítìtè**

   sunu awa   ndi-na-li-i,   nda-bon-a   omuntu   **na**-it-<u>ite</u>
   today while 1SG-PST-eat-FV.PST, 1SG.CMPL-see-FV CL1.person **sit**.CL1-PASS-<u>STAT</u>

   'today while I was eating, I saw a person passing by' (ZT2009Elic28)

(336)   a.   tùchìmùlìndîlê
         tu-chi-mu-lind<u>ile</u>
         1PL-still-3SG-wait.<u>STAT</u>

         'we are still waiting for him' (ZT2009Elic173)

      b.   ndichiyaak<u>ite</u> afuwi nomulonga
         ndi-chi-yaak-<u>ite</u>   afuwi nomulonga
         1SG-pers-build-<u>STAT</u> near   com.CL3.river

         'I [my house] am still built close to the river' (ZT2007Elic123)

   I argue in this chapter that these distributional facts are explained by -ite's stativizing
properties.

6.2.1   -ite in Namibian Totela

Although Zambian and Namibian Totela varieties differ significantly in many respects (as
discussed in chapter 2), both use the -ite marker frequently and with similar effects. As

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[2]The subjunctive form would be as noted in 7.4.3, ndìsàkà mùtábè 'I want you to be(come) happy'.
Possible as the complement of -saka is an -ite form as a headless relative clause, as in (1):

   (1)   ndìsàká chìlúk<u>ìtè</u>

      ndi-sak-a   chi-luk-<u>ite</u>
      1SG-want-FV CL7-be.good-<u>STAT</u>.RC

      'I want the good one' (ZT2009Elic39)

[3]Dahl (1985:134-138) cites compatibility with 'still' as being a hallmark of resultatives; 'still' is infelicitous
with perfects (e.g. '#I have still built'). My understanding is that -ite predicates with -chi- indicate that a
state persists, while -chi- without -ite indicates that at perspective time, the situation has not yet reached
nuclear completion. See also 7.3.5.3.

will be seen below, comparing the usage restrictions of *-ite* in the Namibian and Zambian varieties may provide clues to its diachronic semantic and pragmatic development. For these reasons, examples from both varieties are included in this chapter, while other chapters restrict themselves primarily to data from Zambian varieties. Examples from Namibian varieties are marked with (NT). A few key formal differences should be noted.

Neither *-li-* nor *-la-* occurs in Namibian Totela varieties. Instead, the subject marker is followed immediately by the (macro)stem.

The temporal range of *-ite* is broader in Namibian Totela. For example, in the associative domain in Zambian Totela, *-ite* locates perspective time within the *-ite* state, resulting in present statives. It may not occur with past marker *-na-* In Namibian Totela, in contrast, *-ite* occurs with hodiernal imperfectives, which are marked with *-la-* (not to be confused with non-completive disjunctive marker *-la-* in Zambian Totela):

(337) *Ndi<u>le</u><u>ke</u><u>le</u> hanze masikusiku. Handi**le**<u>ke</u><u>le</u> hanze ndalya*

    ndi-**la**-ik<u>ele</u>   hanze   masikusiku.
    1SG-PST-sit.down.STAT CL16(LOC).outside CL6.morning.
    ha-ndi-la-ik<u>ele</u>   hanze   nda-li-a.
    when-1SG-PST-sit.down.STAT CL16(LOC).outside 1SG.CMPL-eat-FV

    'I sat [was sitting] outside this morning. While I was sitting, I ate.' (NT2007Elic34)

-ite also occurs with Namibian Totela's hodiernal and posthodiernal future markers, with an additional *-ku-* imperfective marker.[4] (338a) shows *-ite* with hodiernal future marking in Namibian Totela.[5] (338b) and (338c) show *-ite* with posthodiernal future marking, which can refer to situations ranging in time from the day after perspective time to the distant future. Note that the non-*ite* form in the first clause in (338a) leads to inchoative interpretation, depicting the subject entering the sleeping state, while the *-ite* form in the first clause of (338b) depicts a state of sitting, rather than its inception through the action of sitting down.

(338)   a. Hodiernal future
        *Mundilaale masiku. **Hase**ndi**ku**l<u>ee</u>le, mundiloote.*
        mu-ndi-laal-e   masiku.   **hase**-ndi-**ku**-leele
        HOD.FUT-1SG-sleep-FV.SBJV CL6.night. COND.HOD.FUT-1SG-IPFV-sleep.STAT
        mu-ndi-loot-e
        hod.fut-1SG-dream-FV.SBJV

        'I will sleep [fall asleep] tonight. While I am sleeping, I will dream.' (NT2007-Elic34)

---

[4]*-ku-* is glossed in these examples as IPFV; its distributions and functions require further examination.
[5]Recall that Zambian Totela does not have dedicated hodiernal future marking.

b. Posthodiernal (near) future

Kandi**ku**ik<u>ele</u> izoona izuba lyonse. **Hasina**ndi**ku**ik<u>ele</u>, kandilapele.

ka-ndi-**ku**-ik<u>ele</u>   izoona   izuba   li-onse.
POSTHOD.FUT-1SG-IPFV-sit.down.<u>STAT</u> CL5.tomorrow CL5.day CL5-all.

hasina-ndi-**ku**-ik<u>ele</u>,
COND.POSTHOD.FUT-1SG-IPFV-sit.down.<u>STAT</u>

ka-ndi-lapel-e
POSTHOD.FUT-1SG-pray-FV.SBJV

'I will sit [be sitting] all day tomorrow. While I am sitting, I will pray' (NT2007-Elic34)

c. Posthodiernal (far) future

hasinamuchembahale, **ka**mu**ku**nun<u>ite</u> chahwa

hasina-mu-chemb-ahal-e
COND.POSTHOD.FUT-2PL-get.old-NEUT-FV.SBJV

ka-mu-**ku**-nun-<u>ite</u>   chahwa
POSTHOD.FUT-2PL-IPFV-become.fat-<u>STAT</u> a.lot

'when you get old, you will be very fat' (NT2007Elic40)

6.3   *-ite* as a stativizer

In this section, I argue that *-ite*'s primary aspectual function is that of a stativizer. In analyzing *-ite* as a stativizer, it is important to keep in mind the distinction between lexical and aspectual stativity. Many arguments have been made against the common conflation of statives and progressives (e.g. Bertinetto 1994; Smith 1997; Glasbey 1998). These arguments hinge on the important observation that statives are a kind of lexical aspect – that is, stativity is an inherent property of certain verbs or verb constellations – while the progressive is an aspect, i.e. a grammatical temporal relation imposed on predicates of various types. While this distinction is crucial, it is still the case that statives, like progressives and resultatives, refer to a "stable" situation (Smith 1997:84). Statives do so by virtue of inherent lexical properties, while in progressive and perfect or resultative aspects, a subpart of a predicate's event structure is presented as stable and ongoing.

A number of grammatical aspects have been analyzed as introducing a state, not least the resultative and the progressive, both of which represent possible English translations of *-ite* forms in various contexts. See (among others) Parsons (1990:234ff), Michaelis (no date), and Nishiyama & Koenig (2004b) for discussion of the English Perfect as a stativizer (but cf. "Extended Now" theories of the Perfect, including McCoard (1978) and Portner (2003) for explanations of the Perfect that do not involve a "perfect state"); Vlach (1981) and Parsons (1990) for arguments that the English Progressive is a stativizer (but cf. Smith (1997), Bertinetto (1994), and Glasbey (1998) for arguments against this stance; Nishiyama (2006) for the Japanese resultative, perfect, and progressive marker *-te-i* as a stativizer; and

Kratzer (2000) for German stativizers. Jackson (2005) gives a general overview of stativizers with data from Chichewa, German, and Pima.

In analyzing -*ite*'s aspectual contribution as "stativizing", I claim not that -*ite* creates lexical items having a particular event structure, but rather that it "picks out" one subinterval of a predicate's event structure and presents it as a stable and relevant condition of the subject, a state of affairs that is ongoing with respect to perspective time and may be expected to continue beyond it unless other conditions arise to change it. Thus, depicting -*ite* as a stativizer is compatible with the claims of (e.g.) Bertinetto (1994), Smith (1997), and Glasbey (1998). I return at the end of this section to what this "stativity" means for dynamic (non-stative) verbs.

Multiple lines of evidence point to -*ite*'s function as a stativizer in Totela. These are discussed in sections 6.3.1-6.3.3 and summarized in 6.3.4.

6.3.1 Stativity and -*ite*'s distribution

A major piece of evidence for -*ite*'s stativizing function is its distribution and the corresponding temporal interpretations. -*ite* occurs in Totela most frequently with verbs depicting states, most of which are in some way inchoative, denoting entered states, thus belonging to the change-of-state situation type category. The root -*taba* means not 'be happy' but 'become happy', and so forth. With such verbs, -*ite* picks out the state brought about in the inchoative situation, thereby giving a resultative reading.

The use of -*ite* with change-of-state verbs is illustrated in examples (339)-(342). The (a) member of each pair in (339)–(341) shows a possible reading of the verb with non-completive -*la*-, which, as argued in chapter 4, locates perspective time prior to the situation nucleus. For example, in (339a), the subject is not represented as fully representing the characteristic 'be soaked'. In contrast, -*ite* creates a state within the post -nuclear coda phase, representing the results of the state change, as shown in the (b) examples. The subjects in (339b), then, have already reached the point where they may be referred to as soaked.

(339) a. *omwanja ulabomba*

    omwanja   u-la-bomba-a
    CL3.cassava CL3-NONCMPL-soak-FV

    'the cassava is soaking / the cassava will soak' (ZT2007Elic89)

  b. *omwanja ulibombete*

    omwanja   u-li-bomb-<u>ete</u>
    CL3.cassava CL3-PRES.STAT-soak-<u>STAT</u>

    'the cassava is soaked' (ZT2007Elic89)

(340) a. *ndìlàtàbà*

    ndi-la-tab-a
    1SG-NONCMPL-become.happy-FV

    'I'll be(come) happy'

b. *ndìlìtàbìtè*

ndi-li-tab-ite

1SG-PRES.STAT-be(come).happy-STAT

'I am happy' (ZT2009Elic39)

(341) a. *tùlézìbànà*

tu-la-izib-an-a

3PL-NONCMPL-come.to.know-RECIP-FV

'we will get to know each other / we're getting to know each other'

b. *tùlízìbènè*

tu-li-izib-ene

1PL-PRES.STAT-come.to.know-recip.STAT

'we know each other' (ZT2007Elic31)

(342) . . . *kabasesetwe omuntu eenke*

. . . ka-ba-ses-et-w-e   omuntu   eenke

. . . PREHOD.IPFV-3PL-marry-STAT-PASS-STAT CL1.person CL1.one

'. . . they were married to one [the same] person' (ZT2007Narr24.CS)

Example (339) is repeated in (343), with illustrations of event-structure construals of the forms with *-la-* and *-ite*, respectively. (343a) depicts a typical interpretation of *-nuna* 'get fat' with *-la-*, with the perspective time (PT) located in the pre-nuclear phase; the nucleus is represented as N. (343b) shows the same verb with *-ite*, which is depicted as picking out a state within the coda (C) phase and presenting it as a stable characteristic of the subject. Perspective time is located inside the *-ite* state.

(343) a. *balanuna*

ba-la-nun-a

3PL-NONCMPL-get.fat-FV

'they're getting fat'

259
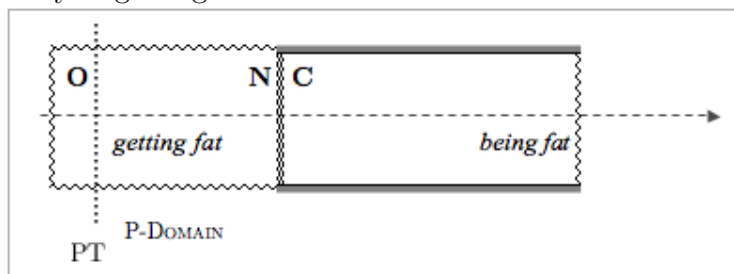
b. *balinun<u>ite</u>*

ba-li-nun-<u>ite</u>
1SG-PRES.STAT-get.fat-<u>STAT</u>

'they're fat'
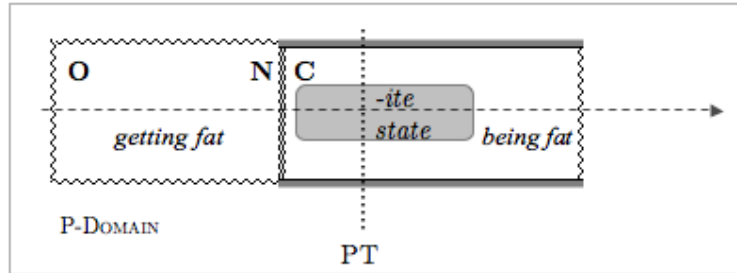
In addition to change-of-state verbs, where *-ite* picks out a state in the coda phase, *-ite* also occurs frequently with "true" (non-inchoative) statives, and with perception statives. The occurrence of *-ite* with true statives is shown in (344)-(346). As expected, *-ite*-marked verbs refer to a time frame within the single-phase stative situation, here, being rich, being cheap, or waiting. Marking with *-ite* seems to be the most natural way of expressing the meanings in (344)-(346). I argue in 6.4 that *-ite*'s relevance presupposition can account for its use with examples such as these.

(344)   *ishabo kafum<u>ite</u>*

ishabo   ka-fum-<u>ite</u>
their(3PL).father PREHOD.IPFV-be.rich-<u>STAT</u>

'their father was rich' (NT2007Narr9.BM *Muntu Nomufwakazi Wakwe*)

(345)   *chichip<u>ite</u>*

chi-chip-<u>ite</u>
CL7-be.cheap-<u>STAT</u>

'it is cheap' (NT2007Elic57)

(346)   *ano tulilind<u>ile</u> okuti aba abakwayamasta beeze*

ano tu-li-lind-<u>ile</u>   okuti aba   aba-kwayamasta
now 1PL-PRES.STAT-wait-<u>STAT</u> that CL2.DEM CL2-choir.masters
ba-iz-e
CL2-come-FV.SBJV

'now we're waiting for those choirmasters to come' (ZT2007Narr22.VB, *Sunu*)

Interpretations with perception statives are similar, as shown in (347), which contrasts a *-la-* form in (347a), with relatively free temporal interpretation, with the corresponding *-ite* form, which references a time after entry into the state.

(347) a. *ndìlásùwà*

      ndi-la-suw-a

      1SG-NONCMPL-hear-FV

      'I hear/am hearing/will hear'

    b. *ndìlísùwìlè*

      ndi-li-suw-<u>ile</u>

      1SG-PRES.STAT-hear-<u>STAT</u>

      'I hear' (or: 'I understand')

Recall from previous chapters that perception statives are sometimes construed as inchoative (change-of-state), i.e. the nucleus represents punctual entry into the state, which is itself the coda phase. These differing construals are not of particular importance in the understanding of *-ite*, which picks out the stative phase, and does not in general seem to distinguish inchoative from "truly" stative perception statives. The *-ite* form of *-suwa* 'hear, feel, understand' is very commonly used with the resultative-type meaning 'I understand' (because I have understood). On this reading, an inchoative construal seems likely, with the nucleus representing the point at which understanding is attained. That *-ite* is frequently used with this reading is evidence that it refers to a state (condition) of the *subject*, rather than merely a phase of the situation's event structure itself. This distinction is discussed in greater detail in subsequent sections.

Thus, *-ite* is frequent when the situations referenced have natural states associated with them: change-of-state verbs have a coda state, and stative verbs a single state. *-ite* occurs less frequently with durative verbs. Once again, it is more compatible with duratives that typically entail a coda state, such as *-biika* 'hide', as in (348), which entails a state of being hidden for the object, here, co-referential with the subject.[6]

(348) *ndìlílìbììkítè*

    ndi-li-li-biik-<u>ite</u>

    1SG-PRES.STAT-REFL-hide-<u>STAT</u>

    'we are hiding [hidden]' (ZT2007Elic129)

With durative verbs without a result state *-ite* is less common, although it occurs. Typically, the *-ite*-marked verbs have a progressive interpretation, as in (349), produced by a consultant in conversation.

(349) *ndifonete*

    ndi-fon-<u>ete</u>

    1SG-telephone(v)-<u>STAT</u>

    'I'm phoning / I'm on the phone' (NT2007Elic74, *conversation*)

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[6]The object need not be coreferential with the subject, as shown in examples with direct objects (e.g. (330). Acting upon an object may still create a resultant state for the subject that is relevant in discourse.

Thus, the distribution of *-ite* suggests strongly that it has a stativizing function. It occurs most commonly with situations that have an associated state somewhere in their event structure. When the associated state is not obvious, *-ite* picks out a phase to treat as a state, giving progressive readings with many durative verbs, as in (349) above and in (350) below, where a possible *-ite* state is illustrated with the verb *-nenga* 'dance'.

(350) *balineng<u>ete</u>*

    ba-li-neng-<u>ete</u>
    3PL-dance-STAT

    'they are dancing' (ZT2007)
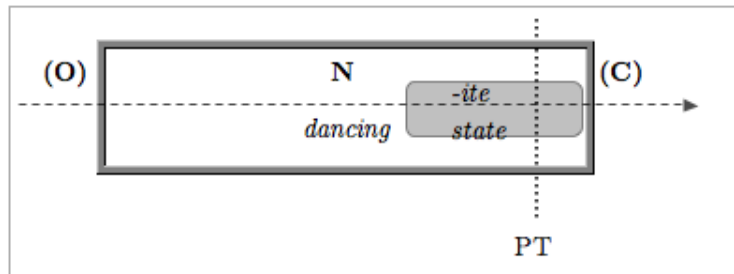
Further evidence of stativity is seen in *-ite*'s interaction with semelfactive verbs: I have no attested examples with such verbs, and consultants who accepted them as grammatical in elicitation sessions gave them a progressive, iterative interpretation. Construed as completely punctual (although of course having duration in the actual world), semelfactive verbs cannot be associated with a state of any duration, unless the situation repeats for a period of measurable duration, as in (351).

(351) *tulikamb<u>ite</u>*

    tu-li-kamb-<u>ite</u>
    1PL-PRES.STAT-clap-STAT

    'we are clapping' (ZT2007Elic124.SM)

It is important to note that examples such as (350) and (351) are often rejected by consultants in elicitation, although rejection is variable and examples rejected in elicitation are sometimes attested in actual discourse, and consultants are virtually always able to give a temporal interpretation of the examples the reject. Noteworthy is that the rejected examples are not as clearly associated with a state as are change-of-state verbs, stative verbs, and verbs with entailed result states.

6.3.2 Stativity requirement

Section 6.3.1 showed that *-ite* prefers situations with an associated state, although associated states may be constructed for situations that do not inherently have them to allow

for interpretation of *-ite*. In fact, the requirement that a state be associated with *-ite* is unbreakable, as shown by the contrast in (352). The *-ite* form is only felicitous with *-wa* 'fall' if uttered while the subject is still on the ground (352a). A speaker uttering (352b), in contrast, may or may not still find herself in the coda phase resulting from the fall (i.e. being on the ground).

(352)   a. *tuliwiile*

tu-li-u-iile

1PL-PRES.STAT-fall-STAT

'We have fallen (and are still on the ground)' (ZT2007Elic123.VK)
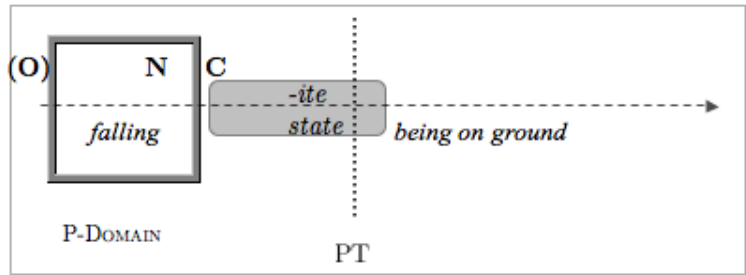
b. *ndawa*

nda-u-a

1SG.CMPL-fall-FV

'I fell (and possibly got up again)'
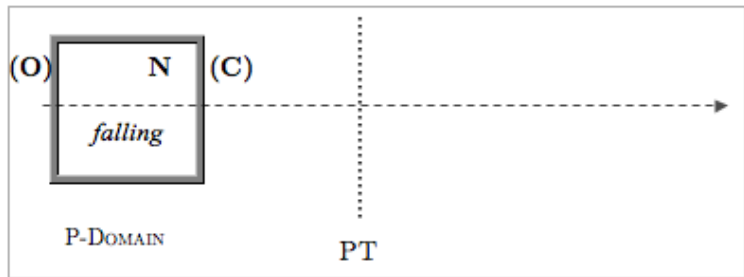
Thus, *-ite* requires that a state hold, while completive *-a-* has no such requirement and is instead vague with regard to the coda state.[7]

6.3.3   Co-occurrence restrictions with *-ite*

A final piece of evidence for *-ite*'s stativity is that it cannot co-occur with completive marker *-a-* or non-completive *-la-*, as discussed in 6.2. These markers are basically punctual, situating perspective time at a point with respect to a situation's nucleus. *-ite*, on the other hand, requires a non-punctual state. Thus, *-ite* may co-occur with prehodiernal imperfective

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[7]Recall from chapter 3, however, that *-a-* with change-of-state verbs has a cancellable result state implicature.

ka- as in (353a), but not with prehodiernal completive marking, as in (353b). Recall from chapter 5 that the prehodiernal *-ka-* with completive *-a-* conspires to produce a perfective reading; a state ongoing at perspective time (evoked by *-ite*) is incompatible with perfective semantics, and, indeed, with the punctual semantics of completive *-a-* and non-completive *-la-*, which relate only to (punctual) nuclear completion.

(353)   a.   ***ka****tupengete*
            ka-tu-peng-ete
            PREHOD.IPFV-3PL-suffer-STAT

            'we were suffering' (ZT2007Elic113)

        b.   **twa****ka****pengete*
            twa-ka**-peng-ete
            1PL.CMPL-PREHOD-suffering-STAT

            (intended): 'we were suffering' (or 'we suffered') (ZT2007Elic136)

6.3.4   *-ite*'s stativity: summary and outlook

The preceding sections have argued that *-ite* selects a phase from a situation's event structure and presents it as an undifferentiated state, associated with the subject. It occurs most commonly with verbs referring to situations with a conventionally associated state, but may also coerce states when a state is not conventionally available. It does not co-occur with markers that do not select a state, such as completive *-a-* or non-completive *-la-*, although these may situate (punctual) perspective time within a state phase of a situation's event structure.

The analysis of *-ite* as selecting a state unifies its aspectual semantics; there is no distinction between progressive and resultative interpretations, as both are construed as states associated with the subject. This allows also for distinctions with true progressive constructions, which must select an active phase from a situation's event structure. *-ite*, in contrast, may select either the nuclear phase or a post-nuclear coda phase, as long as a state may be associated with it. The potential contrast is shown in (354). The progressive form in (354a) selects as topic time part or all of the nuclear phase of the durative verb *-samba* 'bathe', and locates perspective time within that topic time.[8] In (354b), on the other hand, *-ite* can pick out a state within the coda phase, e.g. when the subject is wet from bathing, for a resultative reading.

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[8]The illustration in (354a) may be taken as a preliminary approximation of a progressive diagram, as the precise semantics and pragmatics of the progressive are not dealt with in detail in this study.

(354) a. *ndìn'ôkùsàmbà*

        ndi-ina   oku-samb-a
        1SG-have INF-bathe-FV

        'I am bathing'
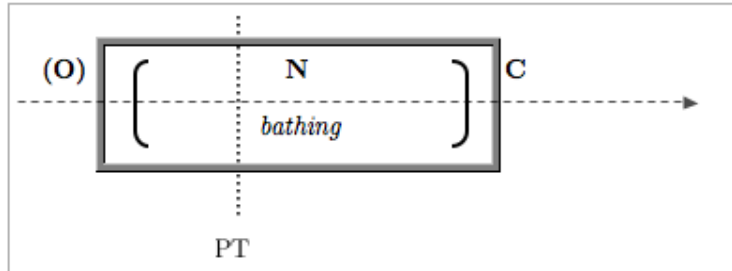
  b. *ndìlìsàmbìtè*

        ndi-li-samb-ite
        1SG-PRES.STAT-bathe-STAT

        'I am bathed'
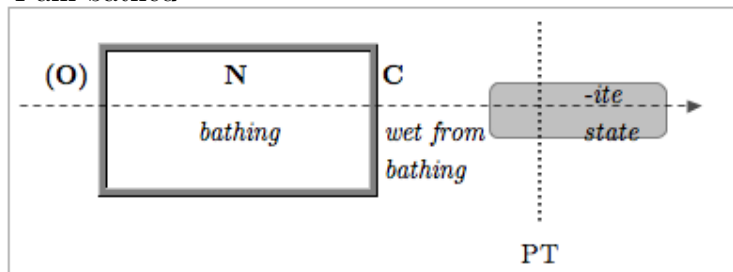
On the other hand, as seen in examples such as (355) (repeated from (350)), *-ite* may also pick out a state from within the nuclear phase.

(355) *balinengete*

      ba-li-neng-ete
      3PL-dance-STAT

      'they are dancing' (ZT2007)
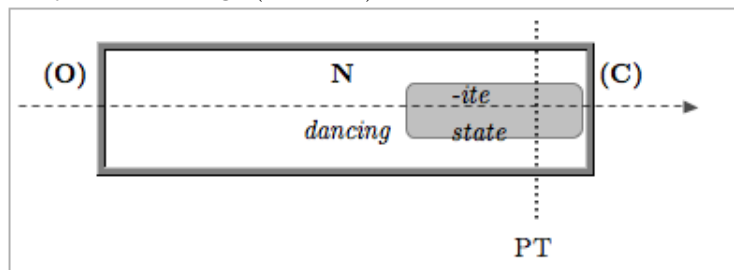
An analysis of *-ite* as a stativizer, then, rather than sometimes a progressive marker and sometimes a resultative, unifies *-ite*'s semantics.

A question raised by the characterization of *-ite* as a stativizer is whether dynamic (non-statives) and stative situations can be said to have the same "kind" of stativity when stativized by *-ite*. Suzuki (1996) contrasts "dynamic" and "non-dynamic" states. Suzuki's (1996) notion of "dynamic states":

> We characterize dynamic states as states which require the effort from inside or outside to continue. In other words, dynamic states will only continue if they are continually subject to a new input of energy. And we characterize non-dynamic states as states which require no effort to continue (Suzuki 1996:273)

When *-ite* forms are translated with the English Progressive, this ongoing state does *not* refer directly to the action depicted by the predicate, which requires energy to maintain, but to the subject's related *state* – here, the state of participating in an activity. The state would require outside impetus – here, the cessation of the activity – to change it.

Thus, I argue that, by invoking a state that describes the subject's condition, *-ite* does not require a contrast between dynamic and non-dynamic states; all are non-dynamic with respect to the subject. The selection of a state and its reference to the subject, rather than to the situation itself, requires an additional component of RELEVANCE in the analysis of *-ite*. I argue for *-ite*'s relevance component in the next section, after demonstrating that aspectual semantics alone are not enough to account for *-ite*'s interpretive possibilities.

6.4   *-ite* and relevance

As noted above, *-ite* typically selects from the coda phase of change-of-state verbs, and the nuclear phase of statives and other durative verbs. With durative verbs with entailed result (coda) phases, or with natural endpoints – a class I will refer to as "telic duratives", for convenience of labeling – *-ite* often selects from this phase. However, the distinction between telic and atelic duratives does not sufficiently account for possible temporal interpretations with *-ite*.

For example, *-ite* in many cases has resultative interpretations with durative verbs without natural endpoints, as shown in (354b) above and in the following examples.

(356)   a.   *ndilichaab<u>ite</u> (inkuni)*

        ndi-li-chaab-<u>ite</u>   (inkuni)
        1SG-PRES.STAT-collect.wood-<u>STAT</u> (wood)

        'I have collected wood' (ZT2007Elic101.VK)

   b.   *ndìlínywìnè*

        ndi-li-nyw-<u>ine</u>
        1SG-PRES.STAT-drink-<u>STAT</u>

        'I have drunk' (ZT2007Elic113.VK)

The example in (356a) could be used in a situation where, for example, a speaker had worked long and collected enough wood to keep a fire for many days. The utterance in (356b) might be an excuse for not accepting further food or drink.

Conversely, some verbs with natural nuclear endpoints and clear result coda phases tend to receive progressive interpretations with *-ite*, as in (357). The examples in (357) represent interpretations given in elicitation by consultants when the utterances were presented without context.

(357)   a. *ndiihik<u>ite</u>*

         ndi-ihik-<u>ite</u>
         1SG-cook-STAT

         'I am cooking' (NT2007Elic66)

   b. *ndiihay<u>ite</u>*

         ndi-ihay-<u>ite</u>
         1SG-kill-STAT

         'I am killing' (NT2007Elic66)

Similarly, path verbs like *-iza* 'come' generally have a progressive reading with *-ite*, even though 'come' has a natural endpoint. This reading is illustrated in (358):

(358)   *ndiliiz<u>ite</u>*

      ndi-li-iz-<u>ite</u>
      1SG-PRES.STAT-come-STAT

      'I am coming' (ZT2007Elic113)

Most strikingly, speakers both used and interpreted verbs with *-ite* with varying temporal interpretations, with the *-ite* state being located either in the situation nucleus (359a), or in a construed coda state (359b).

(359)   a. *ndilineng<u>ete</u>*

         ndi-li-neng-<u>ete</u>
         1SG-PRES.STAT-dance-STAT

         'I am dancing' (ZT2007Elic89)

   b. <u>ndilineng<u>ete</u></u>

         ndi-li-neng-<u>ete</u>
         1SG-PRES.STAT-dance-STAT

         'I have danced' (ZT2007Elic101)[9]

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[9]The speaker who offered the interpretation in (359b) offered a scenario in which the speaker had been up all night dancing and was now too exhausted to move.

Such clashing interpretations arose with several predicates in elicitation sessions. For example, 'read two books-*ite*' was interpreted as both a past and a present action, as shown in (360) .

(360) *ndibal<u>ite</u> imbuka zobile*

 ndi-bal-<u>ite</u>   imbuka   zobile
 1SG-read-STAT CL10.book CL10.two

 'I {am reading} / {have read} two books' (NT2007Elic79)

Table 6.1 summarizes attested interpretations of -*ite* with various situation types. Note that both telic and atelic durative verbs (i.e. verbs with and without an entailed completion point/result state) may receive varying interpretations with -*ite*. Not all of the interpretations and uses in table 6.1 are equally common, but all are possible, at least for some speakers.[10]

I propose that -*ite*'s state selection from within a situation's event structure may be accounted for under an analysis of -*ite* as presupposing *relevance*. It selects a state, associated with the subject, relevant to a question under discussion in the current discourse. Before fleshing out the specifics of this proposal in 6.5, I give general background on relevance theory, and how it has been applied to aspectual puzzles (§6.4.1), followed by evidence that -*ite* has a relevance presupposition (§6.4.3).

6.4.1   Relevance

The notion of relevance has been invoked frequently to explain interpretive possibilities for aspectual markers including, most notoriously, the perfect. Although this chapter's analysis of -*ite* does not posit a perfect (aka anterior) function, either synchronic or historical (as discussed at length below in sections 6.5.1 and 6.7), previous analyses of perfect marking are worth some discussion at this point, and provide a precedent for and exemplification of the relevance presupposition posited for -*ite*.

The notion of relevance, crucial to the analysis of -*ite* put forth in this chapter, is built into most definitions of the perfect (e.g. Comrie 1976:56; Bybee *et al.* 1994:69, which tend to read something like "a past situation with present relevance"; analyses of perfects must therefore account for present relevance in some fashion. Some of these analyses contain insights useful for the analysis of -*ite*. Cross-linguistically, markers labeled "perfect" or "anterior" often have complex semantics requiring a pragmatic, relevance-based analysis; several of these are discussed in 6.4.2.

Portner (2003) in contrast, invokes pragmatic *presupposition* to explain the English Perfect's multiplicity of uses. Under his account, the Perfect's temporal semantics are limited and based on a TEMPORAL SEQUENCING PRINCIPLE involving situation type: non-stative

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[10]As noted in previous sections, the most common uses of -*ite* are with states and change-of-state verbs, as well as with verbs with a clear result state (here represented as "telic durative". Least favored, but still attested in both naturalistic and elicitation sessions, is -*ite* with atelic duratives.

Situation Type	Temporal Interpretation	Examples
STATE	STATIVE (relevant property)	chi-zimbuluk-<u>ite</u> CL7-circle(V).NEUT-<u>STAT</u> 'it's round' (NT)
ATELIC DURATIVE	PROGRESSIVE (often understood as a property of the subject) PAST (selects from relevant result coda phase)	ndi-li-neng-<u>ete</u> 1SG-PRES.STAT-dance-<u>STAT</u> 'I am dancing' ndi-li-chab-<u>ite</u> inkuni 1SG-PRES.STAT-collect.wood-<u>STAT</u> CL9.wood 'I have collected [plenty of] wood'
TELIC DURATIVE	PAST (selects from coda phase) PROGRESSIVE (selects from nuclear phase)	ndi-li-yaak-<u>ite</u> afuwi nomulonga 1SG-STAT-build-<u>STAT</u> near COM.CL3.river '[My house is] built close to the river' ndi-li-iz-<u>ite</u> 1SG-STAT-come-<u>STAT</u> 'I am coming'
CHANGE OF STATE	STATIVE (selects from coda phase)	ndi-li-tab-<u>ite</u> 1SG-STAT-become.happy-<u>STAT</u> 'I am happy'

Table 6.1: Interpretations of *-ite* by situation type

situations occurred prior to reference time, while stative predicates may hold either at or before reference time. Specific interpretations are determined by speakers' use of temporal adverbials and by hearer negotiation with a modal presupposition of RELEVANCE. Portner argues that while other aspects may, of course, be used in utterances that are relevant to the immediate question under discussion, the Perfect *presupposes* the utterance's relevance, thereby forcing hearers to match one of Comrie's categories to the immediate discourse context.[11]

Portner takes his formal definition of relevance from Roberts (1998), who employs the concepts of discourse topic and common ground. Arguing that information structure relates to communicative strategy, rather than to individual units of communication, Roberts pro-

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[11]Portner's analysis contains another pragmatic component, as well, based on the EXTENDED NOW theory of McCoard (1978) (cited in Portner 2003). Portner claims that the present tense component of Present Perfect temporal semantics carries a presupposition that the situation described falls within an interval of which the time of utterance is "a final subinterval" Therefore, the Present Perfect must be used for something within a time interval where literal present time is plausibly a part (Portner 2003:406). The interval included in the Extended Now is contextually determined, based on the speaker's goal of communicating "nearness" to an event (Portner 2003:496-497).

poses that information structuring in cooperative conversation can be viewed as a "game" in which interlocutors work together to answer what she terms THE BIG QUESTION, namely, "*what is the way things are?*" (Roberts 1998:4). (See also 1.2.1.2.)

Particular conversations have more constrained DOMAIN GOALS that make up specific parts of this ultimate goal. Domain goals involve the evaluation of a set of propositions that constitute the IMMEDIATE QUESTION UNDER DISCUSSION'; in other words, the DISCOURSE TOPIC. Each utterance can be viewed as a "move" toward the achievement of a domain goal, by answering a question raised by a discourse and thereby reducing the CONTEXT SET, or the set of worlds for which the COMMON GROUND – the set of propositions accepted by all interlocutors – holds. An utterance is RELEVANT if it provides a complete or partial answer to the salient question in the current discourse (i.e., the immediate question under discussion), thereby reducing the context set.

Attempts to analyze the English Perfect have triggered heated debate, not least because of its numerous possible interpretations. Comrie (1976:56ff) catalogues several uses of the English Present Perfect: PERFECT OF RESULT ('Simon has sent us his article' → therefore we have the article), EXPERIENTIAL PERFECT ('Simon has been to New York' → he has had this experience), PERFECT OF PERSISTENT SITUATION ('Simon has taught history for almost a year' → he is still teaching), and PERFECT OF RECENT PAST ('Simon has (just) returned to Bundu'). An obvious question that arises in view of Comrie's categorization is whether the perfect's diverse uses can be unified under a monosemous analysis. Several such analyses have been put forward, most giving the perfect a relatively weak semantic meaning, supplemented by a pragmatic implicature or presupposition.

For example, Nishiyama & Koenig (2004a,b, 2010), based on theoretical and corpus studies, propose a monosemous and semantically-underspecified English Perfect: the Perfect introduces a semantically-empty PERFECT STATE, and hearers fill in the contextually appropriate reading via informativeness-based pragmatic implicatures, using a few simple inference patterns.

Perfect markers in a number of languages have complex temporal interpretations, and I briefly survey some of these before moving on to a more detailed analysis of *-ite* in Totela.

6.4.2 Perfects (and similar puzzles) in other languages

Ebert (1995) lists numerous languages – Mongolian, Arabic, Seneca, and Nepali, among others – in which perfect and progressive forms overlap or are ambiguous in meaning.[12] Perhaps most intriguing is the Japanese *-te-i-* marker, described in detail by Shirai (1998) and Nishiyama (2006), among others. Like Totela's *-ite*, *-te-i-* can contribute progressive or resultative meaning; additionally, *-te-i-* may have existential and experiential perfect readings.[13] According to Shirai's characterization, achievement verbs generally have a stative resultative reading with *-te-i-*, while activity and accomplishment verbs are usually

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[12]Ebert notes that most of the languages in which resultative and progressive readings overlap are found in Asia; however, the situation in Totela suggests that this may not be a purely areal phenomenon.

[13]The exact contexts conditioning which reading obtains are somewhat disputed, as might be expected when pragmatics are heavily involved.

progressive.[14] Apparently, all verbs also have the potential for existential perfect readings (Nishiyama 2006:188).[15] The suffix can also be used as a pluperfect.

It is not entirely surprising that there should be cross-linguistic overlaps between progressive, resultative, and perfect forms. As Kudo (1989, 1995; discussed in Shirai 1998:680) points out, the three aspects share some common features: progressives and resultatives are durative and imperfective, while resultatives and perfects both focus on the posttime of a situation. Michaelis (no date) and others further note that both progressives and the perfect have "stativizing" functions.

Sasse (2002:242) posits that "the progressive reading is [in most cases] due to a reinterpretation of an erstwhile resultative form", noting that a "general stative" may also develop to have resultative and progressive meanings.

In Bantu, aspects labeled "anterior" (used to avoid conflation of perfect and perfective aspect; anterior is basically synonymous with perfect) tend to have temporal interpretations of either past or present based on situation type, according to Nurse (2008):[16]

> For an action verb, for example, anterior represents a situation that is completed but relevant, whereas for a stative verb anterior represents the continuing state resulting from an action initiated in the past (Nurse 2008:73).

The relative lack of in-depth semantic and pragmatic descriptions of Bantu tense and aspect within specific languages makes Nurse's claim hard to evaluate. It may be the case that, as in Totela, the stative/non-stative contrast holds for the most common predicates; the more detailed descriptions of other Bantu languages (e.g. Machobane 1985; Seidel 2008) seem to show that, as in Totela, the temporal possibilities with "anterior"-like forms are more complex than a simple division along situation-type lines, and some additional interpretive principle is required.

In a variety of languages, therefore, temporal semantics alone are not adequate to account for interpretations of the perfect and related aspects. I now argue that -*ite*'s temporal interpretations are the result of a relevance presupposition, similar to that proposed in (Portner 2003) for the English Perfect.[17]

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[14]Nishiyama (2006:187-188) refers to achievement verbs as "punctual" or "change-of-state"; the interpretation of these verbs as resultative parallels the interpretation of Totela change-of-state verbs as resultative.

[15]Whether the form is merely between progressive/resultative and existential perfect, or whether two homophonous forms exist, is heavily debated.

[16]Nurse (2008:154) further notes that in many non-Bantu Niger-Congo languages, the *perfective* aspect has the same temporal interpretations he claims for the Bantu perfect. Cover (2007:2) examines these temporal interpretations in detail for Badiaranke, an Atlantic language of Senegal, Guinea, and Guinea-Bissau, offering a modal account: the crucial feature of the Badiaranke perfective is not merely completion, but *completion in the actual world* (or the world treated as actual). That is, "the situation has developed to its fullest extent" and is not expected to change (Cover 2007:8). Because stative situations do not change without extra energy (as opposed to non-stative situations, which typically require energy to continue on their course), statives with perfective aspect hold at perspective time, and are further expected to continue to hold.

[17]I argue in 6.5.1 that -*ite* cannot be analyzed as a perfect, although it shares some pragmatic properties with many perfects.

6.4.3 *-ite*'s relevance presupposition

As shown in the introduction to this section, the particular phase that *-ite* selects for durative verbs is undetermined by temporal semantics. Any way Totela situation type categories are sliced, *-ite* defies prediction based on lexical aspect: durative verbs, both telic and atelic, may receive interpretations of ongoing situation or past situation.

I propose that *-ite* also carries a relevance presupposition, which determines its temporal interpretations within context. This presupposition is a conversational tool that speakers employ to coerce hearers to an interpretation of *-ite*'s state selection with respect to the situation's event structure. The interpretation must answer a question salient in the current discourse. It is in this sense that *-ite* is an information-structuring marker as discussed in section 6.4.1 above: speakers can use *-ite* to manipulate the question under discussion.

Because *-ite*'s temporal interpretations are determined pragmatically through context, they can vary from verb to verb, and even with the same verb in varying contexts, depending on what is viewed as most relevant for answering the current question under discussion. The answer may be provided by a state that is either the result of a past situation or change-of-state (resultative reading), or a state associated with an ongoing situation (progressive reading).

This analysis follows Portner's (2003) analysis of the English perfect, discussed above. Portner notes that

> ...while the past may indicate a current result of relevance to the discourse topic, it does not linguistically presuppose that it does so. This makes for at least two significant differences. On the one hand, a simple past tense sentence, but not the perfect, may be used as part of a simple narrative, a story about the past, and describe an event which in and of itself has no particular current relevance. (The narrative as a whole might be required to be relevant, by some general pragmatic principle, but the particular event would not be.) And on the other, a speaker can use the perfect in a situation in which it is not obvious how the presupposition is satisfied in order to prod the hearer into uncovering (and accommodating) the type of discourse topic that he or she has in mind (Portner 2003:502).

The distinction between a relevant utterance and an utterance that presupposes relevance is thus a crucial one.

As with its stativizing function, a variety of evidence points to *-ite*'s relevance presupposition. These are discussed in the next subsections.

6.4.3.1 Relevance and *-ite*'s distribution

Key evidence for *-ite*'s relevance presupposition is found in its distribution. It occurs quite frequently with verbs that depict temporary states, such as 'tired' or 'hungry', as seen in previous sections. Such predicates depict states immediately relevant to the subject's state

of being or other question under discussion. This is illustrated in (361), where the question under discussion is overt, and the *-ite* form leads to an answer:

(361) [context: Q: do you think the king will go to sleep? A: (yes), he BE TIRED][18]
umfumu akang<u>itw</u>e

umfumu   a-kang-<u>it</u>-w-<u>e</u>
CL1.chief CL1.tire.out-<u>STAT</u>-PASS=<u>STAT</u>

'the chief is tired [so he'll go to sleep]' (adapted from Dahl 1985:Q58) (NT2007Elic17)

On the other hand, *-ite* occurs far less frequently with verbs like *-bala* 'read' and *-ñola* 'write', which do not immediately suggest an associated state. The *-ite*-marked passive form of *-ñola*, in contrast, is fairly common, and receives a resultative interpretation, as in (362). The passive form of 'write' does have an associated state (being written); furthermore, it is relevant in (362) to answering the question under discussion, in this case, why Totela has low prestige and is not learned by children.

(362) *tachiñol<u>etw</u>e mwimbukka*

ta-chi-ñol-<u>et</u>-w-<u>e</u>   mwimbukka
NEG-CL7-write-<u>STAT</u>-PASS-<u>STAT</u> in.CL10.book

'it's not written in books' (ZT2007Elic124, *given as an explanation for Totela's low prestige*)

Still, *-ite* may be used with verbs that do not have an associated state. In these cases, *-ite* depicts a state associated with the subject that is related to the situation referenced. Again, this state answers a question posed overtly or covertly in discourse. An example is given in (363), which was volunteered as an answer to the (embedded) question of whether the speaker's brother was busy. The answer, with *-ite*, describes the brother's state, implicating that he was, in fact, busy.

(363) [context: 'what did your brother say yesterday when you asked him if he was busy?']
nabati ye kababez<u>ete</u> zipula

na-ba-ti   ye   ka-ba-bez-<u>ete</u>   zi-pula
PREHOD.IPFV-3PL-say COMP(?) PREHOD.IPFV-3PL-carve-<u>STAT</u> CL8-chair

'he said that he was carving chairs' (adapted from Dahl 1985:Q156) (NT2007Elic17)

In most cases, e.g. if the activity itself had been questioned, a progressive or general present construction would be favored with *-beza* 'carve'. It is notable, then, that this otherwise marked form of an activity verb was volunteered in a context where a person's state of being busy is under question. Here again, *-ite* answers a question overtly posed in the discourse.

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[18]Dahl (1985) uses uninflected forms in all caps for the target tense/aspect/mood forms in his survey, in an effort to avoid undue English influence.

Another example is given in (364). This utterance was spoken by a Namibian consultant as an explanation for why he was unable to talk with me for a moment: he was making a brief phone call, but his attention would be back on our elicitation session shortly.[19]

(364)   *ndifon<u>ete</u>*

    ndi-fon-<u>ete</u>
    1SG-telephone(v)-STAT

    'I'm on the phone' (NT2007Elic74, *conversation*)

While these examples are attested in elicitation and natural conversation, speakers tend to reject the use of *-ite* with activity verbs like 'dance' unless they can construe a relevant state associated with the subject.

Similarly, (365) was uttered in response to a question about whether a message had been delivered; the subject of the sentence is the child who had been instructed to deliver it. Here, as in (363) and (349), *-ite* picks out a state within the situation nucleus.

(365)   *akan<u>ite</u> kuyenda*

    a-kan-<u>ite</u>   ku-yend-a
    3SG-refuse-STAT INF-go-FV

    'she is refusing to go' (NT2007Elic56, *conversation*)

Here, the question under discussion is not the act of refusing, but the failure of the message to be delivered.

(366) provides another example in which *-ite* clearly explains a question in the discourse context by picking out a particular state associated with the situation referenced is seen in. A consultant offered (366) as an explanation for her refusal of the handful of roasted groundnuts I was offering:

(366)   *aliman<u>ite</u> ameeno*

    a-li-man-<u>ite</u>   ameeno
    CL6-PRES.STAT-finish-STAT CL6.teeth

    '[my] teeth are all gone' (ZT2007Elic116)

All of the examples in this section are relevant for answering a currently salient question under discussion.

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[19]In fact, (349) was uttered when the consultant was *just about* to make a phone call. Still, his state at the moment was that of being in the process of making a phone call, and he was unavailable for other activities.

6.4.3.2 Contrast with completive -*a*

A second piece of evidence for -*ite*'s relevance component is the alternation between -*ite* and completive -*a*- for change-of-state verbs. As discussed in chapter 3, change-of-state verbs marked with -*a*- typically have an implicature that the coda state continues at perspective time. Thus, temporal interpretations with -*a*- often overlap with -*ite*'s temporal interpretations.

An -*a*-/-*ite* alternation is shown in (367).

(367)   a. *ndakatala*

        nda-katal-a
        1SG.CMPL-tire-FV

        'I am tired' (∼ I have become tired) (ZT2007Elic101)

   b. *ndilikatele*

        ndi-li-katele
        1SG-PRES.STAT-tire.STAT

        'I am tired' (ZT2007Elic101)

When asked about such pairs, with no additional context given, speakers found the differences between -*a*- and -*ite* pairs somewhat difficult to express. They generally suggested that -*ite* implied a stronger, more immediate state. Additionally, consultants often tried to construct contexts for the -*ite* utterances. For example, for (367b), a speaker described a scenario in which the sentence's utterer was lying on a mat after a hard morning's work and wanted to explain his inability to do more work at that time. That is, a question under discussion was created to justify the use of -*ite*.

The specific content of the contexts provided (which varied considerably) is less important than the fact that speakers invented contexts at all. Such context creation is expected if -*ite* presupposes relevance to the discourse topic, and no context is otherwise given that indicates the immediate question under discussion. In providing background scenarios, speakers attempt to make sense of the use of -*ite*.

6.4.3.3 -*ite* and relevance with "true" statives

As noted in 6.3.1, -*ite* also occurs with "true" (non-change-of-state) statives. Because these verbs already depict states, the use of -*ite* would seem redundant if its only function were as a stativizer. However, special interpretive effects are in evidence when -*ite* is used with statives.

With verbs like -*hupula* 'think, remember', the -*ite* form appears more commonly in contexts in which the mental state of thinking is relevant to some other issue in the discourse situation, as in 'be quiet – I'm thinking!' or the following example:

(368) **_handilahupwile_** _bamayo hanu masikusiku ndatalika kulila_

ha-ndi-la-hupwile   ba-mayo   ha-nu   ma-sikusiku
when-1SG-IPFV-think.STAT 3PL-my.mother CL16(LOC)-now CL6-morning
nda-talik-a   ku-lil-a
1SG.CMPL-start-FV INF-cry-FV

'**while I was thinking** about my mother this morning, I started to cry' (NT2007-Elic76)

Such uses are expected if *-ite*'s use presupposes relevance either to the subject's condition or to a current situation or set of propositions.

Similarly, my impression is that *-ite* is often used with perception verbs when a speaker wants to confirm his or her perception, especially if it may be in doubt, e.g. *ndìlísùwìlè!* 'I understand!'.[20]

Additionally, use of *-ite* with statives often implies a temporary state, if such a contrast is available, as in (369).

(369) **_ndiikele_** _haKachansi inviki zobile; baClement_ **_baikala_** _haKahansi_

ndi-ikele   ha-Kachansi   inviki   zobile;   baClement
1SG-stay.STAT CL16(LOC)-Kachansi CL10.week CL10.two; CL2a.Clement
ba-ikal-a   ha-Kachansi
CL2A-stay-FV CL16(LOC)-Kachansi

'**I'm staying** in Kachansi for two weeks; Mr. Clement **stays** [=lives] in Kachansi' (NT2007Elic57)

The temporariness effect makes sense with a relevance presupposition: in many cases, a temporary state is more relevant to the question under discussion than a permanent might be. For example, in (369), the speaker is describing her current location which is affecting her life, whereas the second clause merely states a fact.[21] There may also be Gricean effects at play here. A form without *-ite* indicates a permanent state, so addition of *-ite* is expected to pick out something different, in this case, a temporary state.

In this case, we might expect the converse to be true, as well, i.e., temporary states would be depicted as more permanent with *-ite*. Inherently temporary stative lexical items are perhaps less common in Totela, since most temporary states are expressed with change-of-state verbs. One possible set of candidates would be perception statives. As noted in section 6.3.1, verbs such as *-suwa* 'hear, feel, understand' can indicate temporary perception

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[20]Note that *ndìlísùwìlè* is also often used to express feelings or emotions, e.g. *ndilisuwile amanzungwe* 'I feel dizzy' (ZT2009Elic134) or *kandisuwile nenza* 'I don't feel well' or 'I'm sad' (NT2006Elic11). Such uses, describing the current condition of the speaker (or other subject), are in line with *-ite*'s relevance presupposition, as well.

[21]Although I do not have specific data on this point, I predict that use of *-ite* for the second clause might be different with a different question under discussion, if, for example, baClement's life condition were being discussed.

with *-ite*, but are also frequently used to express understanding, a permanent property.[22] Another case of a potentially temporary state being depicted as permanent with *-ite* is shown in (370), with *-zinguluka* 'turn around (intr.), encircle' (from *-zinga* 'twist, braid, roll').[23]
   (370):

(370)   *chizingulukite*

       chi-zinguluk-ite
       CL7-encircle-STAT

       'it's round' (NT2007Elic57)

In this case, relevance to the discourse topic is inherent; a description is being offered presupposing an immediate question under discussion such as 'what is it like?'. Here, *-ite* creates a state from what would otherwise be an active situation, of encircling something or turning around (*-zinguluka*).

Thus, *-ite* lends special relevance effects to true states; it creates relevant states from non-stative predicates.

6.4.3.4   *-ite* in counterfactuals

-ite's relevance presupposition is also evident in its use in counterfactual clauses. In the protasis of (371a), the speaker imagines a state (being busy) that would be relevant to explaining the imagined, non-obtaining situation (not coming) in the apodosis. The speaker imagines a world in which she is in a busy state, and then describes the consequences of that state in the imagined world. Since those consequences do not hold, they serve as evidence that the state does not hold in the actual world. Here, the question under discussion is 'are you busy?'

In (371b), the speaker imagines a state (not knowing Totela) that would result from the imagined protasis (going to Samisisi).[24] In this case, the apodosis describes a characteristic of the speaker in the imagined world, answering a question like 'what would the world have been like if I hadn't gone to Samisisi?'

(371)   a. *kámbè ndìlípàtèhètè, kámbè sìnêzà*
         kambe   ndi-li-pateh-ete,   kambe   si-na-iz-a
         COUNTER 1s-PRES.STAT-be.busy-STAT, COUNTER 1SG.NEG-PST-come-FV
         'if I were busy, I wouldn't have come' (ZT2009Elic39)

---

[22]The other possibilities are *ndásùwà* with completive *-a-* and *ndìlásùwà* with non-completive *-la-*. The latter can, to the best of my knowledge, only mean 'I hear' or 'I feel'. The former can mean 'I understood', but does not, in my understanding, carry the same force as *ndìlísùwìlè* 'I understand'. Further data are required.

[23]See also example 439 in chapter 7.

[24]In fact, there were a number of excellent Totela consultants in Samisisi.

b. *kámbè ndàkàyá ꜜkwáSàmísìsì, kámbè tàndììzí èchìTòtèlà*

kambe	nda-ka-y-a	kwa-Samisisi,	kambe
COUNTER	1SG.CMPL-PREHOD-go-FV	CL17(LOC)-Samisisi,	COUNTER

ta-ndi-<u>izi</u>　　　echiTotela
NEG-2SG-know.<u>STAT</u>　CL7.Totela

'if I had gone to Samisisi, I wouldn't know Totela' (ZT2009Elic40)

6.4.4 *-ite* and relevance: summary

In this section, I have argued that *-ite* carries a presupposition of relevance: it presupposes that it answers a question under discussion in the current discourse. When *-ite* is used out of context, speakers attempt to create context that provides a "question" for *-ite* to answer. When a situation does not have a clear state associated with it, temporal interpretations with *-ite* are determined by which state is construed as relevant for answering the question under discussion. Because of its relevance presupposition, speakers can exploit *-ite* to establish the question under discussion, or discourse topic.

6.5　Summary of analysis of *-ite* as a stativizer, presupposing relevance

I have argued that *-ite* functions as a stativizer, selecting a phase from a situation's event structure and presenting it as a steady, ongoing state of the subject. With stative verbs, this phase is the single state associated with the situation referenced. Similarly, with change-of-state verbs, this state is the post-nuclear coda phase; the nucleus is construed as punctual and cannot be a state, and the pre-nuclear phase does not have clear content. With durative verbs, however, the phase selected by *-ite* is variable. Selection depends upon which phase is construed as relevant to the question under discussion in the current discourse: *-ite* carries a presupposition of relevance. The phase selected is the phase most salient for the state, or condition, of the subject within the discourse context. If a situation does not have a state associated with it, and most particularly if the subject's state does not serve to answer a question salient in the current discourse, use of *-ite* is dispreferred.

Because *-ite*'s relevance component is a presupposition, the hearer is forced to accomodate his or her idea of the immediate question under discussion to accommodate the *-ite* utterance as an answer to it. This process is illustrated in (372) and (373) for two examples, discussed above, in which hearers had differing interpretations of *-ite*'s temporal contribution. Differing context sets can account for these interpretive discrepancies. It should be noted that both of these examples were judged marginal by some speakers, but were given interpretations nonetheless. The context sets, including the question under discussion, in these examples, and particularly in (373), were constructed by me based on speaker comments about the examples, but still may not perfectly match native speaker intuitions; they are merely meant to serve as examples of a possible interpretation process.

(372) a. *ndìlìnèngètè*

    ndi-li-neng-<u>ete</u>

    1SG-PRES.STAT-dance-<u>STAT</u>

    'I {am dancing} / {have danced}' (ZT2007Elic101)

  b. [Context set 1: Someone has asked why the speaker is busy and unable to attend to other duties.]
Utterance: *ndilinengete*
Reading: 'I am dancing'
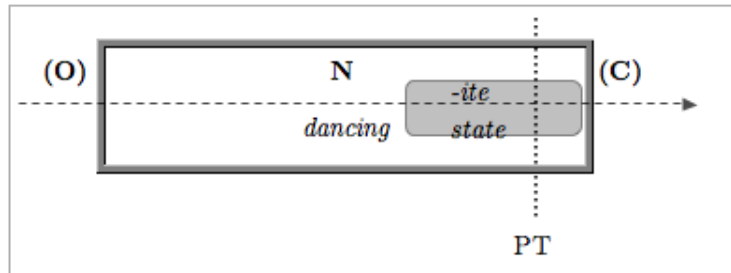
  c. [Context set 2: The speaker is exhausted after being up all night. The speaker is lying on a mat. The speaker is unable to do any work at the moment. Someone has inquired why the speaker can't do work.]
Utterance: *ndilinengete*
Reading: 'I have danced (or, have been dancing)'
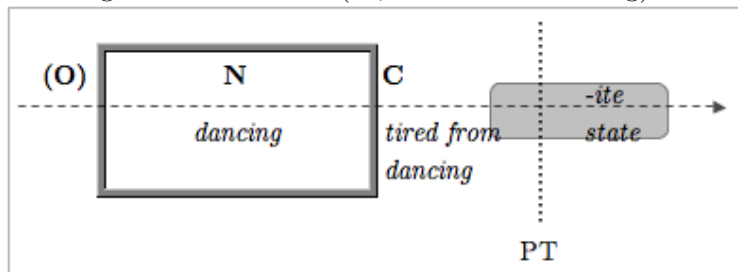
(373) a. *ndibal<u>ite</u> imbuka zobile*

    ndi-bal-<u>ite</u>   imbuka   zobile

    1SG-read-<u>ITE</u> CL10.book CL10.two

    'I {am reading} / {have read} two books' (NT2007Elic79)

b. [Context set 1: I am busy. I don't have time to help my neighbor with her chores. My neighbor has asked me to help with her chores.]
Utterance: *ndibalite imbuka zobile*
Reading: 'I **am reading** two books'
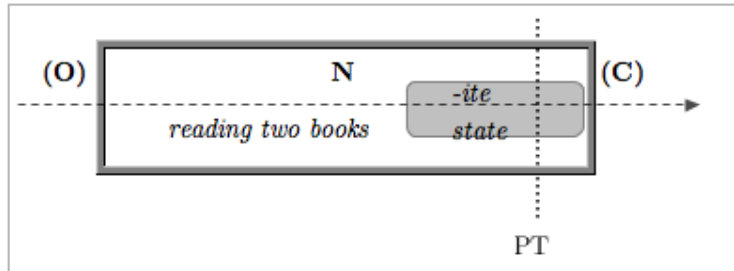
c. [Context set 2: I had a productive week, and I learned a lot. I want to illustrate my expertise.]
Utterance: *ndibalite imbuka zobile*
Reading: 'I **have read** two books'
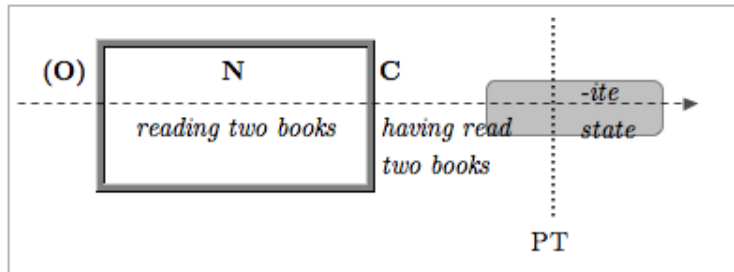
6.5.1   Note: *-ite* as a perfect?

The proposal that *-ite* is a stativizer with a relevance presupposition has similarities with analyses of the perfect, as described in 6.4.1. The perfect has been analyzed both as a stativizer (e.g. Nishiyama & Koenig 2010) and as presupposing relevance (Portner 2003). Additionally, the Proto-Bantu ancestor of *-ite* and related markers is assumed by some (though not all) Bantuists to have been a marker of anterior aspect (Nurse (2008); Nurse & Philippson (2006) but cf. Schadeberg (2003)).

While the concepts discussed in these analyses are instrumental in making *-ite*'s semantic and pragmatic functions explicit, analysis of *-ite* itself as a perfect does not shed further light on its nature. Furthermore, several facts speak against analysis of *-ite* as a perfect.

First, *-ite* co-occurs with persistive marker *-chi-* 'still'. Dahl (1985:134-138) notes that perfects are incompatible with 'still' (e.g. '#I have still built'), while compatibility with 'still' is hallmark of resultatives. Some attested examples of *-ite* with 'still' are given in (374), repeated from (336).

(374)   a. *tùchìmùlìndîlê*
            tu-chi-mu-lind<u>ile</u>
            1PL-still-3SG-wait.STAT

            'we are still waiting for him' (ZT2009Elic173)

        b. *ndichiyaak<u>ite</u> afuwi nomulonga*
            ndi-chi-yaak-<u>ite</u>   afuwi nomulonga
            1SG-pers-build-STAT near   com.CL3.river

            'I [my house] am still built close to the river' (ZT2007Elic123)

The difference in co-occurrence with 'still' is related to what is referred to by perfects and resultatives, respectively. Simply put, perfects describe a (usually) past situation with current relevance, sometimes described as a "perfect state" (e.g. Nishiyama & Koenig 2010). The reference made, however, is still to the situation itself. Resultatives, in contrast, refer to the state *resulting from* the situation, and not to the situation itself. Bybee *et al.* put it as follows:

> A resultative… expresses the rather complex meaning that a present state exists as the result of a previous action. An anterior, in contrast, expresses the sense that a past action is relevant in a much more general way to the present moment (Bybee *et al.* 1994:69).

In this way, *-ite* is very similar to resultatives, even with what I have labeled "progressive" uses. In "progressive" interpretations with situations marked with *-ite*, the situation nucleus is ongoing with respect to perspective time, which is located within the *-ite* state. However, the situation itself is not *-ite*'s main concern, but rather the state of the subject associated with, or resulting from, the situation, whether the situation is ongoing or in the past with respect to perspective time. Thus, "progressive", "stative", and "resultative" readings of *-ite* all describe the subject's state, resulting from the situation referenced by the lexical verb, and relevant to answering a question under discussion in the current discourse. The temporal restriction of the situation itself to the past, as in Bybee *et al.*'s (1994) definition above, has been lost in the case of *-ite*.

With reference to the progressive/resultative markers discussed in 6.4.2 above, Sasse (2002:242) posits that the progressive reading is also generally attributable to "reinterpretation of an erstwhile resultative form"; a "general" statives may also grammaticalize to become forms with both progressive and resultative meanings.

6.6   *-ite*, stativity, and relevance in narrative

The analysis of *-ite* as a stativizer with a relevance presupposition is given further support by *-ite*'s use in narrative contexts. This section describes *-ite*'s distribution in narratives (§6.6.1), then describes how its stative (§6.6.2) and relevance (§6.6.3) components are exploited in narrative structuring.

6.6.1 -*ite*'s narrative distribution

The -*ite* marker appears both inside and out of quoted speech in narratives. Outside of quotes, -*ite*-marked verbs make up a very small percentage of verbs in narrative. For example, in a list of 547 tokens from nine narratives, all outside of quoted speech, 209 were inflected. Fifteen of those were marked with -*ite*, comprising about 7% of inflected verbs (or 3% of all non-quote verbs).

Outside of quoted speech, -*ite* appears most frequently in orientation scenes and with scene-changing motion verbs in narratives. In orientation scenes, -*ite* gives background information crucial for setting up and understanding the story; in changes-of-scene, -*ite* paints a verbal picture of characters' motion that aids in the transition from one scene to the next, a state that is also relevant to the progression of the story's action.

Verbs like -*sesa* 'marry' and -*penga* 'suffer' are common with -*ite* in orientation sections. These and similar verbs give information about characters' situations that set up the ensuing action.

(375) *Âwò, kàlìmúꜜkwáámè **kàsésèté** àbánàkázì bòbílè*

      awo   ka-li   mukwaame **ka-ses-ete**
      CL16(LOC).DEM PREHOD.IPFV-be CL1.man   PREHOD.IPFV.CL1-marry-<u>ITE</u>.RC
      abanakazi   bobile
      CL2.woman CL2.two

      'there once was a man **who was married** to two women'
      (ZT2009NarrB5.CN, *baMachelele nabaChibombwe*)

(376) *Âwò, kàlìmùntù **kàpéngètè**. Èzíꜜlyò tàbòná...*

      awo   ka-li   muntu   **ka-peng-ete**.
      CL16(LOC).DEM prehod.IPFV-be CL1.person PREHOD.IPFV.CL1-suffer-<u>STAT</u>.
      ezilyo   ta-bon-a...
      CL8.food neg.CL1-see-FV...

      'There once was a man **who was suffering**. He couldn't find *food*...'[25] (ZT2009-NarrB4.CN, *Sulwe nabaNdahu*)

The most commonly used motion verbs with -*ite* in my narrative corpus are -*iza* 'come', almost universally appearing in its distal -*ka* form, -*keza*; and -*ya* 'go', also usually appearing with distal -*ka*- (see below). 'Go' and 'come' also seem to be the most commonly -*ite*-marked verb types overall in narrative, and appear at scene changes with character motion from one location to another.

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[25]'Food' is topicalized in this construction.

(377) *Nàbó bàmwí ꜜmwísùlè **bàlìkèzítè***

nabo   ba-mwi   mwisule   **ba-li-ka-iz-ite**
COM.CL2 CL2-other CL18(LOC).behind CL2-PRES.STAT-come-DIST-<u>STAT</u>

'Meanwhile, those others behind, they're coming' (ZT2009NarrB6.SW.25, *Tenga-Tenga*)

(378) *Kùmúshàpà kùmúshàpà kùmúshàpà kùmúshàpà kùmúshàpà kùmúshàpà kùmwíjàyà kùmúsìyà. Bàlyá **bàkàìlé** mùmútèmwà.*

ku-mu-shap-a   (x6) ku-mu-ijay-a   ku-mu-siy-a.   balya
INF-CL1-beat-FV (x6) INF-CL1-kill-FV INF-CL1-leave-FV CL2.DEM(FAR)
ba-ka-ile   mu-mutemwa
CL2-DIST-go.<u>STAT</u> CL18(LOC)-CL3.forest

'Then they beat and beat and beat him and killed him and left him. **There they go along** in the forest.' (ZT2009NarrA4.CN, *Chiza*)

When *-ya* appears with *-ite* in narratives, it is almost always in the collocation *DEM SM-ka-ile*, as seen in (378) above.

Other verbs used frequently with *-ite* in narrative are also common in everyday conversational contexts: stative *-bona* 'see'; inchoative positional *-ikala* 'sit down, stay'; inchoative *-kwaata* 'grasp, take hold of' (the - form, *-kweesi*, indicates possession); and inchoative stative *-iziba* 'know' (with *-ite*: *-izi*) are particularly common.

With its stativizing function, *-ite* is not expected in narrative depictions of sequential events. When it occurs, it may be assumed to have a special purpose. In some cases, the use of *-ite* appears to be especially related to the stativity of the situation; in other occurrences, it depicts relevance to the story at the time.

6.6.2   *-ite* and stativity in narrative

Some choices of *-ite* in narrative highlight the stative nature of situations in opposition to their active counterparts. Example (379) shows this stativity difference with *-bona* 'to see'. In examples like (379a), which are very common in the corpus, the *-ite*-suffixed seeing event is taking place over an extended period while some other, previously described, action – usually illicit (in this case, dancing on a borrowed pair of legs) – is going on. In (379c) and (379b), on the other hand, the first sight (a punctual event) is highlighted, and *-bona* is used with an active (narrative) form. (379c) shows a habitual punctual event, still different from the *state* of seeing that is depicted in (379a).

(379)   a. *Nàkó àkàchèmbèlè **kàlìmúbwènè***

    nako   akachembele **ka-li-mu-bwene**
    COM.CL12.DEM CL12.old.hag CL12-PRES.STAT-3SG-see.<u>STAT</u>

    'And that old hag **saw him [was watching him]**' (ZT2009NarrB3.CN *Sinjoli naChacha*)

b. *Nabo basikuchela shombo **nokubona** kuti mitwi bulyo ina okuyimba*

nabo   ba-si-ku-chel-a   shombo   ...**noku-bon-a**   kuti
COM.CL2a.DEM CL2A-poss-INF-pick-FV manioc.leaves ...com.INF-see-FV COMP
mitwi   bulyo ina   oku-yimb-a
CL4.head.cop only   CL4.have INF-sing-FV

'And those ones picking manioc leaves...**saw** that it was only *heads* [without bodies] that were singing' (ZT2009, *Fumako* revision)

c. *Ésì **ábònà** [xxx] bwáchà pèlè àîndé èchìhwánà èchínènè...*

esi   **a-bon-a**   [xxx] bwa-cha   pele a-ind-e
COND 3SG-see-FV [xxx] CL14.CMPL-dawn PART 3SG-take-FV.SBVJ
echihwana   echinene...
CL7.calabash CL7.big

'[Every day] as soon as **she saw** [that] it had dawned, she ordered him to take a big calabash...' (ZT2009NarrA15.VB.9, *Kañandu*)

A similar contrast can be illustrated with *-kwaata* 'grasp, catch, take hold of'. (380b) with the stative form of *-kwaata* (*-kweesi*) describes the state of the subject, i.e. not having a child. (380a), in contrast, describes an action (catching) with *-kwaata*.[26]

(380)   a. *Yùmwí ꜜyôyò **tàkáàkwèèsí** òmwáànà*

yumwi   yoyo   **ta-ka-a-kwe<u>esi</u>**   omwaana
CL1.other CL1.DEM NEG-PREHOD.IPFV-CL1-catch.<u>STAT</u> CL1.child

'That other one didn't have a child.' (ZT2009NarrC1.CN, *Mutyaabankuni*)

b. *Ùtândè ùmánè **tóchìkwààtà***

u-tand-e   u-man-e   **to-chi-kwaat-a**
2SG-chase-FV.SBVJ 2SG-finish-FV.SBVJ NEG.2SG-CL7-catch-FV

'You can chase and chase it, but **you won't catch it**.' (ZT2009Narr21 *Riddles*)[27]

Stativity may also be seen in the use of *-ite* with motion verbs at the end of scenes or as characters move from one location to another (see (377) and (378) above): by depicting the motion as a steady state of the character, ongoing at perspective time, rather than just as another action in the sequence of events. The result is a depictive, rather than a purely narrative sense. Forms such as that in (378) were translated into Lozi forms that in turn translated as 'there they go...'

6.6.3 *-ite* and relevance in narrative

-ite's other component, the presupposition of relevance, i.e. of answering an immediate question under discussion, is also evident in narrative. In narrative, which is basically monologic,

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[26]The negation of *-kwaata* and its *-ite* forms is not relevant in these examples; it does not effect the contrast. *-kweesi* refers to a state that does not obtain, while *-kwaata* is a non-occurring action.

[27]The answer is 'your shadow'.

speakers use -*ite* to structure information, manipulating the question under discussion. Relevance is particularly clear in orientation scenes. In using -*ite* with verbs in introducing characters, narrators communicate that the particular attributes or situations described are relevant for the story to come. Orientation examples are shown in (375) and (376) above.

Other -*ite* uses also show relevance effects. For example (381), repeated from (379a), introduces a character who will serve as a foil. The old hag's spying will prove the undoing of the main character in his deceit, and is thus introduced as important for the ensuing action.

(381)   *Nàkó àkàchèmbèlè* **kàlìmúbw<u>ènè</u>**

     nako   akachembele   **ka-li-mu-bw<u>ene</u>**
     COM.CL12.DEM CL12.old.hag CL12-PRES.STAT-3SG-see.<u>STAT</u>

     'And that old hag **saw him [was watching him]**' (ZT2009NarrB3.CN *Sinjoli naChacha*)

-*ite* also appears frequently in quoted speech in narrative, much as it appears in everyday discourse. In (382), for example, -*ite* seems to be used because the speaker is making an observation that is very relevant to the current context, explaining the problems of the speaker's child. In general, -*lowa* 'bewitch, do witchcraft against', occurs more commonly in a non-*ite* form. The statement with -*ite* is a claim about the character and actions of her interlocutor, and the act of witchcraft becomes an attribution, rather than just an activity. It is relevant to answering several discourse questions: first, 'what is responsible for my children's problems?' and second, 'what accounts for my judgment of your character (and ensuing actions)?'

(382)   *"Kántì íwè ndìwé* **ùló<u>wètè</u>** *yôyù mwáànángù íwè!"*

     "kanti iwe   ndi-iwe   **u-low-<u>ete</u>**   yoyu   mwaana-angu
     kanti 2SG.PRON cop-2SG.PRON 2SG-witch(v)-<u>STAT</u> CL1.DEM child-1poss
     iwe!"
     2SG.PRON

     '"What?! You, it was you, you were the one **who was witching** my child, you!"' (ZT2009NarrB3.CN *Sinjoli naChacha*)

In contrast, in (383), -*ikuta* 'become full' is not used in its stativized -*ite* version (-*ikusi*), although such a use might be acceptable in that temporal context. There are at least two reasons why -*ite* may not have been chosen, one temporal and one relevance based. Temporally, this sentence seems to emphasize the change of state rather than the current state: the speakers have not yet become full (the point of nuclear completion in the predicate -*ikuta* 'become full'). The relevance-based motivation for this temporal representation may be that the *food* (and its inadequacy), and not just the speakers' state, is what is under discussion, and question about whether the friend is hungry does not directly represent the

immediate question under discussion, which seems instead to be something like 'was the food sufficient?'.[28]

(383) *"...yêyí ìnsìmà, íwè **wékùtà?**" ... "Íwè **tàndìnékùtà!**"*

    "...yeyi   insima,   iwe   wa-ikut-a?"   ... "iwe
    ... CL9.DEM CL9.nshima 2SG.PRON 2SG.CMPL-become.full-FV ... 2SG.PRON
    ta-ndi-na-ikut-a!"
    NEG-1SG-PST-become.full-FV

    ' "...Hey, that food...**are you full** [=have you become full]?" ... "Man, **I'm not full** [I didn't get full]!"' (ZT2009NarrA62.CN, *kaShakame naMulikani*)[29]

Thus, *-ite*'s functions as a stativizer presupposing relevance are evident in its narrative uses, where it allows speakers to depict situations as states (making them more depictive than narrative) that are relevant for the story's action.

6.7   *-ite* in Bantu: a historical and comparative view

6.7.1   *-ite* across Bantu

Suffixes similar to *-ite* – most commonly *-ile*, but with a wide variety of phonological variation (for an extensive overview, see Bastin 1983) – are found across Bantu. To an even higher degree than many other markers of tense and aspect, these markers seem to have complicated temporal interpretations in many languages. For one thing, temporal interpretations appear to be highly dependent on verbal situation type in numerous languages: *-ile* often has an anterior meaning with non-inchoative verbs and a present stative reading with inchoative that express "a change of condition or location of the experiencer or patient", including a "change or transition from one state to another" (Botne & Kershner 2000:165).[30] Morphemes with these semantics are typically characterized as *resultative*, rather than anterior. However,

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[28]The distinction here is subtle. It could be argued that the answer to the question 'are you full?' does provide an answer to the immediate question under discussion 'was the food sufficient?', but it seems here that the storyteller wants to highlight the inadequacy of the food rather than the character's state. In mentioning the food and then asking about the friend's state of hunger in the same utterance, perhaps the speaker is avoiding raising the question twice, first overtly and then presuppositionally.

Another important note is that the (hodiernal) completive *-a-* marker can also give anterior-like readings. These are different from the resultant state meanings with *-ite*. Also they are not required: a simple past reading, with no current relevance, is possible.

[29]In the free translation, I have used 'man' to communicate the colloquial nature of this conversation, which uses the 2SG pronoun *íwè*.

[30]Nurse (2008:97) briefly describes the distinction in interpretations for the anterior as between "stative and inchoative" verbs on the one hand (present readings with anterior), and "dynamic" on the other ("true" anterior readings). However, because Bantu, in contrast to English, appears to encode *entry* into most states as an inherent part of the situation, this distinction may be less meaningful than the inchoative/non-inchoative situation-type dichotomy as employed in Botne & Kershner (2000), or the durative/change-of-state distinction in Seidel (2008).

Nurse "combines...anterior and resultative as anterior because across Bantu the relevant morphemes carry both meanings" Nurse (2008:308).

In Zulu (S.42), the situation is even more complex: with non-inchoative verbs, *-ile* gives a perfective reading, while with inchoative (change-of-state) verbs, *-ile*, depending on context, contributes either "completive" or perfective aspect. Botne & Kershner (2000) argue that the two *-ile*'s actually derive from different bi-morphemic *-i(l)-e* constructions. One is "perfective", depicting the verbal situation as an undifferentiated whole; the other is "completive", which Botne & Kershner define with respect to the internal composition of the verb. Completive aspect signals that the situation *nucleus* is completed, as I have argued is the case for completive *-a-*. The difference in readings between near-past perfective and completive – which gives an immediate past reading – is thus irrelevant for non-change-of-state verbs, where the entire situation is contained in the nucleus; it can, however, explain the two possible readings with *-i(l)-e* for change-of-state verbs, where the nucleus marks the point at which the change of condition, location, or state occurs, and the coda describes the resultant state.[31]

Further evidence for morphemes with two different meanings in Zulu is that the completive *-ile* can imbricate into some change-of-state roots. (384) shows the perfective and completive morphemes with an imbricating root. (385) shows a change-of-state root that does not imbricate, but still has both the completive and the perfective reading. (386) shows the only possible reading possible for a durative (non-change-of-state) root.

(384)   Imbricating change-of-state root

    a. Perfective without imbrication
        ba-khatal-il.e
        'they got tired' (Botne & Kershner 2000:ex 18a)

    b. Completive (stative) with imbrication
        ba-khate:-l.e
        'they are tired' (Botne & Kershner 2000:ex 19)

(385)   Non-imbricating change-of-state root (identical forms, different meanings)

    a. Perfective without imbrication
        ba-lamb-il.e
        'they got hungry' (Botne & Kershner 2000:ex 18a)

    b. Completive (stative) without imbrication
        ba-lamb-il.e
        'they are hungry' (Botne & Kershner 2000:ex 19)

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[31]There is a subtle difference between Botne & Kershner's completive aspect and the resultative: resultative aspect focuses on the state resulting from an action or a change of state, while completive merely denotes that the situation nucleus is completed, typically giving activity verbs "an 'immediate past' interpretation" and change-of-state verbs "either an immediate past or a resultative state interpretation"(Botne & Kershner 2008:191). This definition of "completive" seems to differ from the definition given in Bybee *et al.* (1994:318), as an action done "thoroughly and to completion", which does not make reference to a situation's nucleus or to a result state.

(386) Durative root (only perfective reading is available)
     ba-theng-il.e
     'they bought' (Botne & Kershner 2000:ex 18b)

According to Botne & Kershner, the discrepancy in form and interpretation can be best explained with two bimorphemic suffixes with different sources, one completive and one perfective.

Similarly to his approach to Zulu in Botne & Kershner (2000), Robert Botne (p.c.) proposes that -*ite* may have had an anterior/perfect/completive origin, while -*ile* was originally a perfect. The question of one versus two distinct -*ile*/-*ite* suffixes, and whether a two-suffix analysis can account for Totela's varied temporal interpretations of -*ite*, is discussed in section 6.7.2. In any case, it is clear that the suffixes are semantically and pragmatically complicated throughout Bantu; Totela and related languages are no exception.

6.7.2 Origin

The historical origin of -*ite* – important because of its implications for historical semantic and pragmatic development – is somewhat contested. Recall that -*ite* may be related to a common -*ile* suffix. Reflexes of an -*ile* suffix occur widely across Bantu, especially in the middle zone, probably appearing in over 66% of languages in Zones D through S (Nurse 2008:264). The -*ile* suffix has been given competing reconstructions for Proto-Bantu as *-*ide* (Guthrie 1967-1971; Schadeberg 2003), and as bimorphemic *-*id-e* (Voeltz 1980), the latter grammaticalized from a verb *-*gid* 'finish' and a perfective suffix. Although the pathway from 'finish' to anterior aspect is well-attested (Bybee *et al.* 1994), the latter reconstruction has been deemed unlikely for several reasons. First, the source verb is not widespread in Bantu, and second, the V-Aux (which would be, in this case, main verb + 'finish') word order has not been proved for Proto-Bantu (Nurse 2008:266). However, a bimorphemic analysis, phonologically evidenced by imbrication and the possibility of inserting the passive marker (see (324) above), may also find "morpho-syntactic and semantic" support, as discussed in Botne & Kershner (2000). Botne (2010:61) also proposes an origin in Pre-Bantu *-*Cid*-, which he posits developed into Proto-Bantu *-*ide*.

Because reflexes of *-*ide* most commonly mark anterior (or related) aspect, or the past perfective, Nurse & Philippson (2006) reconstruct its meaning in Proto-Bantu as anterior, and possibly also "general past". Others, however, including Bastin (1983), Botne (p.c.), and Schadeberg (2003) disagree with this reconstruction, proposing instead that *-*ide* always marked perfective aspect. Botne (2010:58-63) argues strongly that Proto-Bantu *-*ide* was a "resultative perfective" marker, which functioned with change-of-state verbs and then developed other functions through expansion and the distinguishing between speaker-centered and situation-centered "orientations", the former of which gives resultative readings, the latter, general past readings.

Nurse (2008) and Nurse & Philippson (2006) base their reconstruction on the observation in Bybee *et al.* (1994) that anteriors commonly develop into perfectives, while the reverse is unusual. Nurse (2008:237) explains the shift from anterior to past (perfective/general past)

and present tenses as follows:[32]

> An anterior involves two situations, a previous situation and a later or present state or situation, chronologically ordered, in which the present situation is the result of the previous situation, or in which the previous situation is somehow still relevant to the current one. Remove the present meaning component and the result is a past tense. This can be seen in many varieties of modern French (*nous avons mangé*) and German (*wir haben gegessen*), where what used to be anteriors a few centuries ago are today straight past tenses, at least in speech.

> On the other hand, remove the past requirement and what remains is a present. In many Bantu languages, the anterior used with dynamic verbs represents a past situation with some present relevance but with inchoative verbs such as 'know (come to know)' or 'sleep (fall asleep)', the anterior form represents the result of a past action, that is, a present ('we know, she is asleep'). If such anteriors were generalized from inchoative to all verbs, that would give the present meaning we see today in some languages... (Nurse 2008:237-238)

Interestingly, in the Zone E languages with an *-ite/-ile* contrast, the direction of the contrast is not consistent. In the E.50 languages, which (Nurse 2008) takes to represent the older situation, *-irɛ* is a perfective marker and *-eetɛ* marks anterior aspect. (387) illustrates this contrast in Gikuyu (E.51) without a tense marker; (388) shows it with P$_1$ marker *-raa-*, creating a more distant past perfective with *-irɛ* and a past anterior (pluperfect) with *-eetɛ* (examples from Nurse (2008:Appendix 1, p. 131)):

(387)   Without tense
   a. to-∅-rúg-írɛ
      'we cooked' (today)

   b. to-∅-rúg-éetɛ
      'we have already cooked'

(388)   With P$_1$ tense marker
   a. to-ráa-rúg-irɛ
      'we cooked'

   b. to-ráa-rúg-eetɛ
      'we had cooked'

In several E.40 languages, however, the contrast may be reversed. In Gusii (E.42), the *-ite*-like suffix marks *perfective* aspect (*-eetɛ* is anterior in E50), while *-ire* appears to mark anterior:

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[32]This quote gives a possible explanation of similar semantic shifts for the *-a-* morpheme, and is ultimately rejected in favor of other explanations; however, Nurse applies similar reasoning while explaining *-ile*'s temporal semantics in other writings; see, for example, the discussion of *-ite* and *-ile* in the Zone E languages, found later in this section.

(389)   a. mbá-a-c-<u>éte</u>
        'they came' (beyond 48 hours ago; P$_4$)

      b. n-a-rúg-<u>ire</u>
        'I have cooked' (P$_2$) (Nurse 2008:Appendix 1, p. 127)

In another E.40 language (Sonjo E.46), however , the *-ite*-like suffix (*-ate* in the affirmative, *-ete* when negative) marks progressive aspect.[33] The E40-50 situation as described by Nurse (2008) is summarized in table 6.2.

Language	**-*ile* reflex**	**Function**	**-*ite* reflex**	**Function**
Gikuyu (E.51)	*-irɛ*	perfective	*-eetɛ*	anterior
Gusii (E.42)	*-ire*	anterior	*-ete*	perfective
Sonjo (E.46)	*not*	*given*	*-ate/-ete*	progressive

Table 6.2: *-ite* and *-ile* reflexes in E40-E50

Nurse (2008), following ideas from Patrick Bennett, interprets the E.40 situation as evidence that the E50 *-irɛ*–perfective / *-eetɛ*–anterior contrast represents an earlier situation. Anteriors commonly develop into perfectives (Bybee *et al.* 1994); Nurse posits that as the loss of the "ongoing state" component of anterior meaning would result in the Gusii situation of perfective *-ate* (*-ire* then presumably fills in the empty anterior slot), the loss of the "completed action" component explains the Sonjo progressive reading (Nurse 2008:164).

In any case, Nurse's view requires that *-ite* first emerged as an allomorph of *-ile*, and that the semantic contrast arose only later in a few languages. Botne (p.c.) takes the opposite view. For him, **-ide* and **-ite* were originally separate morphemes, but had shapes that were close enough that they merged in a number of languages. As noted in section 6.7.1, Botne posits an original perfect or completive meaning for *-ite*, and a perfective meaning for *-ile*. Bastin (1983:61-77) also makes a convincing argument, based on extensive cross-linguistic investigations, that the two morphemes *-Vt(V)* and **-ide* had separate origins, although they have merged in many languages. She summarizes as follows:

> La comparaison formelle et sémantique entre *-ɪte* et *-ide* montre que *-ɪte* ne peut pas, dans tous le cas, être considéré comme une variante à consonne sourde de *-ide*. Le passage direct de *-ile* à *-ite* ne peut pas être exclu partout, mais certains éléments suggèrent que la plupart des finales actuelles se rattachent historiquement à un ou plusieurs morphèmes distincts de *-ide*. Il est en effet difficile d'expliquer autrement les différences fréquentes entre les degrés d'aperture des voyelles initiales, qui se manifestent soit directement, soit indirectement dans le comportement des consonnes précédentes. De même, des notions distinctes sont attachées à chacune des finales dans plusieurs langues. La neutralisation... a

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[33]In fact, the data given suggest that these markers have a situative (participial) function in Sonjo. The examples in Nurse (2008:165) are *n-tu-ø-gol-<u>ate</u>* 'we are buying' and *tw-a-mu-bandre a-ø-sim-<u>ate</u>* 'we have seen him digging'.

pu aboutir, dans certaines langues, à l'élimination de l'un des morphèmes, dans d'autres, à l'utilisation des deux en tant que variantes (Bastin 1983:77).[34]

One piece of evidence in favor of Bastin's view in Totela is that the *-ite* ending itself does not appear to condition consonant mutation or imbricate; it appears to be the *-ile*-like suffixes that do so (see appendix B). This could indicate two origins with differences in vowel aperture. *-ɪ-* extensions and suffixes in Totela do not condition consonant mutation, but *-i-* extensions and suffixes do (see 2.2.6). The tone patterns for the two suffixes are also different (see C), and a *d>t* shift is not seen in Totela (§2.2.6.2). Whatever their origin, the two suffixes seem to be identical in Totela in terms of semantics, and languages closely related to Totela use *-ide*, *-ile*, and *-ite* with similar functions (see section 6.7.3).

Whether *-ite* and *-ile* have a single Proto-Bantu origin may be important in understanding the varied and complex semantic and pragmatic effects of these suffixes across Bantu, including in Totela. If *-ile* was originally a single marker of perfective aspect, the development of present progressive / stative meanings in some languages is highly uncommon cross-linguistically (Bybee *et al.* 1994). If it marked anterior aspect, the resultative/completive readings, typically found at earlier stages of grammaticalization than anteriors (Bybee *et al.* 1994:105), are somewhat unexpected. If, on the other hand, there were two separate morphemes, marking completive/anterior and perfective aspect, respectively, as posited by Botne (p.c.), and these later merged, the disparate temporal interpretations may be easier to explain. Still *-ite*'s relative rarity in Bantu is something of a puzzle.

Another possibility, not discussed explicitly by Botne or Nurse, is that the *-ide* suffix originally marked completive or resultative aspect, and still functions as such in some languages, while in others the meaning further developed into anterior or perfective aspect. Development of *-ite* as (or into) an allomorph could, in some languages such as E40-50, have allowed for further grammaticalization with division of semantic labor between *-ite* and *-ile*. As discussed above (on page 289), it seems likely that any present or progressive meanings of *-ide* descendants would retain some special pragmatic component, and that the temporal semantics would not be entirely straightforward. A cross-linguistic study of the pragmatics of present / progressive *-ile* usage would be enlightening.

6.7.2.1   Implications for Totela

As noted above, a full cross-Bantu investigation of *-ite* vs. *-ile* might shed further light on a common or separate origin for the two suffixes. Whatever their origin(s), they appear to have merged in Totela. Although some consultants in elicitation sessions occasionally gave

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[34] "The formal and semantic comparison between *-ɪte* and *-ide* shows that *-ɪte* cannot in every case be considered a variant of *-ide* with a voiceless consonant. The direct transition from *-ile* to *-ite* cannot be ruled out everywhere, but some evidence suggests that most synchronic finals relate historically to one or more morphemes distinct from *-ide*. It is indeed difficult to otherwise explain the common differences in degrees of aperture of initial vowels, which manifest themselves either directly, or indirectly in the behavior of preceding consonants. Similarly, different concepts are associated with each of the finals in several languages. Neutralization . . . may lead, in some languages, to the elimination of one of the morphemes; in others, to the use of both as variants".

-ile variants for verbs that normally take *-ite*, these variants are virtually unattested in texts and may even be attributable to interference from Lozi. In any case, no consistent differences in interpretation were found.

A single vs. dual origin may bear on development of *-ite*'s meanings in Totela today. If, as Botne (p.c.) proposes, *-ite* originally marked resultative or anterior aspect, focusing on the coda phase of a situation, after the state- or situation-changing nucleus, the (resultative) stative semantics with many inchoative verbs fall out naturally. Botne further suggests that progressive readings with activity verbs might be attributed to *-ite*'s focus on the post-nuclear coda phase, combined with a perfective viewpoint contributed by the *-ile* suffix, now largely subsumed by *-ite* in Totela but still making a semantic contribution. That is, because the perfective portrays the situation as an undifferentiated whole – much like activity situations themselves, in their default interpretation – a "post-nucleus" view of an activity situation results in a progressive reading, rather than an inchoative ('started to X') or anterior ('have X-ed')/resultative reading.

(O)   N   C
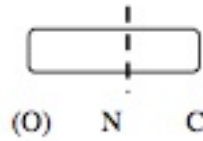
Table 6.3: Post-nucleus view of a (perfective) activity situation: progressive reading. Picture by R. Botne (p.c.)

This view is attractive, but a pragmatic component is still required to explain *-ite*'s distribution and its context-based interpretations, which may vary even for the same predicate (see (372) above, for example).

-ite's usage patterns with particular predicates, as well as from speaker to speaker, suggest that *-ite* – whatever its ancestor – started as a resultative in Totela. All Totela speakers commonly use it in resultative contexts, and with other statives. From there, a possible grammaticalization path is suggested by usage patterns of Zambian vs. Namibian speakers, and older vs. younger speakers within each variety. In general, the Zambian speakers I consult with seem to be more conservative with *-ite* use than are Namibian speakers, and older speakers are more conservative than younger speakers. If this pattern holds for the larger Totela-speaking population, *-ite* may be an example of grammaticalization in progress.

The expansion of *-ite* to progressive-like use with a wide range of verbs may first have occurred with motion verbs, specifically verbs of path. Motion verbs are very commonly used with *-ite*, are widely accepted as grammatical, and – crucially – have much in common with statives of location, which are mostly expressed as change-of-state verbs in Totela.[35]

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[35]Nurse (2008) notes that the anterior may in some circumstances be used with future reference in Bantu languages:

> "A past perfective represents a complete past action: a present anterior represents a past action as having consequences that last into the present [or the future]. The use of an anterior for

Development appears to be at a further stage in Namibia, where *-ite* is commonly used with progressive semantics for both motion and non-motion verbs. Older Zambian speakers, while occasionally using *-ite* with progressive semantics for non-motion verbs, reserve progressive *-ite* largely for verbs of motion, particularly those denoting path. In Totela, most positions (e.g. sitting, standing, lying down) are expressed as resultative forms of verbs expressing the path of entry into those positions ('sit down', 'stand up', 'lie down', etc.). The broader progressive meaning is possibly an extension of the progressive use of *-ite* with verbs of motion. A possible pathway of pragmatic extension is illustrated in table 6.4, for more and less conservative speakers of each variety. Check marks indicate acceptance and use of *-ite* with the forms in question.

This table shows robust use of *-ite* as a resultative, indicating a state directly resulting from a change-of-state, and with stative verbs. "Progressive" uses (progressive with respect to the situation referenced, stative with respect to the subject's consequential condition) seem to have arisen from these uses, possibly because *-ite*'s relevance presupposition grew to be more important than any temporal relations or stativity of the predicate itself.

Bybee *et al.* (1994) describe two major grammaticalization paths related to anterior (and resultative) aspects, shown in figures 6.1 and 6.2. Both show the unidirectional grammaticalization from ANTERIOR to PERFECTIVE/SIMPLE PAST. If the (disputed) reconstruction in Voeltz (1980) of *-*ide* as a grammaticalization of 'finish' is correct, the expected pathway is as in figure 6.1.[36]
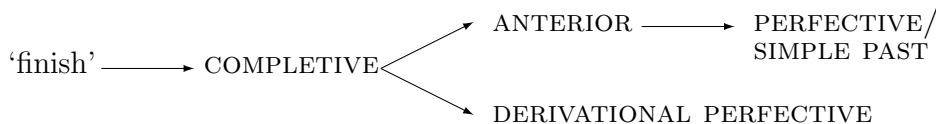
Figure 6.1: Paths from 'finish' (from Bybee *et al.* 1994:105)

Such a pathway seems unlikely, since *-ite* does not serve any of the functions listed.

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future reference first drew my attention in a Sonjo [E46] village, when a man just about to make a purchase apparently announced that the purchase had just been made... 'We are about to buy, the thing is as good as bought'. That is, he used an anterior... to represent an event in the immediate future. This rests on the speaker's certainty that because the decision has been taken (in the past), and that the future action is as good as taken, because the consequences of the past decision are felt through the present and into the future. Half an hour later, when I took his form out of context and asked him for a translation, he interpreted it as an anterior and only reluctantly agreed it might refer to a future event. Speakers of other languages acknowledged the same possibility in their languages in later discussions. (Nurse 2008:163)

Personally, I have commonly heard the anterior used for a future with 'come' in e.g. Kwanyama (R21, Namibia). That is, speakers say 'I have come' to express that they are about to go and will be there soon (relatively speaking). It seems possible that this anterior/resultative use might have been the initial use of 'come-*ite*' in Totela, and that it eventually developed into a real (stative) progressive meaning. This is, of course, quite speculative.

[36]COMPLETIVE is defined in Bybee *et al.* (1994:318) as an action done "thoroughly and to completion".

	ZT Speakers: +Conservative	ZT Speakers: -Conservative	NT Speakers: +Conservative	NT Speakers: -Conservative
Resultative, especially with COS verbs e.g. *become happy, hide, become fat*	✓	✓	✓	✓
With Statives e.g. *hear, suffer*	✓	✓	✓	✓
Progressive with motion/ path verbs, e.g. *walk, come*	✓ generally accepted, some verbs more common	✓ generally accepted, some verbs more common	✓ certain verbs sometimes preferred	✓
Progressive with other/ verbs, e.g. *dance, carve*	rare, but not unattested	accepted but less commonly used	used; often somewhat marked	✓

Table 6.4: Pragmatic extension of -*ite*: a possible path

The resultative pathway in figure 6.2 shows functions more similar to those of -*ite*, such as "inference from results", which may relate to ideas of relevant states: the states -*ite* selects concern not the verbal situation itself, but rather the state of the subject as a consequence of that situation. However, there is little evidence that -*ite* descended from 'be' or 'have', although its co-occurrence with present stative marker -*li*-, related to -*li* 'be', may be noted. Also, -*ite* does not function as an evidential, and so would seem to have taken a different path from the one in figure 6.2.
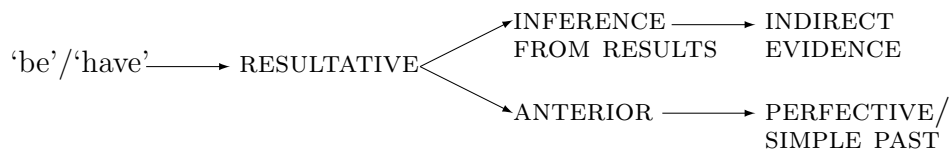
Figure 6.2: Paths to future from 'be' or 'have' (from Bybee *et al.* 1994:105)

In general, it is clear that -*ite*'s pathway of development is not typical for that of anterior markers, which have been shown to develop into perfectives and simple pasts, suggesting that -*ite* descended not from an anterior, but from a resultative marker, with the relevance component growing in prominence until the temporal restrictions of the resultative were

relaxed and *-ite* could function as it does today.

Botne (2010:58-63) shows for several northeastern Bantu languages (Luwanga JE.32, Lusaamia JE.34, Runyoro JE.11, and Rutooro JE.12), that the development in these languages of the *-ile* reflex from Proto-Bantu *-ide*, proposed to have been a resultative marker that functioned with change-of-state verbs, also does not follow the pathways proposed in Bybee *et al.* (1994). While the markers provide support for development from a resultative (or "resultative perfective") to a perfective or a simple past, Botne's pathway does not require an intermediate anterior stage. Rather, he argues, the resultative has a "speaker-centered" orientation, meaning, basically, that the coda phase resulting from the state change overlaps with the speaker's deictic now, or utterance time. Speaker-centered orientations give present stative (resultative) readings, with a split into "resultative perfective" and "completive perfective" coming when "situation-centered" readings, where the coda state precedes utterance time, are introduced. Either of these orientations may develop into simple pasts, while the speaker-centered orientations may also retain resultative readings. The details of Botne's proposal are too involved to treat in adequate detail here, but the basic argument supports analysis of *-ite*'s origins from a resultative marker, and the observation that the temporal pathways in Bybee *et al.* (1994) are not fully sufficient to account for *-ite*'s development. Furthermore, Botne's (2010:61) proposal that *-ide* in Proto-Bantu functioned primarily (or entirely) with change-of-state verbs is consonant with the usage and acceptance of *-ite* in Totela discussed above.

6.7.3 *-ite* in related languages

This section discusses *-ite*-like suffixes in some languages that are geographically and genetically close to Totela, showing that the forms and semantics vary somewhat, but that all seem to have a significant pragmatic component: the temporal interpretations, as in Totela, are far from straightforward.

The suffixes corresponding to *-ite* in Totela's closest neighbors and relations exhibit some similarities to the Totela form in their distributions and interpretations; a detailed investigation could shed light on the suffix's semantic and pragmatic pathways. This section is limited to a few brief notes based on the literature and my 2007 investigations of several Caprivian languages. While no firm conclusions can be drawn without further data, the treatment of *-ite*-like suffixes in descriptive literature shows clearly that their meanings are complex and rely heavily on pragmatic interpretation principles. Some examples discussed, especially for Tonga, might also point to a relevance presupposition. The speakers I interviewed about other varieties in the Caprivi dialect continuum had responses similar to those of Totela speakers, suggesting that the suffix's use may be converging across dialects in the Caprivi, if there were, in fact, historical differences.

The following sections first describe the suffixes similar to *-ite* in two Zambian languages closely related to the Zambian Totela variety, Tonga and Ila, followed by a historical and synchronic discussion of *-ite* in Caprivi languages.

6.7.3.1 Tonga

Tonga (M64) has an *-ide* suffix that appears in what Collins (1962) refers to as "secondary verbals", the use of which, Collins emphasizes, is "*not easy*" for second-language speakers to master (Collins 1962:50). In addition to anterior (as well as pluperfect) and (stage-level) stative uses, Collins reports a seemingly modal sense for *-ide*: it is used for contradiction. "including contrast and strong corroboration, which excludes doubt or denial", and in what Collins terms "virtually" contradictory contexts, as in (390) (Collins 1962:50):

(390)   micelo ili bol<u>ede</u>
   'the fruits *are* rotten, or the fruits are *not* perfectly sound: such a sentence … would
   be used e.g. in argument, or to express disappointment or surprise' (Collins 1962:50)

  It seems that in Tonga, as in Totela, non-temporal components of *-ide*'s meaning play a prominent role. Whether this sense of "contradiction" is related to relevance might also be examined.
  Other reported uses of *-ide* in Tonga have specifically relevance-related effects, very similar to those evident in Totela (see especially (369) above):

(391) a. Joni ulitub<u>ide</u>
    'John is covered with dust' (lit. 'John is white') (he is normally black)

   b. Joni ulatuba [present]
    'John is white' (he is a white man – his normal state) (Collins 1962:51)

(392) a. incinga ilifw<u>ide</u>
    'the bicycle is broken, punctured, etc.; (opposing a request to use it)

   b. incinga yafwa [hodiernal past]
    'the bicycle broke' (relating a fact) (Collins 1962:51)

6.7.3.2 Ila

Ila (M63) also has an *-ile* suffix (with complicated morphological realizations; see Fowler 2000:861) that is used with statives ('he loves'), resultative statives ('he is seated'; 'he knows', i.e. has come to know)) as well as in the past with pluperfect or imperfective meaning:

(393) a. (wa)kabw<u>ene</u>
    's/he had seen' (imperfective) (Fowler 2000:858)

   b. (wa)kasam<u>ine</u>
    's/he was dressed' ((resultative) stative) (Fowler 2000:858)

   c. ngutwaakul<u>ele</u>
    'where we used to sleep' (imperfective)(Fowler 2000:83)

  Fowler (2000) labels *-ile* forms "past participles"; Nurse (2008:Appendix 1, p. 252), following Yukawa (1987) (though not convinced of the label's theoretical accuracy) calls them "anterior". In Nurse's examples (from Yukawa 1987) with *-ile* and the verb *-pa* 'give',

a clear anterior meaning is evident, applicable across several past and future tenses although it is not clear that this meaning extends to all situation types.[37]

(394)   a. tu-aká-ákú-p-<u>ele</u>
            'we have given' (P2)

        b. tu-a-ákú-p-<u>ele</u>
            'we have given' (P1)

        c. tu-la-aku-p-<u>elé</u>
            'we will have given' (F1)

        d. tu-la-ka-aku-p-<u>elé</u>
            'we will have given' (F2) (Nurse 2008:Appendix 1, p. 252)

However, according to Yukawa (1987, cited in Nurse (2008:Appendix 1, p.253)), present forms with -*ile* occur with statives only, as in (395):

(395)   tu-li-zhim-<u>íné</u>
        'we are standing'

Whether this is, in fact, a co-occurence restriction, or whether it is a consequence of interpretation principles (where stative-like situations have a present-reading and other situations only an anterior reading) is not discussed.

Fowler (2000) gives an example that suggests that the suffix can also be used in generic present contexts, even with the *ka* marker (occurrences of -*ile* are bolded in the examples and their free translations):

(396)   Wezu muntu cisyoolwe. Ulachita naatewa **kasi<u>te</u>** ngoona, tafwambi kuzimuka
        "This fellow is very disobedient. He behaves like this: whenever he is called **he sits there(-<u>ile</u>)**, he's in no hurry to rise' (Fowler 2000:132)

Other examples in Fowler (2000) show both stative/resultative and anterior uses of -*ile*. In (397), -*ile* is used as a resultative with a stative meaning ('have' from -*kwata* 'have, hold; seize, grasp'). In (398), -*ile* occurs with stative ('be full') and anterior ('has eaten') situations.

(397)   Nembwa, mukwesu, ambweni kacili cako celya cintu, ulaakusekaseka **waakucikw<u>ete</u>**
        'Nembwa [an interjection expressing envy], my friend, perhaps that article belongs to you; you must be very happy **if you do possess it(-<u>ile</u>)**' (Fowler 2000:526)

(398)   Musombe mweenzu **luli<u>lile</u>**. Ambweni ukalaba mutasomba **uuku<u>si</u>**. Wasampuka bulyo watamusomba. Aca 'Welya muntu mutavu cibyaabi, tasombi beenzu'
        'Always offer food to a visitor **even if he has eaten(-<u>ile</u>)**. Perhaps you don't

---

[37]Nurse also notes that because no textual examples are given by Yukawa (whose focus was tone and not semantics), "labels and meanings of forms may be unreliable" and cannot be verified. (Nurse 2008:Appendix 1, p. 253). It is not clear, for example, why the P2 form is translated as a present perfect/anterior and not as a pluperfect.

offer him food because **he is full (-<u>ile</u>)**. Your reputation will be blackened because you didn't offer him food. He'll say, "That person is very mean and doesn't give hospitality to strangers" ' (Fowler 2000:506)

Examples in Smith (1964) of verbs with *-ile* (which he labels the "perfect tense") are not transparently glossed, but seem to accord with a resultative function of the suffix. Tellingly, he notes that

> Intransitive verbs in the verbs in the perfect tense denote being in a certain state. Thus, above, *kutwi kudi chisile* means that the ear is painful. *Bantu badi bambene*, the people have arranged themselves side by side and are now in that position. *Isamo didi chieme*, the tree is across.

Such an interpretation seems possible even in the Smith (1964) example of *-ile* in a "pluperfect" context:

(399)   chi nta na ku shika **nda ku mu bw<u>ene</u>**
        'before I arrived **I saw him(-<u>ile</u>)**' (Smith 1964:155)

It seems plausible that in this example, the speaker is claiming that he was in a resultant state of *having seen* the person in question by the speaker's time of arrival. This stands in contrast to (400):

(400)   nda ku bona 'I was seeing' (Smith 1964:148)

In (400), the speaker describes a past state of *seeing* (which also could have occurred prior to the arrival time).

-ile's resultative/stativizing properties also allow it to be used adjectivally, with both individual- and state-level predicates; (401) gives a few of the many examples in Smith (1964) and Fowler (2000).

(401)   a. shishamo shand<u>ene</u>
            'different, or divided, sticks' (Smith 1964:62; cf. *shishamo shidi and<u>ene</u>* 'the sticks are different, or divided')
        b. chintu chibumbunk<u>ene</u>[38]
            'a round thing' (Smith 1964:62; cf. *chintu chidi bumbunk<u>ene</u>* 'the thing is round')
        c. mulomo ulak<u>eme</u>
            'an open mouth'(Smith 1964:62)
        d. fulung<u>ene</u>
            'dirty' (Fowler 2000:851)
        e. tub<u>ile</u>
            'white' (Fowler 2000:851)

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[38]Smith (1964) appears to use *ch* where Fowler (2000) uses *c* in his orthography.

f. lul<u>eme</u>
   'straight' (Fowler 2000:851)

Examples (401c) and (401d) are clearly stage-level statives; it is not clear whether the other examples in (401) represent enduring or temporary states, although, as noted above, an individual-level reading seems quite likely for states such as being round (401b) or being different (401a). If this is correct, and if Collins (1962:51) is accurate in his assessment of *-ide* in Tonga (in example (391) above), there may be a pragmatic difference in the suffix's use in the two languages. If this is the case, then Totela patterns more like Ila, allowing both stage-level and individual-level states. However, relevance effects are so strong in (391) that they might alone account for the temporary state associated with *-ide* (e.g. 'he is dusty' rather than 'he is white') and no pragmatic difference need be posited.

Although the examples available in the literature do not allow for a full analysis of *-ile* in Ila, they do suggest that *-ile*, like its counterparts in Tonga and Totela, has rich and complex usage possibilities that merit serious investigation.

6.7.3.3   Subiya, Linyanti (Mbalangwe), and Fwe

In his grammar of Subiya (K42), Jacottet (1896-1901) describes the *-ite* suffix purely as a perfect, with present meaning for verbs such as *-ikuta* ('become full'; with *-ite*: *-ik<u>usi</u>* 'be full') and *-zaka* ('build'; with *-ite*: *-zak<u>ite</u>* 'live [at a place]'):

> C'est que dans ces verbes le present signifie: entrer dans un certain état, commencer à fair quelque chose.

A perfect (anterior) use is still evident today in at least some Subiya varieties. In 2007, my young consultant (aged twenty-one at the time of our interview) characterized its use in anterior contexts as "deep" Subiya, as spoken by older people. In general, Subiya speakers appear to pattern their temporal interpretations of the *-ite* suffix similarly to Namibian Totela speakers and speakers of other varieties of that dialect continuum, such as Fwe (K402) and Linyanti (K401).[39]

In my brief 2007 survey of production and interpretation of *-ite* suffixes in the Caprivi languages, in which I interviewed one or two speakers each of Subiya, Linyanti (Mbalangwe), and Fwe, speakers' temporal judgments of context-free *-ite* forms was identical for eight of the ten verbs tested; 'to write' and 'to read' had varying responses (see above for discussion of *-ite* with these, and similar, verb roots.)[40] Table 6.5 shows speaker interpretations for the verbs tested. While the table displays a rough correlation with telicity, the examples in (402)-(404) show that, like Totela, other Caprivi languages have much more complex conditions for the use and interpretation of *-ite*.

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[39]Maho (2009) includes Linyanti (often called "Mbalangwe") as a variety of Subiya within his "Subiya-Totela" group.

[40]'To read' was tested in both telic ('to read two books') and atelic ('to read') contexts; both situation types received both present and anterior interpretations from different speakers, presumably dependent on the contexts they constructed for themselves.

Describes past situation	Describes present situation
buy	play
sow	laugh
build	cook
	run
	lie

Table 6.5: Interpretations of *-ite* with several predicates in Subiya, Linyanti, and Fwe

Speakers consistently produced *-ite* forms for the translations in (402). They consistently produced non-*ite* forms for the translations in (403). I note where speakers accepted alternate *-ite* versions I offered, without any additional context from me. Speakers themselves sometimes gave context for understanding these forms, as I discuss below. It is possible that, given adequate context, the other verbs in (403) could also take *-ite* forms. Volunteered forms were mixed *-ite* and non-*ite* in (404), with some speakers even rejecting the *-ite* forms, likely due to lack of context, since all forms in this example were produced with *-ite* by other speakers.

(402)   Speakers consistently produced *-ite* forms:
    a. I am tired
    b. I am angry
    c. I am hurrying
    d. I am busy
    e. I am confused
    f. It's broken
    g. It's dirty
    h. I'm fat
    i. I'm thin
    j. It's round
    k. It's cheap
    l. They're rich

(403)   Speakers consistently did NOT produce *-ite* forms:
    a. I am sick (*-ite* accepted)
    b. I am running
    c. I am eating
    d. He is dead (*-ite* accepted)
    e. She's refusing to go[41]

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[41] As seen above in (365), this example is not incompatible with *-ite* given sufficient context.

    f. He fell (and got up again)

    g. It's black[42]

    h. It's expensive

    i. I'm buying honey

    j. I am suffering (*-ite* accepted)

(404)   Some speakers produced *-ite* forms:

    a. I see a small tree

    b. I hear a bird

    c. I understand

    d. I am walking

    e. I forget

    f. I remember

    g. It's clean

    h. He fell (and is still on the ground)

Consultants' reactions to proposed *-ite* forms for the above examples in which they did not produce *-ite* varied much as they did in Totela varieties, but may all be seen as indicating some sort of relevant state. For example, a Fwe speaker said that the *-ite* form of *-zhala* 'think' would indicate "a continuous thing – I am busy thinking", while using it with *-wula buchi* 'buy honey' would indicate a past action. A Subiya speaker said that the *-ite* form of *-yanda* 'suffer' would indicate that the person described "started suffering in the 1980s".[43] The equation of *-ite* with an extreme state of affairs may be due to trying to find the relevance when uttered out of context. The consistency of speaker productions of verbs such as 'be cheap' (with *-ite*) and 'be expensive' (without *-ite*) indicate some level of conventionalization of *-ite*'s use; it is interesting, if speculative, to think about why certain verbs tend to pair with *-ite* while others do not.

6.8   Conclusion

Synchronically, *-ite* functions as a stativizer in Totela. It attributes a state to the subject of the verb it attaches to. I have argued that the phase of a situations internal event structure within which it creates a state is based on relevance: use of *-ite* presupposes that the assertion of the subject's state answers a question posed in discourse.

    This analysis of *-ite* raises questions about its historical development, and particularly about a proposed Proto-Bantu reconstruction as an anterior (perfect) marker, as in (e.g.) Nurse (2008). An origin as a resultative marker seems more likely. Uses of similar suffixes in closely related languages, as well as the complex semantics reported for *-ite*, *-ile*, and similar

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[42]The verb for 'black' is the same as the verb for 'dirty', so use of *-ite* would indicate a temporary state. See also example (391) for Tonga.

[43]*-ite* occurs quite frequently in Totela with the verb 'to suffer'.

suffixes across Bantu, suggest that a strong pragmatic component is at play with the suffix in those languages, as well.

In narratives, -*ite* appears most often in the orientation and in common collocations with motion verbs marking character transitions from one location to another. The relevance presupposition is evident in narratives, as well: -*ite* paints a picture of the current subject of narration that is relevant to understanding the story as a whole, setting the stage for the actions that follow.

Chapter 7

Outline of Tense, Aspect, and Mood Marking in Totela

7.1   Introduction

This chapter aims to give a basic overview, with exemplification, of many of Totela's morphological and periphrastic means of expressing tense, aspect, and mood contrasts in the verbal system that were not discussed in detail in the preceding chapters.

Section 7.2 describes markers of completion, tense, and tenor in Totela, noting the markers analyzed in preceding chapters, and focusing on *-na-*, which appears in hodiernal impefectives and in past negatives. *-na-* is analyzed as relating perspective time to a phase (namely the "semantically contentful" phase) of a situation's internal structure. I argue for its analysis as a general past marker.

Section 7.3 introduces markers and constructions whose functions are in some way aspectual, including "general" imperfectives, progressives, and habituals. Means of expressing prototypically "perfect" meanings are also briefly noted; these are also discussed throughout the study. Section 7.3 ends with a short recapitulation of the analysis of stativizing suffix *-ite*, which is also the subject of chapter 6, "situative" *na-*, "persistive" *-chi-*, and a marginal "continuative" construction.

Section 7.4 deals with the expression of mood in Totela, including negation; imperative, hortative, and subjunctive forms; and conditional and counterfactual constructions. Section 7.5 describes a few other periphrastic constructions in Totela related to TAM, including the expression of "since", "almost", and "not yet". The use of adverbial *bu-* (from the class 14 marker used for abstract nouns) to describe manner and repeated actions is also described.

Section 7.6 describes the use of narrative morphology in Totela, as well as the statistical prediction of its occurrence on particular verbs within narratives. The chapter concludes with a brief reference overview of major TAM-related markers and constructions in Totela (section 7.7).

7.2 Completion, Tense, and Tenor

Totela's TAM system distinguishes the day of perspective time from other times, marking prehodiernal pasts and posthodiernal futures.

I argued in chapters 3 and 4 that the hodiernal markers are more appropriately analyzed as marking completion (hodiernal "past" *-a-*) or non-completion (hodiernal non-past *-la-*). Chapter 5 argued that pre- and posthodiernal forms, in contrast with *-a-* and *-la-/-Ø-*, are dissociative markers as in Botne & Kershner (2008). They shift the discourse from the here-and-now to a cognitive world excluded from the time frame of the current conversational domain. In general, the associative temporal domain consists of the day in which perspective time is located.

The understanding of the Totela time-marking system proposed in this study is as in table 7.1. *-ka-* and *na-* are domain-shifting tense markers. *-a-* and *-la-* (or *-Ø-*) indicate completion or non-completion in the currently evoked domain.

Form	Proposed Function	See Chapter
-ka-	Dissociative Past	**5**
-a-	Completive	**3**
-la-	Non-completive	**4**
na-	Dissociative Future	**5**

Table 7.1: Proposed system of completion and dissociation in Totela

Detailed descriptions of the forms and their distributions, as well as arguments for their proposed functions, are given in the chapters listed in table 7.1. The remainder of this section discusses *-na-*, which I argue is a general past marker that can be analyzed as a "tenor" under Botne & Kershner's proposed system (Botne & Kershner 2008). A summary of the system marking tense, tenor, and (non-)completion is given in 7.2.2, before moving to discussion of aspect-related marking in 7.3.

7.2.1 Past *-na-*

In addition to completive *-a-*, Totela has a general past marker *-na-* that occurs with hodiernal situations – usually interpreted as imperfective – as well as prehodiernal and hodiernal negatives. In this section, I describe *-na-* and present a brief, preliminary argument that *-na-* is not an imperfective marker, but a general non-domain-changing past, such as Botne & Kershner (2008) might analyze as a "tenor".

When it appears, *-na-* follows the subject marker, and co-occurs with a H tone on the second root mora, which surfaces on the first root mora. It thus differs from posthodiernal dissociative *na-* in its location in the verbal template (post-SM rather than pre-SM, as with

dissociative *na-*), and in tonal environment.

(405)   *ndìn̲à̲**ñ̃á**tàwùlà*

     ndì-n̲à̲-**ñ̃á**t-àwùl-à
     1SG-P̲S̲T̲-cut-ITER-FV

     'I was cutting to pieces' (ZT2009Elic45)

That the H tone surfaces on the first root mora, and not the mora following *-na-*, is shown in (406).

(406)   *tàndìn̲à̲kàmù**ñ̃á**tàwùlà*

     tà-ndì-n̲à̲-kà-mù-**ñ̃á**t-àwùl-à
     NEG-1SG-P̲S̲T̲-DIST-3SG-cut-ITER-FV

     'I didn't cut him to pieces' (yesterday or before) (ZT2009Elic45)

-na- exhibits some degree of vowel length, and has falling tone when immediately preceding monosyllabic stems, as in (407). Because the length of *na-* is variable, and is not potentially contrastive in this position, length is not indicated in the orthography.

(407)   *tàndì**n̂â**lwì*

     tà-ndì-**n̂â**-lu-ì
     NEG-1SG-P̲S̲T̲-fight-FV.NEG

     'I didn't fight' (ZT2009Elic45)

Other morphemes in this position surface with only H tone, as shown in (408), where pre-root posthodiernal *-ka-* does not surface with falling tone.

(408)   *tàndìn̲à̲**ká**lwì*

     tà-ndì-n̲à̲-**ká**-lu-ì
     NEG-1SG-P̲S̲T̲-PREHOD-fight-FV.NEG

     'I didn't fight' (yesterday or before) (ZT2009Elic26)

(407) also shows that monosyllabic stems have a final *-i* with past *-na-*.

7.2.1.1   Negation

An example of *-na-* in a negative form (the prehodiernal past) is shown in (406). With the exception of prehodiernal imperfective forms, *-na-* appears in all past negatives, hodiernal and prehodiernal. Negative tone patterns and final vowels are the same as in affirmative forms. Negation with hodiernal and prehodiernal pasts is shown in (409a) and (409b),

respectively. (409c) shows that *-na-* does not occur with prehodiernal imperfective negated forms.

(409)   a. *tàndìnâli*
            ta-ndi-<u>na</u>-l-i
            NEG-1SG-<u>PST</u>-eat-FV.NEG
            'I didn't speak' (ZT2009Elic45)

        b. *tàndìnàkálì*
            ta-ndi-<u>na</u>-ka-l-i
            NEG-1SG-<u>PST</u>-PREHOD-eat-FV.NEG
            'I didn't eat' (yesterday or before) (adapted from analogous example in ZT2009-Elic26)

        c. cf. *tàkándìlyâ*
            ta-ka-ndi-li-a
            NEG-PREHOD.IPFV-1SG-eat-FV
            'I didn't use to eat' (adapted from analogous example in ZT2009Elic58)

        d. *takandinali
            *ta-ka-ndi-<u>na</u>-li
             NEG-PREHOD.IPFV-1SG-<u>PST</u>-eat-FV.NEG
            (intended): 'I didn't use to eat'

Negation of hodiernal completive and *-na-* forms is identical, as in (410). Both of these forms indicate that something did not happen in the hodiernal past. A full semantic study of negation in Totela, in the spirit of Contini-Morava (1989) for Swahili, is outside the scope of this study, but it may be noted that because non-occurrence entails nuclear non-completion, a past negative is sufficient for both of these meanings.[1]

(410)   *tàndì**nâ**lwì*

        tà-ndì-**nâ**-lu-ì
        NEG-1SG-<u>PST</u>-fight-FV.NEG

        'I didn't fight' (ZT2009Elic45)
        'I wasn't fighting' (ZT2009Elic45)

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[1]Furthermore, I argue in chapter 3 that *-a-* indicates that perspective time is located after the nuclear completion of the predicate, and the location of the coda relative to perspective time is recoverable only via context. Since negation does not appear to be able to scope over only tense and aspect markers, it makes sense that a negative past is incompatible with a marker of nuclear completion. Negation asserts non-occurrence, while the *-a-* marker asserts nuclear completion.

7.2.1.2 Analysis of *-na-*

Although *-na-* is the only tense/aspect marker in hodiernal imperfectives, I analyze it as a general past for the following reasons:

1. It appears in all past negatives, aside from prehodiernal imperfective negatives (409).

2. The negation of hodiernal completives and hodiernal imperfectives is identical in form (410).

3. Affirmative uses are not always straightforwardly imperfective (411)-(412), and it is incompatible with some true statives (413)-(416).

4. It appears with completive *-a-* in past anteriors (pluperfects) (417).

Affirmative pasts with *-na-* are not always straightforwardly imperfective, although they may usually be interpreted as such. For example, *-na-* was used by at least some speakers as a sort of experiential perfect within the hodiernal domain, as in (411).

(411) *nasunu, mu<u>na</u>yi kwaNawinda?*

    na=sunu   mu-<u>na</u>-y-i   kwa-Nawinda
    COM=today 2PL-<u>PST</u>-go-FV.PST CL17(LOC)-Nawinda

    'And today, have you gone to Nawinda?' (ZT2007Elic67)

Also, examples like (412) may call into question a straightforwardly imperfective analysis.

(412) *ndì<u>né</u>èzá bùlyó òkúmìlàànà*

    ndi-<u>na</u>-iz-a   bulyo oku-mi-laan-a
    1SG-<u>PST</u>-come-FV only INF-2PL-greet-FV

    'I only came/ I was only coming to greet you' (said upon taking leave) (ZT2009Elic-100)

Additionally, *-na-* has co-occurrence restrictions with true statives, which is somewhat unexpected if it is an imperfective marker. As shown in (413), *-na-* is incompatible with stative marker *-ite* (see 7.3.5.1 and chapter 6). Prehodiernal (dissociative) imperfective *ka-*, in contrast, is perfectly felicitous with *-ite*.

(413) **ndinachisitwe*

    *ndi-na-chis-it-w-e
    1SG-PST-hurt-ITE-PASS-ITE

    (intended) 'I was sick' (earlier today) (ZT2009Elic34)

The intended meaning in (413) can be expressed with a -*na*- form (without -*ite*), as in (414), an answer to the question 'why didn't you come?'.

(414) *ndìna̠chíswà*

      ndi-na̠-chis-w-a
      1SG-PST-hurt-PASS-FV

      'I was sick' (ZT2009Elic122)

With other stative verbs, such as -*ina* 'have, be (in a location)', prehodiernal imperfective *ka*- is used even with hodiernal situations (415). See section 7.3.1 for discussion of further temporal and selection restrictions of *ka*-.

(415) *sùnú èchífùmò kà̠kwìná òmúkùlù*

      sunu echifumo   ka̠-ku-ina   omukulu
      today CL7.morning PREHOD.IPFV-CL17(LOC)-be CL1.elder

      'this morning there was an elder' (ZT2009Elic122)

Also, although past negatives with -*na*- may have perfective or imperfective readings, when explicitly imperfective negation is desired – as with -*ite* forms – the prehodiernal marker is used instead of *na*-.[2]

(416) a. *sùnú èchífùmò tàkándìtàbìtê*
           sunu echifumo   ta-ka-ndi-tab-ite   sunu
           today CL7.morning NEG-PREHOD.IPFV-1SG-become.happy-STAT today

           'I wasn't happy this morning' (ZT2009Elic122)

      b. *tàkándìtwâ*
           ta-ka-ndi-tu-a
           NEG-PREHOD.IPFV-1SG-pound-FV

           'I wasn't pounding' (earlier today) (ZT2009Elic122)[3]

Thus, it seems that -*na*- is incompatible with many statives, and must instead be used with verbs where there is some sense of volition, activity, or change, including change-of-state verbs, verbs of mental activity (e.g. 'think'), perception statives (e.g. 'see'), and other non-stative duratives.

Finally, -*na*- may appear with completive -*a*-, resulting in past anterior (pluperfect) readings. Past -*na*- establishes a second perspective time; -*a*- locates nuclear completion at a time prior to that time.

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    [2]This may also be the case with other past imperfective negatives; I do not have extensive data on this issue.

    [3]Although this form is accepted in elicitation, I have found no clear examples of forms like this in my corpus, so this form/meaning pairing may be marginal.

(417) *àwá ndàsíkà ndèzà kùwààmà* **mwânàlúkà** *kàlê*

awa   nda-sik-a   nda-iz-a   ku-waan-a
CL16(LOC).DEM 1SG.CMPL-arrive-FV.RC 1SG.CMPL-come-FV INF-find-FV
mwa-na-luk-a kale
2PL.CMPL-PST-weave-FV already

'when I arrived I discovered **you had already woven**' (ZT2009Elic32)

Because of these facts, which speak against analysis of *-na-* as an imperfective marker, I propose that *-na-* indicates that the situation time is prior to perspective time, within the currently evoked domain, associative without *-ka-* and dissociative with *-ka-*. This proposal is sketched in the remainder of this section.

It was shown above in examples (413)-(416) that *-na-* may not co-occur with many of Totela's stative verbs, both inherent statives and statives derived with the *-ite* marker. It requires some element of change or activity, whether physical or mental. I tentatively propose that *-na-* selects as a frame in which to situate a derived perspective time the activity (or perception) phase of durative predicates, with no reference to nuclear completion or a coda phase. With change-of-state verbs, the phase selected seems to depend on the verb itself. Verbs for which the change is salient, as in *-bomba* 'soak', behave as telic duratives. Where the coda state comprises the verb's main semantic content, as with *-taba* 'become happy', perspective time is located by *-na-* in that state, resulting in past stative readings as in (418). With activity verbs, both telic and atelic, it is the nuclear phase itself, and not any result stages, that is located by *-na-*.

(418) *sùnú èchífùmò ndìnàtábà*

sunu echifumo   ndi-na-tab-a
today CL7.morning 1SG-PST-become.happy-FV

'this morning I was happy' (ZT2009Elic122)

The contentful phases of a change-of-state verb (*-taba* 'become happy') and a durative verb (*-samba* 'bathe') – that is, the phases referenced by *-na-* – are illustrated in figures (7.1) and (7.2), respectively.
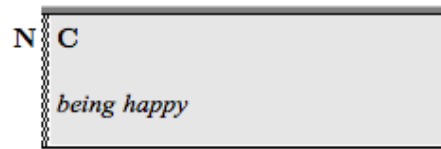
Figure 7.1: Contentful phase of *-taba* 'become happy'
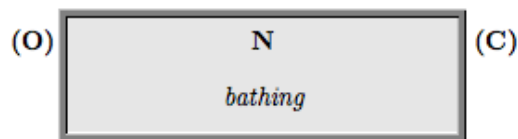
Figure 7.2: Contentful phase of -*samba* 'bathe'

Limiting situations to the semantically contentful phase results in default imperfective readings.

Other markers have been proposed to target semantically contentful phrases, as well, although the interpretations are different: Botne & Kershner (2008:171-172) describe a present "continuative" marker -*ku*- in that selects the nuclear phase of durative verbs, and the coda state of change-of-state verbs, i.e. "an interval in the semantic core [or "essence"] of the event" (Botne & Kershner 2008:172).

In temporal clauses and in scene setting, -*na*- establishes a new perspective time frame, in the past of the current perspective time, apparently in the "core", or most contentful, phase of the situation. This phase acts as a frame for locating other situation nuclei, as in (419) and (420).

(419) *àwá **ndìnàláwùkà** ndàwààná òmùntù nàlyâ*

awa   **ndi-<u>na</u>-lawuk-a** nda-waan-a   omuntu   na-li-a
CL16(LOC).DEM 1SG-<u>PST</u>-run-FV 1SG.CMPL–find-FV CL1.person SIT-eat-FV

'while **I was running/I ran** [earlier today], I came across a person eating' (ZT2009-Elic29)

(420) *Sùnú èchìfúmò àwá **mùnáchìlààlà**, ímè ndàyá kùmpìlì. Àwá mwàbúùkà ndânàbóólà kàlê.*

sunu echifumo   awa   **mu-<u>na</u>-chi-laal-a**   ime
today CL7.morning CL16(LOC).DEM 2PL-<u>PST</u>-PERS-sleep-FV 1SG.PRON
nda-y-a   ku-mpili   Awa   mwa-buuk-a
1SG.CMPL-go-FV CL17(LOC)-CL9.fields CL16(LOC).DEM 2PL.CMPL-wake.up-FV
nda-<u>na</u>-bool-a   kale
1SG.CMPL-<u>PST</u>-return-FV already

'This morning while **you were still sleeping**, I went to the fields. When you woke up, I had already returned' (ZT2009Elic68)

Similarly, a personal narrative about events of the night before begins with the scene-setting phrase in (421). This utterance was followed by the description of ensuing events, some during (i.e. interrupting) the sleeping time, and some after.

(421) *Àmásìkù, ndìnálààlà.*

amasiku   ndi-na-laal-a
CL6.night 1SG-PST-sleep-FV

'Last night, I was sleeping.' (ZT2009NarrA47.CN.4-5 *Tukoswe!*)

In summary, I suggest that *-na-* is a non-domain-changing past marker, situating a situation's "core" phase in the past of perspective time. Referring to this phase, rather than using completive *-a-*, results in past imperfective readings in most contents. With negation, the imperfective/perfective contrast is neutralized. When completive *-a-* and past *-na-* co-occur, the result is pluperfect, as in (417) above.

7.2.2 Summary

In summary, Totela's system of marking (non-)completion, tense, and tenor is as follows: *-ka-* marks (prehodiernal) past dissociation. Posthodiernal *na-* dissociates to a future domain. *-a-* is a completive marker within the currently evoked domain, and its absence (sometimes coinciding with *-la-* marking) indicates non-completion. *-na-* appears to be a marker of past, with somewhat limited distribution.

Form	Proposed Function	See Chapter
-ka-	Dissociative Past	5
-a-	Completive	3
-la-	Non-completive	4
na-	Dissociative Future	5
-na-	Past	(this section)

Table 7.2: Summary of completion, tense, and tenor marking in Totela

7.3 Aspect

Chapter 1 describes theories of aspect as selecting a "viewpoint" (as in Smith 1997) or relating topic time to situation time (as in Klein 1994). In a similar vein, Botne & Kershner (2008:171) offer the following definition:

> Aspect denotes the particular temporal view of time in the narrated event. More precisely, a specific aspect denotes a particular temporal phase of the narrated event as the focal frame for viewing the event. This focal frame depicts the status of the event in relation to the vantage point determined by Ego, by default typically the moment of speaking (Botne & Kershner 2008:171).

In short, according to Botne & Kershner, aspect situates perspective time ("the vantage point determined by Ego") within a phase selected from the verb's inherent situation type structure.

By this definition, *-a-* and *-la-/-Ø-* partly qualify as aspectual, because they situate perspective time with respect to a situation's nucleus, specifically, nuclear completion. On the other hand, they do not necessarily select a temporal phase as a "focal frame". Perspective time is for all intents and purposes punctual, as is nuclear completion itself. Prehodiernal *-ka-* and posthodiernal *na-* do not have any aspect-like characteristics; they are tenses, because they invoke dissociated temporal domains. In 7.2.1, *-na-* was analyzed as a past marker, although in the affirmative it does seem to have some aspectual function, as well: in opposition to completive *-a-*, it situates perspective time with respect to the "contentful" phase of a situation's event structure.

In this section, I take a working definition of aspect similar to that of Klein (1994) and Botne & Kershner (2008), in which aspect selects a phase, or topic time, from the situation's event structure. Further perspective times and situations may be introduced within this phase, e.g. '*while I was scrubbing the sticky glass, the tea kettle whistled*'. I have argued in previous chapters that Totela does not have clear cases of perfective marking. In contrast, some markers and constructions do have imperfective and other aspectual functions. In this section, I discuss markers which have clear aspectual functions, such as prehodiernal imperfective *ka-*, as well as forms and constructions that fulfill functions often considered by the literature to be examples of aspect. As a result, this section sometimes takes a form-to-function approach (describing the usage domains and interpretive possibilities of forms that seem to have some aspectual function) and sometimes function-to-form (indicating some of the forms and constructions used to express particular meanings). I mix approaches in this way for the sake of completeness; it does not reflect a theoretical stance.

7.3.1   Prehodiernal imperfective *ka-*

The *ka-* imperfective marker is prefixed to the subject marker,[4] along with a special tone pattern surfacing as a penultimate H, often with plateauing (see appendix C). It is distinguished from prehodiernal *-ka-*, which co-occurs with completive *-a-* in the affirmative, in its tone pattern and pre-SM position. It surfaces with H tone in negated (424) and subordinate (423) clauses.

(422)   <u>*kàtùhúpúlà*</u> (or *kàtùhùpúlà*)

<u>kà</u>-tù-húpúl-à
prehod.ipfv-2PL-think-FV

'we used to think' (ZT2009Elic58)

---

[4]Larry Hyman (p.c.) speculates that this form, like many in Bantu, may have grammaticalized from an earlier periphrastic form, e.g. 'I was' + 'I walk'. The pre-SM position speaks for such an origin, as new material tends to grammaticalize at the edges of words.

(423) *ndìjìlò kátùwâmbà*

    ndì-ìjìlò   ká-tù-wámb-à
    1SG-yesterday PREHOD.IPFV-1PL-speak-FV.RC

    'it was yesterday that we were talking'

7.3.1.1 Negation

Prehodiernal imperfective *ka-* forms are negated with a *ta-* prefix, as in (424). *ka-* surfaces with H tone when negated, as it does in relative and other subordinate clauses (all glossed as RC; see example (423) above).

(424)   a. With toneless monosyllabic root -*lwa* 'fight'
             tàkátùlwâ
             tà-ká-tù-lu-â
             NEG-PREHOD.IPFV-1PL-fight-FV
             'we weren't fighting/didn't use to fight' (ZT2009Elic58)

        b. With H-toned root -*hupula* 'think'
             tàkátùhùpúlà / tàkátùhúpúlà
             tà-ká-tù-húpúl-à
             NEG-PREHOD.IPFV-1PL-think-FV
             'we weren't thinking / didn't use to think' (ZT2009Elic58)

7.3.1.2 Distribution and temporal interpretations

ka- is used for prehodiernal imperfectives, including progressive (425)-(426), continuous (427)-(428),[5] and habitual situations (429). In normal speech, the *ka-* prefix can coalesce with vowel-initial subject markers, as detailed in 2.2.4.2. In relative clauses, *ka-* gets a H tone from the subject marker (426).

    (425) and (426) show activities in-progress during the topic time frame selected by -*ka-*. The selection of a time frame in (426) specifies the time of completion of the main-clause situation of finding the eating person.

(425)   *ìjìlò kàndìtwâ*

    ijilo   ka-ndi-tu-a
    yesterday PREHOD.IPFV-1SG-pound-FV

    'yesterday I was pounding' (ZT2009Elic122)

---

[5]In fact, there is no difference in Totela, as far as I can tell, between continuous and progressive aspects with *ka-*, aside from the differences in English translation. -*na-*, on the other hand, is sensitive to some differences between statives and non-statives, as are some present progressive forms. See the relevant sections for details.

(426) *àwà **kándìlàwúkà** ndàkàwààná òmùntù nàlyâ*

awa   **ka-ndi-lawuk-a**   nda-ka-waan-a
CL16(LOC).DEM PREHOD.IPFV-1SG-run-FV.RC 1SG.CMPL-PREHOD-find-FV
omuntu   na-li-a
CL1.person SIT-eat-FV

'while **I was running**, I came across a person eating' (ZT2009Elic29)

(427) and (428), with less obviously active verbs, may be translated with English simple pasts, but still represent a topic time selected from within the situation. (427) further shows that in selecting a topic time in the prehodiernal past, *ka-* marking may also allow a perspective time shift, so that the complement clause takes no prehodiernal marking.

(427) *. . . kàndìhùpúlà òkùtì mwàmànà kàlê. . .*

. . . <u>ka</u>-ndi-hupul-a   okuti mwa-man-a   kale. . .
. . . PREHOD.IPFV-1SG-think-FV COMP 2PL.CMPL-finish-FV already

'. . . I thought you were already finished' (ZT2009Elic56)

(428) *kàbàlì bòtî básìkòswè. . . ?*

<u>ka</u>-ba-li   boti   ba-sikoswe. . . ?
PREHOD.IPFV-CL2A-be CL2A.how.many CL2A-rat

'how many rats were there?' (ZT2009Elic129)

(429) *awa <u>ka</u>uchili mucheche, ndini kejika insima?*

awa   <u>ka</u>-u-chi-li   mucheche, ndini
CL16(LOC).DEM PREHOD.IPFV-2SG-PERS-be CL1child   who.SG
ka-ijik-a   insima?
PREHOD.IPFV.3SG-cook-FV.RC CL9.nshima

'when you were still a child, who used to cook nshima?' (ZT2006Elic60)

As with prehodiernal *-ka-*, prehodiernal imperfective *ka-* can refer to any time in the prehodiernal past, from yesterday to in the distant past, as in (430).

(430) *Akale, <u>ka</u>tuzwatanga obwandi. . . Banku wetu bakukale ezi <u>ka</u>bazwata tatuziizi.*

akale   <u>ka</u>-tu-zwat-ang-a   obwandi   . . . Ba-nku
long.ago PREHOD.IPFV-1PL-put.on-HAB-FV CL14.bwandi . . . CL2A-grandmother
wetu   ba-ku-kale   ezi
CL1.1PL(POSS) CL2A-CL17(LOC)-long.ago CL8.DEM
<u>ka</u>-ba-zwat-a   ta-tu-zi-izi
PREHOD.IPFV-CL2A-put.on-FV NEG-1PL-CL8-know.STAT

'long ago, we used to wear *bwandi*. Our grandmothers of long ago, the things they wore, we don't know them' (ZT2007Narr14.VK, *Awa kandichili mwaniche*)

In general, *ka-* forms are infelicitous when used refer to situations on the day of utterance.

(431) *sùnú èchífùmò k̠àndìtwâ*

 *sunu echifumo   k̠a-ndi-tu-a
 today CL7.morning PREHOD.IPFV-1SG-pound-FV

 intended: 'this morning I was pounding' (ZT2009Elic122)

However, with a few truly stative or stativized verbs, such as *-iziba* 'come to know' and *-ina* 'be, have', *ka-* is permitted to select hodiernal topic times.

(432) *sùnú èchífùmò k̠àndììzì, ânò ndàzìbàlà*

 sunu echifumo   k̠a-ndi-izi,   ano
 today CL7.morning PREHOD.IPFV-1SG-come.to.know.STAT CL16(LOC).DEM
 nda-zibal-a
 1SG.CMPL-forget-FV

 'this morning I knew; now I forget' (ZT2009Elic122)

(433) *sùnú èchífùmò k̠àkwìná òmúkùlù*

 sunu echifumo   k̠a-ku-ina   omukulu
 today CL7.morning PREHOD.IPFV-CL17(LOC)-be CL1.elder

 'this morning there was an elder' (ZT2009Elic122)[6]

As argued in 7.2.1, *-na-* indicates an ongoing state in the past when used with change-of-state verbs; however, it is not a true imperfective and cannot co-occur with stativizing suffix *-ite*. Also, as discussed in 7.2.1, prehodiernal imperfective *ka-* with *-ite* and change-of-state verbs may co-occur when negated with the adverbial *sunu* 'today', possibly because negation with past *-na-* neutralizes the perfective/imperfective contrast. Consultants accepted at least one non-*ite* verb in the negative and prehodiernal imperfective *ka-*, as well, as in (434), repeated from (416).

(434) a. *sùnú èchífùmò tàkándìtàbìtê*
     sunu echifumo   ta-ka-ndi-tab-ite
     today CL7.morning NEG-PREHOD.IPFV-1SG-become.happy-STAT

     'I wasn't happy this morning' (ZT2009Elic122, repeated from (416a))

---

[6]Outside of context, the meaning of this utterance is not entirely transparent. In any case, it was accepted in elicitation when other forms were rejected. More common when talking about location earlier in the day is the verb *-ikala* 'sit, stay' which can be used with *-na-*, as in (1).

 (1) *eziyuni zinakekala kwibo?*

   eziyuni zi-na-ka-ikal-a   ku-ibo?
   CL8.bird CL8-PST-DIST-stay-FV CL17(LOC)-where

   'where were the birds?' (earlier today) (ZT2007Elic68)

b. *tàkándìtwâ*

ta-ka-ndi-tu-a

NEG-PREHOD.IPFV-1SG-pound-FV

'I wasn't pounding' (earlier today) (ZT2009Elic122, repeated from (416b))[7]

c. cf. **sùnú èchífùmò kàndìtàbìtê*

*sunu echifumo ka-ndi-tab-ite

today CL7.morning PREHOD.IPFV-1SG-become.happy-STAT

'I wasn't pounding' (earlier today) (ZT2009Elic122)

Like *-ka-* in chapter 5, *ka-* may be analyzed as a dissociative marker, selecting a domain separate from the currently evoked discourse world. The possibility of using negated *ka-* forms in 'today' contexts requires further study. Negation (as in (434)) or a change of a state expected to be permanent (432) may be enough to allow a dissociative meaning.

Unlike prehodiernal *-ka-*, prehodiernal *ka-* also contributes aspectual meaning, selecting a topic time within the "semantic core" of a situation. This aspectual specification may allow it to be used with negation in hodiernal contexts, and with a few true statives (especially when contrasting with a present situation, as in (432)), when imperfective topic-time selection is required.

Thus, *ka-* is a portmanteau morpheme, indicating both tense (prehodiernal dissociative) and aspect (imperfective).

7.3.2 Progressive

This section describes several progressive constructions in the present, past, and future with respect to perspective time.

7.3.2.1 Present Progressive

While *-la-* and *-Ø-* forms may be used with progressive meaning (see chapter 4), speakers more commonly use one of several periphrastic forms for specifically progressive content. Which periphrastic construction is chosen appears to vary somewhat from community to community.[8]

-kweesi 'have, hold', the *-ite* form of *-kwaata* 'grasp, grab', is used in at least two progressive constructions, one with an infinitive (435a), and one with non-completive *-la-* (435b).

(435)　a. *mulikweesi okuñola?*

mu-li-kweesi oku-ñol-a?

2PL-PRES.STAT-grab.STAT INF-write-FV

'are you writing?' (ZT2007Elic28)

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[7]Although this form is accepted in elicitation, I have found no clear examples of forms like this in my corpus.

[8]See chapter 2 for discussion of the Totela-speaking communities contributing to this study, and some of the differences between their respective Totela varieties.

b. *ndilikweesi ndilayenda*

ndi-li-kweesi ndi-la-yend-a
1SG-PRES.STAT-grab.STAT 1SG-NONCMPL-walk-FV

'I am walking' (ZT2007Elic14)

These forms appear to be truly progressive, and are judged incompatible with stative verbs, as in (436).[9]

(436) **ndilikweesi okusaka*

*ndi-li-kweesi oku-sak-a
2PL-PRES.STAT-grab.STAT INF-want/like/love-FV

(intended): 'I am wanting (I want)' (ZT2009Elic59)

-kweesi is used frequently as a possessive.

(437) *Abaana ukweesi mboti?*

abaana u-kweesi mboti?
CL2.child 2SG-grab.STAT COP.how.many

'how many children do you have?' (ZT2006Elic54)

A second type of present progressive construction uses *-ina* 'have, be (in a location)' followed by an infinitive, as in (438) and (439), both descriptions of ongoing action.

(438) *mwìná òkùyèndà-yèndà kùñándà*

mu-ina oku-yend-a-yend-a ku-ñanda
2pl-have inf-walk-fv-redup-fv cl17(loc)-house

'you're pacing in front of the house' (ZT2009Elic70)

(439) *mwìná òkúzìngùlùká ˈkú(m)bàlì nèchífùndà*

mu-ina oku-zinguluk-a ku-mbali na=echifunda
2PL-have INF-encircle-FV CL17(LOC)-side COM=CL7.circle

'you're going around the circle' (ZT2009Elic70)

Unlike *-kweesi* constructions, *-ina* progressives are somewhat commonly used with habitual aspect (see 7.3.3), and with stative verbs. It was accepted with *-saka* 'want, like, love' in elicitation (ZT2009Elic59).

-ina may be used on its own in locative (and possessive) constructions, as in (440), which was used to describe a picture.

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[9]Despite this incompatibility, *-kweesi* constructions (with *-la-*) have also been attested in elicitation with habitual readings. These constructions appear to be marginal and are not dealt with here.

(440) *yùmwí èná òkùlé nèñándà*

yumwi   a-ina   okule na=iñanda
CL1.one CL1-be far   COM=CL9.house

'one [of them] is far from the house' (ZT2009Elic86)

7.3.2.2 Past progressive

Past progressive meanings are most frequently expressed with past -*na*- (hodiernal past progressives) or prehodiernal imperfective *ka*- (prehodiernal past progressives). For examples, see the respective sections (7.2.1 and 7.3.1) above.

7.3.2.3 Future progressive

As noted in chapter 5, posthodiernal future forms are unspecified for aspect. A somewhat infrequent construction is also available to express specifically progressive/imperfective futures.[10] This form, illustrated in (441), does not exhibit any hodiernality effects, and may be used for situations on the day of perspective time, as well as after that day.

(441) *ìjìlò/sùnù ésì ndé ꜜkúlyà, námwîzè*

ijilo/sunu   esi   nde-ku-li-a   na-mu-iz-e
tomorrow/today COND 1SG.FUT.IPFV-INF-eat-FV POSTHOD-2PL-come-FV.SBJV

'tomorrow/today while I'm eating, come' (ZT2009Elic68)

A periphrastic form is also attested:

(442) *nandilaba ndiyenda*

na-ndi-la-b-a   ndi-yend-a
POSTHOD-1SG-NONCMPL-be-FV 1SG-walk-FV

'I will be walking' (ZT2007Elic56)

7.3.3 Habitual

Non-completives -*la*- and -∅- may both be used with habitual meaning, especially when the root is suffixed with habitual extension -*ang*- (see also 2.3.1.5), although -*ang*- is not obligatory. This section describes uses of -*ang*-. Most of the meanings may also be expressed adverbially without -*nga*-. (443) shows an example of -*nga*- with non-completive -*la*-.

(443) *tù(lá)byààlàngá ìhûmbì*

tu-(la)-byaal-ang-a   ihumbi
1PL-(NONCMPL)-sow-HAB-FV CL5.HOT.SEASON

'we sow in the hot season' (ZT2007Elic117)

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[10]In my notes, it appears exclusively in 'while' clauses; this may or may not be a general constraint.

Similarly, past habituals may be expressed with *ka-* imperfectives, with or without habitual *-ang-*. Section 7.3.1 has examples without the habitual extension; (444) shows prehodiernal imperfective *ka-* with the habitual extension.

(444) *kàtùyásàngà*

ka-tu-yas-ang-a
PREHOD.IPFV-1PL-spear-HAB-FV

'we used to spear (regularly)' (ZT2009Elic58)

Negation is as expected, with the same *ta-* prefix as used for forms without *-nga-*. An example with the prehodiernal imperfective is given in (445).

(445) *tàkándìzáànàngà*

ta-ka-ndi-zaan-ang-a
NEG-PREHOD.IPFV-1SG-dance-HAB-FV

'I didn't use to dance' (ZT2009Elic120)

As noted in 2.3.1.5, a form very similar to habitual extension *-nga-* may be used as an auxiliary verb in habitual constructions with situative *na-*, as illustrated in (446). Situative *na-* is discussed in 7.3.5.2.

(446) a. *bángà nàbàyá mùkùnèngà*

ba-nga   na-ba-y-a   mu-ku-neng-a
3PL-HAB SIT-3PL-go-FV CL18(LOC)-INF-dance-FV

'they (habitually) go dancing' (ZT2009Elic70)

b. *tàndíngà nàndìlàwúkà*

ta-ndi-nga   na-ndi-lawuk-a
NEG-1SG-HAB SIT-1SG-run-FV

'I don't (regularly/ever) run' (ZT2009Elic69)

c. *tàndìngà nàndìlàwùkângà*

ta-ndi-nga   na-ndi-lawuk-ang-a
NEG-1SG-HAB SIT-1SG-run-HAB-FV

'I don't (regularly/ever) run' (ZT2009Elic69)

No specifically habitual future forms occur in my data, but posthodiernal *na-* may also be used in habitual contexts.

(447) *oyu esi nabe omukulu nalaamba amakande aMachile*

Oyu   esi   na-b-e   omukulu
3SG.PRON COND POSTHOD-be-FV.SBJV CL1.elder

na-la-(w)amb-a   amakande a-Machile
POSTHOD.3SG-NONCMPL-speak-FV CL6.story CL6-Machile

'when he is an old man, he will tell stories about Machile' (ZT2006Elic32)

7.3.4 "Perfect" meanings

Totela may express all of the four major subtypes of perfect (/anterior) functions given in Comrie (1976): PERFECT OF RESULT (448), EXPERIENTIAL PERFECT (449), PERFECT OF PERSISTANT SITUATION (450), and PERFECT OF RECENT PAST (451), but does not have a specific form dedicated to these meanings. Candidate for a perfect/anterior form in Totela are completive -a- and stativizing -ite, but arguments in the chapters describing these markers (3 and 6, respectively) show shows that such analyses is not tenable. Detailed discussions of perfect semantics and types of perfects, as well as their expressions in Totela, may be found in 3.2.3. Because there is no simple form-to-function correspondence, the utterances listed here are only examples of how perfect functions *may* be expressed in Totela, and should not be taken as exhaustive. Rather, they merely give possibilities for the expression of what in English takes a Perfect form; the same meaning might also be expressed with different morphology.

(448) Perfect of result:
ezilya za̲mena nokutawula

ezilya   za-men-a   noku-tawul-a
CL10.crop CL10.CMPL-sprout.up-FV COM.NARR-weed-FV

'the crops have sprouted up, then [we] weed' (ZT2007Elic89)

(449) Experiental perfect:
  a. *mubupono bwenu mwa̲nayi kwaLusaka?*

   mu-bupono   bwenu   mwa-na-y-i
   CL18(LOC)-CL14.life CL14.2PL(POSS) 2PL.CMPL-PST-go-FV
   kwa-Lusaka?
   CL17(LOC)-Lusaka

   'in your life, have you been to Lusaka?' (past anterior: lit. 'had you gone') (ZT2007Elic67)

  b. *mwali kukalisa okupona, mwakaya kwaLusaka?*

   mwa̲-li   ku-kalis-a   oku-pon-a,   mwa-ka̲-y-a
   2PL.CMPL-be NARR-begin-FV NARR-live-FV 2PL.CMPL-PREHOD-go-FV
   kwa-Lusaka?
   CL17(LOC)-Lusaka

   'in your life (since you began to live), have you been to Lusaka?' (prehodiernal: lit. 'did you go') (ZT2007Elic68)

(450) Perfect of persistent situation:
íswè tùlàchìswà òkùzwá èzílìmò zòbílè

iswe   tu-la-chis-w-a   oku-zu-a   ezilimo zo-bile
1PL.PRON 1PL-PRES-hurt-PASS-FV NARR-come.out-FV CL8.year CL8-two

'we've been sick for two years' (ZT2009Elic67)

(451) Perfect of recent past:
       ndendizwa okulya ano

       nde-ndi-zu-a   oku-li-a   ano
       DM-1SG-come.out-FV INF-eat-FV CL16(LOC).DEM

       'I've just eaten' (ZT2006Elic22)

7.3.5   Other markers with aspectual functions

7.3.5.1   Stativizing *-ite*

A very common and important suffix in Totela is *-ite*, discussed in detail in chapter 6, which
argues that *-ite* is a stativizer with a relevance presupposition.

With some predicates, *-ite* typically gives a stative or resultative reading, as in (452).
In the resultative cases, the situation described in the predicate took place in the past with
respect to perspective time, but its results continue. With other predicates, such as those
in (453), the reading is more progressive-like, with the situation described still underway at
perspective time.

(452) Stative and resultative uses
       a. Stative:
           ndìlíbwènè
           ndi-li-bwene
           1SG-PRES.STAT-see.STAT

           'I see'
       b. Resultative:
           ndìlízìmènè
           ndi-li-zim-ene
           1SG-PRES.STAT-stand.up-STAT

           'I am standing'
       c. Resultative:
           ndìlílìbììkìtè
           ndi-li-li-biik-ite
           1SG-PRES.STAT-refl-hide-STAT

           'I am hiding'

(453) Progressive uses
       a. *ndìlìyèndètè*
           ndi-li-yend-ete
           1SG-PRES.STAT-walk-STAT

           'I am walking'

b. *ndìlìnèngètè*

ndi-li-neng-ete

1SG-PRES.STAT-dance-STAT

'I am dancing'

For at least some *-ite* constructions with duratives, speakers vary in their judgments of temporal interpretation when context is not provided. For example, both a resultative and a progressive reading were offered for the verb *-nenga* 'to dance':

(454)   a. *ndìlìnèngètè*

ndi-li-neng-ete

1SG-PRES.STAT-dance-STAT

'I am dancing' (ZT2007Elic113, among others)

b. *ndìlìnèngètè*

ndi-li-neng-ete

1SG-PRES.STAT-dance-STAT

'I have danced' (ZT2007Elic101)

Table 7.3 summarizes *-ite*'s temporal interpretive possibilities according to situation type. Not all readings are equally common, but all are attested.

Chapter 6 proposes that these readings can be explained under a unified analysis of *-ite* as a stativizer with a presupposition of relevance.

7.3.5.2   Situative *na-*

The situative, or participial, prefix *na-* (differentiated from posthodiernal *na-* in its tone pattern) may be used in subordinate clauses in any temporal domain to refer to a situation simultaneous with other situations, i.e. situations whose temporal instantiation includes or is coextensive with the topic time of another situation. Nurse describes the situative as occurring "in dependent clauses, representing a concomitant situation and/or a backgrounded situation" (Nurse 2008:123). Across Bantu, this marker is frequently related to persistive *-kí-* (Nurse 2008:247). In Totela, however, this marker seems to be transparently related to comitative proclitic *na=* 'with, and'. Situative *na-* occurs, as do other relative clauses, with a penultimate H tone pattern, with frequent H-tone plateauing on the macrostem.

In the past, situative *na-* typically appears with completive forms, both prehodiernal (455) and hodiernal (456).

(455)   *bàkàndìwàànà nàndìlyâ*

ba-ka-ndi-waan-a   na-ndi-li-a

3PL-PREHOD-1SG-find-FV   SIT-1SG-eat-FV

'they found me eating' (ZT2009Elic35)

Situation Type	Temporal Interpretation	Examples
STATE	STATIVE (relevant property)	chi-zimbuluk-<u>ite</u> CL7-circle(V).NEUT-<u>STAT</u> 'it's round' (NT)
ATELIC DURATIVE	"PROGRESSIVE" (often understood as a property of the subject)	ndi-li-neng-<u>ete</u> 1SG-PRES.STAT-dance-<u>STAT</u> 'I am dancing'
	"PAST" (selects from relevant result coda phase)	ndi-li-chab-<u>ite</u> inkuni 1SG-PRES.STAT-collect.wood-<u>STAT</u> CL9.wood 'I have collected [plenty of] wood'
TELIC DURATIVE	"PAST" (selects from coda phase)	ndi-li-yaak-<u>ite</u> afuwi nomulonga 1SG-STAT-build-<u>STAT</u> near COM.CL3.river '[My house is] built close to the river'
	"PROGRESSIVE" (selects from nuclear phase)	ndi-li-iz-<u>ite</u> 1SG-STAT-come-<u>STAT</u> 'I am coming'
CHANGE OF STATE	STATIVE (selects from coda phase)	ndi-li-tab-<u>ite</u> 1SG-STAT-become.happy-<u>STAT</u> 'I am happy'

Table 7.3: *-ite* and situation type

(456)   *ndàbàwààynà nàbàtwâ*

nda-ba-waan-a   <u>na</u>-ba-tu-a
1SG.CMPL-3PL-find-FV <u>SIT</u>-3PL-pound-FV

'I found them pounding' (ZT2009Elic48)

Situative *na-* is also felicitous with present and future times, as in (457)-(459).

(457)   *ndiyenda nandilapela*

ndi-yend-a   <u>na</u>-ndi-lapel-a
1SG-walk-FV <u>SIT</u>-1SG-pray-FV

'I walk praying' (ZT2007Elic28)

(458)   *ndilekala nandinywa*

ndi-la-ikal-a   <u>na</u>-ndi-nyu-a
1SG-NONCMPL-sit-FV <u>SIT</u>-1SG-drink-FV

'I will sit drinking' (ZT2007Elic28)

(459) *ijilo liizite nandilayenda <u>na</u>ndilapela*

ijilo   li-iz-ite   na-ndi-la-yend-a   <u>na</u>-ndi-lapel-a
CL5.tomorrow CL5-come-STAT POSTHOD-1SG-NONCMPL-walk-FV <u>SIT</u>-1SG-pray-FV

'tomorrow I will walk praying' (ZT2007Elic29)

Situative *na-* may also be used with other moods, as in the 'not yet' and 'before' examples in (460) and (461).

(460) *bàndìwàànà <u>nà</u>ndìtéénì kúlyà*

ba-ndi-waan-a   <u>na</u>-ndi-ta-in-i   ku-li-a
3PL-1SG-find-FV <u>SIT</u>-1SG-NEG-be-FV.NEG INF-eat-FV

'they found me not having yet eaten' (ZT2009Elic78)

(461) *ndakalaala, inywe <u>na</u>tamwini kusika*

nda-ka-laal-a,   inywe   na-ta-mu-in-i   ku-sik-a
1SG.CMPL-PREHOD-sleep-FV 2PL.PRON <u>SIT</u>-NEG-2PL-be-FV.NEG INF-arrive-FV

'I went to bed [yesterday] before you arrived' (lit: 'you not having arrived') (ZT2007-Elic88)

Situative *na-* may be used with the default final vowel -*a* or with -*ite* forms, as in (462).[11]

(462) *sùnù àwá ndìnâlì ndábòná òmùntù <u>nà</u>ítìtè*

sunu awa   ndi-na-l-i   nda-bon-a   omuntu   <u>na</u>-it-ite
today CL16.LOC 1SG-PST-eat-FV.PST 1SG.CMPL-see-FV CL1.person <u>SIT</u>-pass-STAT

'today while I was eating, I saw a person passing' (ZT2009Elic29)

Object markers may also be used with situative *na-*.

(463) ...*<u>nà</u>ndìbàbûîkà*

...<u>na</u>-ndi-ba-biik-a
...<u>SIT</u>-1SG-3PL-hide-FV

'...me hiding them' (ZT2009Elic48)

---
[11]-*ite* forms have their own particular tone patterns.

7.3.5.3 Persistive *-chi-*

Persistive ('still') *-chi-* is a reflex of a marker *kí*, extremely common as a persistive marker in the Savanna area and found in (at least) zones D, E, F, K, L, M, N, R, and S (Nurse 2008:146). In Totela, *-chi-* follows the subject marker and other post-SM TAM markers, but precedes object markers and distal *-ka-* (tuchikamu).

(464) *tùchìkàmùzíìkà*

       tu-chi-ka-mu-ziik-a
       1PL-PERS-DIST-3SG-bury-FV

       'we're still going to bury him [there]' (ZT2009Elic173)

In the affirmative (465), *-chi-*marked verbs surface with penultimate H (plus plateauing); with negative prefix *ta-*, as in (466), a H tone typically surfaces on the first root mora (see appendix C for details).

(465) *ndìchìhùpúlà*

       ndì-chì-hùpúl-à
       1SG-PERS-think-FV

       'I'm still thinking' (ZT2009Elic57)

(466) *tàndíchìhúpùlà*

       tà-ndí-chì-húpùl-à
       NEG-1SG-PERS-THINK-FV

       'I'm not thinking any more' (ZT2009Elic171)

Comrie (1985) analyzes the Bantu 'still' tenses as combinations of a tense presupposition – the situation held in the past – and a tense assertion – the situation holds at present. Similarly, Nurse writes that "the persistive denotes that an open-ended situation held in the past and continues to hold at the time of speaking" (Nurse 2008:247). These descriptions do not match with the Totela data, where *-chi-* may occur, in the present, with situations already underway, or with situations that have not yet commenced, as shown in (467).

(467) *ndìchìlwâ*

       ndì-chì-lu-â
       1SG-PERS-fight-FV

       'I'm still fighting'
       'I'm still going to fight' (ZT2009Elic57)

Rather than presupposing that a situation held in the past and asserting that a situation holds at present, Totela *-chi-*, I propose, asserts that perspective time is located prior to coda completion, presupposing that the situation obtains in the currently evoked discourse domain. Whether perspective time is located within the time of the situation itself is resolved by pragmatics in the present. Persistive *-chi-*, then, differs from *-la-* in presupposing, rather than asserting, that the situation obtains (or will obtain).[12]

In the past of perspective time, *-chi-* is only felicitous in forms without completive *-a-*, suggesting that assertion of nuclear completion is at odds with *-chi-*'s presupposition that the situation obtains at or after perspective time. *-chi-* may occur with prehodiernal imperfective *ka-* (468) and with past *-na-* (469), which also has default imperfective readings in the affirmative.[13]

(468)   *kátùchìnwâ*

    ka-tu-<u>chi</u>-nu-a
    PREHOD.IPFV-1PL-<u>PERS</u>-drink-FV

    'we were still drinking / we still drank' (ZT2009Elic58)

(469)   *awa weza kusika, ndina<u>chi</u>lya*

    awa   wa-iz-a   ku-sik-a,   ndi-na-<u>chi</u>-li-a
    CL16(LOC).DEM 2SG.CMPL-come-FV INF-arrive-FV 1SG-PST-<u>PERS</u>-eat-FV

    'when you came, I was still eating' (ZT2006Elic40)[14]

Persistive *-chi-* is used frequently to set a time frame in the past, as in (470).

(470)   *awa kandi<u>chi</u>li mucheche, inzobu kazili zingi*

    awa   ka-ndi-<u>chi</u>-li   mucheche, inzobu
    CL16(LOC).DEM PREHOD.IPFV-1SG-<u>PERS</u>-be CL1.child CL10.elephant
    ka-zi-li-   zi-ngi
    PREHOD.IPFV-CL10-be CL10-many

    'when I was still a child, there were many elephants' (lit. 'the elephants were many') (ZT2006Elic83)

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[12]To fully compare *-la-* and *-chi-*, more data are needed on the temporal interpretations of *-chi-* with change-of-state verbs. It may be noted that, as discussed in this section, *-chi-* is felicitous with *-ite* forms, which pick out the coda state of change-of-state verbs. It seems, then, that *-chi-* is less temporally restricted than non-completive *-la-*. My conjecture (to be confirmed) is that in the absence of the *-ite* suffix, *-chi-* also locates perspective time prior to nuclear completion. This, like *-la-* and *-Ø-*'s non-completion semantics, may be related to the absence of completive with *-a-* marking.

[13]The co-occurrence possibilities of posthodiernal *na-* and persistive *-chi-* require confirmation. One example is found in my notes (ZT2006Elic84) but there may be some conflation of persistive *-chi-* and class 7 object marker *-chi-*.

[14]*ndìnâlì*, without persistive *-chi-*, is also possible here, meaning 'when you came, I was eating'.

Co-occurrence with stativizing -*ite*, both in present (471) and past (472) contexts, is also felicitous. In these cases, I propose, -*chi*- takes the state focused by -*ite* as its temporal domain, and presupposes that that state still obtains at perspective time.

(471) *tùchì(mù)lìndîlê*

tu-chi-(mu)-lind-ile
1PL-PERS-(3SG)-wait-STAT

'we're still waiting (for him)'

(472) *kabachipengete*

ka-ba-chi-peng-ete
PREHOD.IPFV-3PL-PERS-suffer-ite

'they were still suffering' (ZT2009Elic117)

Negation of persistive -*chi*- results in a reading of 'not anymore'; negation takes scope over 'still'.

(473) *tàndíchìtwì*

ta-ndi-chi-tu-i
NEG-1SG-PERS-pound-FV.NEG

'I'm not pounding anymore / I won't pound anymore' (ZT2009Elic171)

(474) *tatuchiizi*

ta-tu-chi-izi
NEG-1PL-PERS-know.STAT

'we no longer know' (ZT2007Elic48)

Persistive -*chi*- is also used in a construction meaning something like 'as soon as', as in (475). These forms differ from prehodiernal imperfectives with -*chi*- in that the initial *ka*-marker does not surface with H tone.[15]

(475) *kàmùchìsâmbà tùláyà*

ka-mu-chi-samb-a   tu-la-y-a
DM-2PL-PERS-bathe 1PL-NONCMPL-go-FV

'as soon as you bathe, we'll go' (ZT2009Elic146)

---

[15]Here, the initial *ka*- is glossed as DM, or discourse marker; this should not be taken as a final analysis.

This construction appears to treat the situation it refers to in one of two ways: either it is "punctual" (i.e. 'as soon as you've bathed'), or only the onset is referenced (i.e. 'as soon as you start bathing'). It does not seem to refer specifically to a situation-internal phase: As shown in (476), it does not mean 'while', and it cannot co-occur with *-ite* verbs focusing a situation-internal state, as shown in (477).

(476)   *kàmùchìsâmbà tàtúyì*

    ka-mu-chi-samb-a   ta-tu-y-i
    DM-2PL-PERS-bathe-FV NEG-1PL-go-FV

    (intended): 'while you're still bathing, we won't go' (ZT2009Elic146)

(477)   *kamuchitabite...*

    ka-mu-chi-tab-ite...
    DM-2PL-PERS-become.happy-STAT

    (intended): 'as soon as you're happy...' (ZT2009Elic146)

7.3.5.4   Continuative: SM (+ o) + infinitive

One final minor aspectual construction that may be noted briefly is the continuative, rarely attested, which appears to mean 'keep on' doing something. It also seems to have some deontic modal force.

(478)   *mokuliziza*

    moku-li-iziz-a
    2PL.INF-REFL-come.to.know.CAUS-FV

    'you must continue to study' (ZT2007Elic49)

With this form, the vowel of subject markers is replaced with *o*, except for 3sg (*a-*). Speakers varied as to whether 1sg (*ndi-*) was formed as *ndo-* or *nde-*.

7.4   Mood

Because this study focuses on the semantics and pragmatics of tense and aspect marking in Totela, this section gives only a very brief overview of modality in Totela.

7.4.1   Negation

As may be seen in the above sections, the negation marker is generally the leftmost verbal prefix and takes scope over some or all of the rest of the propositional content.

Negation marking may follow the infinitive prefix in infinitives (see 2.3.1.1 for discussion), and it also occurs optionally in a non-initial position in some situative and imperfective constructions, as shown in (479) and (480).

(479) a. *bàndìwààná nàndìtéénì kúlyà*

      ba-ndi-waan-a   na-ndi-<u>ta</u>-in-i   ku-li-a
      3PL-1SG-find-FV SIT-1SG-<u>NEG</u>-be-FV.NEG INF-eat-FV

      'they found me not having yet eaten' (ZT2009Elic78, repeated from (460))

   b. *ndakalaala, inywe natamwini kusika*

      nda-ka-laal-a,   inywe   na-<u>ta</u>-mu-in-i   ku-sik-a
      1SG.CMPL-PREHOD-sleep-FV 2PL.PRON SIT-<u>NEG</u>-2PL-be-FV.NEG INF-arrive-FV

      'I went to bed [yesterday] before you arrived' (lit: 'you not having arrived')
      (ZT2007Elic88, repeated from (461))

(480) *kàtá́bénì kútàlìkà*

     ka-<u>ta</u>-ba-in-i   ku-talik-a
     PREHOD.IPFV-<u>NEG</u>-3PL-be-FV.NEG INF-begin-FV

     'they hadn't started' (ZT2009Elic113)

The negative marker may also be used with a subjunctive-like vowel *te-*. In these cases, there seems to be an additional element of refusal or non-intention.

(481) a. *tàndílì*

      <u>ta</u>-ndi-li-i
      <u>NEG</u>-1SG-eat-FV.NEG

      'I don't eat / I won't eat' (ZT2009Elic36)

   b. *téndìlyê*

      <u>te</u>-ndi-li-e
      <u>NEG.SBJV</u>-1SG-eat-FV.SBJV

      'I won't eat / I refuse to eat' (ZT2009Elic36)

In the posthodiernal future, *ta-* appears with auxiliary *-li* 'be'

(482) *tàlíˈnándìyèmbèlè*

     <u>ta</u>-li   na-ndi-yembel-e
     <u>NEG</u>-be POSTHOD-1SG-herd-FV.SBJV

     'I won't herd' (ZT2009Elic53)

This auxiliary may also be used to mean 'isn't it the case that...?' It may be followed both by affirmatives (483) and negatives (484).

(483) *tàlí mwàyá kwàKàìwàlà?*

ta-li   mwa-y-a   kwa-Kaiwala
NEG-be 2PL.CMPL-go-FV CL17(LOC)-Kaiwala

'didn't you go to Kaiwala?' (ZT2009Elic148)[16]

(484) *tàlí tàmùnáyì kwàKàìwàlà?*

ta-li   ta-mu-na-y-i   kwa-Kaiwala
NEG-be NEG-2PL.CMPL-go-FV CL17(LOC)-Kaiwala

'isn't it the case that you didn't go to Kaiwala?'(ZT2009Elic149)[17]

Such a use is also possible with the posthodiernal future. In such cases, the verb is formed with *-la-* (485a), rather than as a subjunctive (485b).

(485) a. *tàlí ꜜnándìlàyà?*[18]
          ta-li   na-ndi-la-y-a?
          NEG-be POSTHOD-1SG-NONCMPL-go-FV

          'aren't I going?' (ZT2009Elic170)

       b. *tàlí ꜜnándìyê*
          ta-li   na-ndi-y-e
          NEG-be POSTHOD-1SG-NONCMPL-go-FV.SBJV

          'I won't go' (ZT2009Elic170)

7.4.2   Imperatives

Second-person singular imperatives are formed with the bare stem and a final *-a*. They surface with penultimate H tone, generally with plateauing. Monosyllabic stems are somewhat dispreferred in the imperative (hortative forms are typically used instead), but can still be formed.

(486) a. *wâ*
          u-a
          fall-FV.IMP

          'fall!'

---

[16]In response to this question, *ééɲ̀* 'yes' can mean either 'yes I did go' or 'yes, I didn't go'. In contrast, *á-à* 'no' can only negate the propositional content, i.e. 'no, I didn't go' but *not* 'no, I did go'.

[17]According to consultants, hese statements may be affirmed or negated by both *ééɲ̀* 'yes' and *á-à* 'no', followed by an explanatory statement, e.g. *ééɲ̀, twàyà* 'yes we went' or *ééɲ̀ tàtùnáyì* 'yes, we didn't go' (ZT2009Elic149). 'Yes' and 'no' both have the same default interpretation (affirming the negative statement in (484), but both can also be used to deny it.

[18]Pronunciation with a pause is also possible here, resulting in a falling tone on *-li* (*tàlî nándìlàyà*).

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b. *pâ*

   p-a

   give-FV.IMP

   'give!'

c. *zîîkà*

   ziik-a

   bury-FV.IMP

   'bury!'

d. *ñatawúlà*

   ñat-awul-a

   cut-ITER-FV.IMP

   'cut to pieces!'

Object markers may also be prefixed to imperative forms. In this case, subjunctive final vowel -*e* appears and the tone pattern changes (see appendix C) to an input H on the second root mora which, when it surfaces, appears on the first root mora.

(487) *mùzîîkè*

   mu-ziik-e

   3SG-bury-FV.SBJV

   'bury him!'

Second-person plural (used for both plural audiences and as a sign of respect with single persons) imperatives are formed in the same way as are singular imperatives, but final -*a* is replaced with plural final -*eni*. The H tone surfaces on the syllable before -*eni*.

(488) a. *wênì*

   u-eni

   fall-2PL.IMP

   'fall!' (2pl)

b. *ñatawúlènì*

   ñat-awul-eni

   cut-ITER-2PL.IMP

   'cut to pieces!' (2pl)

Imperatives are negated periphrastically, e.g. with the verb -*leka* 'cease', followed by the infinitive.

7.4.3 Hortatives and subjunctives

Hortative and subjunctive forms ('may he X'; 'let him X', 'that he do X' etc.) consist of a subject marker, the verb stem along with any object prefixes and, possibly, the distal -*ka*- prefix, and a subjunctive final vowel -*e*. A H tone surfaces on the penult, typically with plateauing. The 2pl hortative form, as in (489a), is used as a polite imperative, and occurs more frequently than the bare 2pl imperative with -*eni* shown in (488a).

(489)   a.   *muwê*

mu-u-e
2PL-fall-FV.SBJV

'fall!' (2pl)

b.   *tunyamukilílè*

tu-nyamuk-ilil-e
1PL-set.off-INTENS-FV.SBJV

'let's all set off!'

Example (490) shows a 2PL hortative form with both distal -*ka*- and 3SG object marker -*mu*-.

(490)   *mùkàmúbònè*

mu-ka-mu-bon-e
2PL-DIST-3SG-see-FV

'go see him!'

The 2PL suffix is also allowed in the hortative/subjunctive:

(491)   *Mwízèní kùnò! Mwízè mùsúwè...*

mu-iz-eni   kuno!   mu-iz-e   mu-suw-e...
2PL-come-2PL   CL17.LOC(DEM)   2PL-come-FV.SBJV   2PL-hear-FV.SBJV

'Come over here! **Come** [and] **hear**...'

Examples (492) and (493), both taken from dialogue in narratives, show some other typical contexts in which hortatives and subjunctives are used.

(492)   *Bàníchè bàníchè tòntólènì bónènì bà-sókwè bàsìkà **twìjáyè!***

baniche   baniche   tontol-eni   bon-eni   basokwe   ba-sik-a
CL2child   CL2.child   quiet-FV.IMP   see-FV.IMP   CL2A-monkey   CL2A-arrive-FV
tu-ijay-e
1PL-kill-FV.SBJV

'Children, children, be quiet, look, Monkey has arrived, **let's kill** [**him**]!' (ZT2009-NarrA4.CN.33, *Chiza*)

(493) *Ínwè mwìná òkùlìmà-lìmá àwò ndípènì mwáànênù **ndìkàlélè**.*

inwe   mu-ina   oku-lim-a-lim-a   awo   ndi-peni
2PL.PRON 2PL-have INF-cultivate-FV-CULTIVATE-FV CL16.DEM 1SG-GIVE.PL.IMP

mwaanenu   **ndi-ka-lel-e.**   **angu ndi-<u>la</u>-bool-a**
child.2PL(POSS) 1SG-DIST-amuse-fv.sbjv.

'Hey you there cultivating away, give me your child **that I may go amuse it**. '
(ZT2009NarrA19.GS.12-13, *Kalima Mawundu*)

7.4.4 Conditionals and counterfactuals

Conditionals are formed with conditional word *ésì* (sometimes *ásì*) 'if, when', also used in other temporal clauses . Both the protases and apodoses of conditionals, as well as counterfactuals, may occur with a variety of tense and aspect markers. Example (494) shows a present habitual / near future conditional. The protasis takes subjunctive final vowel *-e* in present and future contexts.

(494) *ésì tùlyé àhúlù, tùlékùtà*

esi   tu-li-e   ahulu tu-la-ikut-a
COND 1PL-eat-FV a.lot   1PL-NONCMPL-become.full-FV

'if we eat a lot, we('ll) get full' (ZT2009Elic40)

Further examples of conditional clauses may be found throughout this study.

Counterfactual clauses are introduced by counterfactual *kámbè*, a word also used as a counterfactual in Lozi. *Kámbè* may also introduce the apodosis, but it is not obligatory and is quite frequently excluded. The verb in the apodosis is frequently marked by a counterfactual marker *na-*. (495) and (496) show this form for counterfactual hodiernal situations (past and non-past) and with prehodiernal marking, respectively.

(495) *kámbè àmênzi àtóntwèlè ná ꜜtwánwà*

kambe   amenzi   a-tontwele   na-twa-nu-a
COUNTER CL6.WATER CL6-cool.STAT COUNTER-1PL.CMPL-drink-FV

'if the water were cool, we would have drunk / we would drink' (ZT2009Elic40)

(496) *. . . nátwàkánwà*

na-twa-ka-nu-a
COUNTER-1PL.CMPL-DIST-drink-FV

'. . . we would have drunk' (yesterday or before) (ZT2009Elic40)

In general, counterfactual completive forms are are not temporally specified with respect to perspective time, and may be interpreted as either counterfactual past (e.g. 'we would have') or present/future (e.g. 'we would'). This is true even when the imagined situation is set in the posthodiernal future, as in (497).

(497)   *kámbè ìjìlò àlìkèzítè, nátwàbàndìkà nàyê*

kambe   ijilo   a-li-ka-iz-ite,
COUNTER tomorrow 3SG-PRES.STAT-DIST-come-STAT
na-twa-bandik-a   na=ye
COUNTER-1PL.CMPL-talk-FV COM=3SG.PRON

'if he were coming tomorrow, we'd talk with him' (ZT2009Elic40)

The apodosis may lack counterfactual *na-* marking; in these cases, the temporal interpretation seems to be as would be expected for the respective tense/aspect marking. Some examples without counterfactual *na-* are given in (498) and (499). [19]

(498)   *kámbè twályà àhúlù, kámbè {twékùtà} / {ná᷄twékùtà}*

kambe   twa-li-a   ahulu kambe   {twa-ikut-a}   /
COUNTER 1PL.CMPL-eat-FV a.lot   COUNTER {1PL.CMPL-become.full-FV} /
{na-twa-ikut-a}
{COUNTER-1PL.CMPL-become.full-FV}

'if we had eaten a lot, we would be full' (ZT2009Elic40)

(499)   *. . . kámbè tàndììzí èchìTòtèlà*

. . . kambe   ta-ndi-izi   echiTotela
. . . COUNTER NEG-1SG-come.to.know.STAT CL7.Totela

'I wouldn't know Totela' (ZT2009Elic40)[20]

Examples (500)-(502) give more examples of counterfactual constructions with affirmative and negative protases and apodoses.

(500)   *kámbè tàtùtàbìtê, (kámbè) tàlí ˈnátwèèzà*

kambe   ta-tu-tab-ite,   (kambe)   ta-li
COUNTER NEG-1PL-become.happy-STAT (COUNTER) NEG-be
na-twa-iz-a
COUNTER-1PL.CMPL-come-FV

'if we weren't happy, we wouldn't have come' (ZT2009Elic40)

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[19]More data are needed on this issue.

[20]I do not have any examples of -*ite* forms with counterfactual *na-*, which appears to co-occur only with completive -*a-* marking.

(501) *kámbè bàlìtàbìtè, (kámbè) tàlí ꜜnábànyèlwà*

kambe   ba-li-tab-ite   (kambe)   ta-li
COUNTER 3PL-PRES.STAT-become.happy-STAT (COUNTER) NEG-be
na-ba-nyel-w-a
COUNTER-3PL-annoy-PASS-FV

'if they were happy they wouldn't be annoyed' (ZT2009Elic40)

(502) *kámbè tàndìnàkêzà kùnò, nándàkàyáyì?*

kambe   ta-ndi-na-ka-iz-a   kuno
COUNTER NEG-1SG-PST-PREHOD-come-FV CL17(LOC).DEM
na-nda-ka-i-a=i?
COUNTER-1SG.CMPL-PREHOD-go-FV=where

'if I hadn't come here, where would I have gone?' (ZT2009Elic40)

The counterfactual *na-* marker seems likely, both formally (segmentally and tonally) and semantically, to be related with the word *náà*, which means 'if' or 'whether', when the facts are not fully known, as illustrated with several situations and unknowns in (503). Various possibilities after *mbwîtà náà. . .* 'who knows if. . . ' are indicated in individual sets of brackets.

(503) *mbwîtà **náà** {ìlásòkà} / {yásòkà} / {bàSisháù bàyèndà} {mbàSìsháù báìlyâ} {ndísùnù} . . .*

mbwita **naa**   {i-la-sok-a}   / {ya-sok-a}   /
INTERJ if/whether {CL5-NONCMPL-rain-FV} / {CL5.CMPL-rain-FV} /
{ba-Sishau   ba-yend-a}   / {mba-Sishau   ba-i-li-a}   /
{CL2A-Sishau CL2A-walk-FV} / {COP.CL2A-Sishau CL2A-CL9-eat-FV.RC} /
{ndí-sùnù}. . .
{COP.CL5-today}

'who knows whether {it's going to rain} / {it rained} / {Mr .Sishau is going} / {it was Mr. Sishau who ate it}' (ZT2009Elic84)

7.5   Other periphrastic TAM constructions

This section briefly outlines and exemplifies a few other periphrastic constructions with TAM-related meanings used in Totela.

7.5.1   Since

The meaning of 'since situation X began. . . ' is conveyed with a construction using an auxiliary with a completive form and *-li* 'be', followed by an infinitive. (504) and (505) give examples.

(504) *buti muponena **twali kumisiya** momo mumunzi wenu?*

buti mu-pon-en-a **twa-li** **ku-mi-siy-a** momo
CL14.manner 2PL-live-APPL-FV **1PL.CMPL-be** INF-2PL-leave-FV CL18(LOC).DCM
mu-munzi wenu?
CL18(LOC)-CL3.village CL3.2PL(POSS)

'how have you been **since we left you** here in your village?' (ZT2007Narr15.TL, *Lishibi*)

(505) ***ndali kwingila muñanda**, tandinamubona*

nda-li **ku-ingil-a** **mu-ñanda**, ta-ndi-na-mu-bon-a
1SG.CMPL-BE INF-enter-FV CL18(LOC)-CL9.house NEG-1SG-PST-3SG-see-FV

'**Since I came into the house**, I have not seen him' (ZT2007Elic57)

7.5.2 Almost, nearly, about to

Situations that 'almost' obtained, but did not obtain in the actual world, are expressed with a completive form with auxiliary *-ti* 'say', also appearing in complementizer *kuti* 'that', followed by a subjunctive verb form. These constructions are used to describe situations that were on the point of obtaining, with or without intention on the part of the subject. The second clause in examples (506)-(508) is optional.

(506) ***ndati ndizubuke** kono ndakangwa*

nda-ti **ndi-zubuk-e** kono nda-kang-w-a
1SG.CMPL-say 1SG-cross-FV.SBJV but 1SG.CMPL-fail-PASS-FV

'**I almost crossed / was intending to cross** but I was unable' (ZT2007Elic59)

Constructions referring to situations that 'nearly' obtained in the prehodiernal past are marked with prehodiernal *-ka-* on the auxiliary.

(507) ***ndakati ndichite** kono sinakachichita*

nda-ka-ti **ndi-chit-e** kono si-na-ka-chi-chit-a
1SG.CMPL-PREHOD-say 1SG-do-FV.SBJV but NEG.1SG-PST-PREHOD-CL7-do-FV

'**I almost did** (or 'I could have done [it]'), but I didn't do it' (ZT2007Elic59)

(508) ***bakati bafwe** baba (ndiMulimu akatusa)*

ba-ka-ti **ba-fu-e** baba (ndi-Mulimu
3PL-PREHOD-say 3PL-die-FV 3PL.DEM (COP.CL1A-God
a-ka-tus-a)
CL1A-PREHOD-help-FV.RC)

'**they almost died** (it's God who helped)' (ZT2007Elic136)

An identical construction with *-saka* 'want' instead of *-ti* is also used with the same meaning.

These construction is apparently only used for situations that nearly obtained in the past (ZT2009Elic66) and *nditi* followed by a subjunctive is deemed ungrammatical. Speakers tend to use adverbials such as 'soon' or 'close to', or discourse markers *se-* or *nde-* to indicate that situations are (or will be) on the point of obtaining.

7.5.3 Not yet

'Not yet' is expressed with a negative auxiliary with what appears to be *-ina* 'be (located), have',[21] followed by an infinitive, as in (509).

(509) *tàndínì kúkàlìsà*

  ta-ndi-ini   ku-kalis-a
  NEG-1SG-have.NEG INF-begin-FV

  'I haven't started (yet)' (ZT2009Elic32)

A pluperfect form of this construction is also available, using prehodiernal imperfective *ka-*, shown in (510).

(510) *takandini kuyenda*

  ta-ka-ndi-ini   ku-yend-a
  NEG-PREHOD.IPFV-1SG-have.NEG   INF-walk-FV

  'I hadn't walked' (ZT2007Elic56)

7.5.4 Adverbial *bu-*

Class 14 *bu-*, used mostly with abstract nouns, also creates adverbial verbs describing a manner or repeated action. Verbs nominalized with augmentless *bu-* surface with penultimate H. These forms are preceded by a verb form with *-ya* 'go'. Although some sort of motion is typically implied, the adverbial does not necessarily describe the manner of the motion, but rather a repeated or characteristic activity. The *-ya* form sometimes surfaces without an initial glide, as in (511).Examples (511)-(513) are taken from narratives, where the construction frequently appears.

(511) *bà(y)á <u>bùyîmbà</u>*

  ba-(i)-a   <u>bu</u>-yimb-a
  2PL.CMPL-go-FV   <u>CL14</u>-sing-FV

  'they went singing' (ZT2009NarrA15.VB.62, *Kañandu*)

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[21]In negation of possession, the final vowel is *-a* and no H tone surfaces, e.g. *tàndìnà* 'I don't have'.

(512) **Kùyá bùmínà** àbántù. **Kùyá bùmínà kùyá bùmínà.**

ku-y-a **bu-min-a** abantu. **ku-y-a** **bu-min-a**
NARR-go-FV <u>CL14</u>-swallow-FV CL2.people NARR-go-FV textscc<u>cl14</u>-swallow-FV
ku-y-a **bu-min-a**.
NARR-go-FV <u>CL14</u>-swallow-FV

'[The ogre] **went around swallowing people**. [He] **went around swallowing and swallowing** [people]' (ZT2009NarrA12.GS.3, *Sedimwe*)

(513) *kùsèlèlá kùmùnzì **àkàìlé bùlílà** ...nèmítwì yêyò*

ku-selel-a ku-munzi **a-ka-ile** **bu-lil-a**
NARR-go.down.to-FV CL17(LOC)-CL3.village 3SG-DIST-go.STAT <u>CL14</u>-cry-FV
na=emitwi yeyo
COM=CL4.head CL4.DEM

'[then she] went back down to the village, there **she goes on her way crying** with that poor head [of her murdered child]' ZT2009NarrA19.GS.66, *Kalima Mawundu*)

That no subject volitionality is required is shown in (514), an uterance given in explanation of beans found scattered on the path from the fields to the village. The speaker's son had carried them in big baskets the day before.

(514) *kàzìyá bùwâ*

ka-zi-y-a <u>bu</u>-u-a
PREHOD.IPFV-CL10-go-FV CL14-fall-FV

'they [the beans] were falling [from the baskets as he went along]' (ZT2009Elic120)

Like infinitives, *bu*-prefixed verb forms may take distal -*ka*- marking (515) and object markers (516).

(515) *bàkàyá bù**kà**yîmbà*

ba-ka-y-a <u>bu</u>-**ka**-yimb-a
3PL-DIST-go-FV CL14-DIST-sing-FV

'they went along singing' (elsewhere than here) (ZT2009Elic137)

(516) *bàkàyá bù**mù**tòbélà*

ba-ka-y-a <u>bu</u>-**mu**-tobel-a
3PL-DIST-go-FV CL14-3SG-seek-FV

'they went looking for him' (ZT2009Elic137)

7.6 Narrative morphology

In extended discourse in Totela – basically, anything greater than one clause – speakers may employ verb forms uninflected for person, tense, or aspect.[22] Nurse (2008) describes what he calls narrative "tense" as follows:

> The time of the situation is first established, either explicitly in the first verb in a string, or implicitly, because the participants know the context, which therefore doesn't need mentioning. All following verbs in the sequence are then marked by a special narrative marker, which replaces the tense marker appropriate to the time established by the first verb... [It is] most frequent in past narratives, less frequent in timeless events... [and] occurs across sentences and utterances, in which case the context most often crosses sentence boundaries and characterizes a long utterance (Nurse 2008:120)

Nurse (2008:121) also notes that a distinction may be possible between "consecutive" or "narrative" marking, on the one hand, which occurs with identical subjects, and "subsecutive" or "sequential" marking, on the other hand, where the subjects are different.

Cover (2010:106-118) discusses narrative morphology in Badiaranke, an Atlantic Niger-Congo language, which she shows to be neither a tense nor a marker of situations that are necessarily consecutive.

Based on definitions of "tense" noted in this study, e.g. the relationship between perspective time and topic time (similar to Klein 1994), or the relationship between temporal domains (as in Botne & Kershner 2008), Totela narrative marking should also not be considered a tense. I therefore refer to it, following Cover (2010), as narrative morphology. I have not found clear examples of narrative morphology on non-sequential situations, so it may be taken as generally describing sequential events.

Totela narrative morphology consists of an augmentless infinitive form, as in (517):

(517) *Kúkwààtà k̲ù̲nènsà k̲ù̲nènsà.*

ku-kwaat-a   ku-nens-a   ku-nens-a
NARR-grab-FV NARR-beat-FV NARR-beat-FV

'[then she] caught [him and] beat [him and] beat [him]' (ZT2009NarrA15.VB.41, *Kañandu*)

Narrative forms may also appear with proclitic *na=* 'and, with'; I treat the resulting form *noku-*, which appears *with* the infinitive augment *o-*, as another possibility for narrative morphology.

(518) *Bésì **n̲ò̲k̲ú̲sèsà** yùmwí (ò)mwánàkázì*

besi   **na=oku-ses-a**   yumwi   (o)mwanakazi
CL2A.father.3SG COM=NARR-marry CL1.other CL1.woman

'And his father **married** another woman' (ZT2009NarrA15.VB.6, *Kañandu*)

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[22]In Namibian Totela and many other languages, narrative forms do take person subject markers.

Sometimes, when distal *-ka-* occurs with narrative morphology, *nokuka-* forms are shortened to *noka-*:

(519) *nàyê* **nòkàbòòlàkô**

na-ye   **na=o(ku)-ka-bool-a-ko**
COM=3SG.PRON COM=NARR-DIST-return-FV-CL17(LOC)

'and he also **returned**' (ZT2009Narr37.MM.75, *Bankanga*)

I have not yet found systematic differences between *ku-* and *noku-* narrative forms, although *-noku-* forms are much more common immediately after overt subject reference than are *ku-* forms. However, even this is not universal, as is shown in (520), where *kútwà-twà* 'to pound here and there' occurs without comitative *na=* immediately after the subject (the little wife) is mentioned.

Several other comments quoted above from Nurse (2008) require further scrutiny as they relate to Totela NM. First, as the long sequence of narrative marking in (520) shows, narrative morphology may carry across subjects.

(520) *Aa!* **Nòkwíngìlà.** **Kwìndá** ˈínsìmà **kúlyà kúlyà kúlyà kùmànà.** *Aa! Nàbó àbànînî nàbô* **kútwà-twà.** **Kúhàlìkà-hàlìká** *ìnkùkù.* **Kútàyà-tàyá** ˈínsìmà. *Ii.* **Nòkútwààlà. . .**

aa!   **na=oku**-ingil-a   ku-ind-a   insima   ku-li-a   ku-li-a
INTERJ COM=NARR-enter-FV NARR-take-FV CL9.nsima NARR-eat-FV NARR-eat-FV

ku-li-a   ku-man-a.   nabo   abanini   nabo
NARR-eat-FV NARR-finish-FV COM.CL2 CL2.small COM.CL2

ku-tu-a-tu-a.   ku-halik-a-halik-a   inkuku
NARR-pound-FV-pound-FV NARR-roast-FV-roast-FV CL9.chicken

ku-tay-a-tay-a   insima.   ii.
NARR-spoon.out-FV-spoon.out-FV CL9.mealie.pap INTERJ

na=oku-twaal-a. . .
COM=NARR-take.to-FV. . .

'Aa! And she **went in** [bringing him porridge]. He **took** the porridge and **ate** and **ate** and **ate** and **finished** [it up]. Aa! And that little [wife], she **pounded** and **pounded** [flour]. She **roasted** a chicken and **spooned out portions** of porridge. Yes. Then she **took** [it to him]. . . .' (ZT2009NarrA64.GS.23-30, *Nyawi-Nyawi*)

Second, it is uncommon in narratives for the time frame to be established implicitly. Instead, all traditional narratives and narratives of personal experience in my corpus begin with at least one clause with a verb specified for tense and aspect. I do have an example of procedural discourse beginning with a temporal narrative form *kumana. . .* '[when you] finish. . .' (ZT2007Narr27.VM).

Perhaps most importantly, not all forms referring to consecutive situations are marked with narrative morphology. Throughout narratives, speakers switch between inflected forms and forms with narrative morphology, as illustrated briefly in (521).

(521) *Aa!* **Nòkwíbòòzà**[NARR] **kwìzà**[NARR] **kúlyà**[NARR] *òmwîìnì.* **Kùmànà**[NARR] *kulya*
       bwáchà[INFL] **bàyá**[INFL] *kùmpìlì*

aa!   na=oku-i-booz-a   ku-iz-a   ku-li-a   omwiini.
INTERJ   COM=NARR-CL9-return.CAUS-FV NARR-come-FV NARR-eat-fv CL1.self

ku-man-a   ku-li-a   bwa-ch-a   ba-y-a   ku-mpili.
NARR-finish-FV INF-eat-FV CL14.CMPL-dawn-FV 3PL-go-fv CL17(LOC)-field

'Aa! Then she **returned it**[NARR], she **came**[NARR] and **ate**[NARR] it herself. She
finished[NARR] eating. [When] it **dawned**[INFL], they **went**[INFL] to the fields.'

Section 7.6.1 discusses some factors predictive of inflection instead of narrative morphology on verbs in narratives.

7.6.1   Predicting inflection in narratives

Nurse (2008:120) notes that sequences of narrative markers "can be suspended and then deliberately reintroduced by the speaker to stress continuity". Fleischman (1990) further observes that tense switching within narrative may have a variety of functions, including marking shifts in "subject and/or of discourse topic" (200), dividing a narrative "into spans centered around a setting or macro-event" (201), helping with narrative "pace" (210-211), and shifting point of view (216ff).

I carried out logistic regression on a data set of 547 verbs from nine narratives[23] to find significant predictors of inflection vs. narrative morphology.

Most likely to be inflected were verbs in non-sequential clauses (as expected), the first verb in an episode, and the last verb before a song. I argue in chapters 3 and 4 that both of the latter trends work to establish narrative structure and continuity, as predicted by Nurse (2008:120). Less likely to be inflected are the first verb after a song, verbs that are not at episode boundaries, verbs in common collocations representing rapid or near-instantaneous sequences of events, e.g. *kwìzà kùsìkà kùwàànà* 'to come and arrive and discover' (these three predictors also play a role in establishing continuity; see also 4.4.2 for a discussion of the placement of verbs with respect to songs), and verbs bi- and trivalent verbs.

In general, then, inflection may be said to mark episode boundaries, while narrative marking within episodes may help maintain continuity. Inflection marking may also slow the pace of narrative, as evidenced by its being dispreferred in common collocations. The reason for a dispreference for inflectional marking with higher-valency verbs is unclear; however, at least two possibly influential factors may be considered. First, the verb *-li* 'be', which appears frequently in narratives, is defective and cannot appear in infinitive form, but is always inflected. The second factor is far more speculative: it may be that higher-valency verbs have an inherently higher processing load, due to the need for enhanced character and referent tracking, and any additional load from tense and aspect marking may be therefore avoided.

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[23]Quoted speech, as well as other uninflected verbs (which may be distinguished syntactically from narrative forms), were removed from a larger data set of 1000+ verbs to produce the 547 verbs used for analysis.

More likely to be inflected	Less likely to be inflected
Last before song	First after song
Restricted clauses	Narrative clauses
Not in verb sequence	In verb sequence
First in episode	Not first in episode
Lower valency	Higher valency

Table 7.4: Factors predicting likelihood of inflection

Not significant in the model are factors such as character reference, including the relative location of the last overt reference to the subject, whether the subject is the last mentioned referent, whether the character has changed, etc.; theta role structure; and syntactic factors such as word order (see also Crane 2011).

More specific discussion of the uses of particular tense and aspect markers in narrative structuring is given in the relevant chapters. For now, it may be noted that tense and aspect marking correlates highly significantly with narrative structuring roles.

7.7 Summary

Table 7.5 lists the forms and constructions discussed in this chapter, and in the study as a whole.

Note that meanings are approximate; the reader is referred to the preceding sections (as well as the relevant chapters) for more precise information. When appropriate, I have given forms using the 1SG subject marker *ndi-* and the durative verb *-nenga*. Forms that may be marginal, or that were only elicited in a few instances, are noted as such with *(marg?)*.

The remainder of this study discusses the semantics and pragmatics of particular TAM markers in Totela, giving special attention to their information structuring uses, which, I argue, are basic to their nature. The markers discussed are completive *-a-*, its "non-completive" counterparts *-la-* and *-Ø-*, dissociative markers *-ka-* and *na-*, and stativizing *-ite*. These forms were selected because they are commonly used and can be clearly shown to play strong narrative structuring roles; detailed investigation of the other forms and constructions noted in this would doubtless yield enlightening results, as well.

Description	Form	Example		Loc
PREHODIERNAL DISSOCIATIVE	*-ka-*	ndàkànèngà	'I danced' (yesterday / before)	5
COMPLETIVE	*-a-*	ndànèngà	'I danced' (today)	3
NON-COMPLETIVE	*-la-/-Ø-*	ndìlànèngà	'I am dancing/will dance' (today)	4
POSTHODIERNAL DISSOCIATIVE	*na-*	nándìlànèngà	'I will dance' (tomorrow / after)	5
PAST	*-na-*	ndìnánêngà	'I was dancing'	7.2.1
PREHODIERNAL IMPERFECTIVE	*ka-*	kàndìnêngà	'I was dancing' (yesterday / before)	7.3.1
PRESENT PROGRESSIVE	*-kweesi* + infinitive	ndìlíkwèèsí òkùnèngà	'I am dancing'	7.3.2.1
PRESENT PROGRESSIVE	*-kweesi* + *-la-*	ndìlíkwèèsí ndìlànèngà	'I am dancing'	7.3.2.1
PRESENT PROGRESSIVE	*-ina* + infinitive	ndìná òkúnèngà	'I am dancing'	7.3.2.1
PAST PROGRESSIVE	*-na-/ ka-*	See past *-na-* & prehod. ipfv. *-ka-*		7.3.2.2
FUTURE PROGRESSIVE	SM-*e* + infinitive	ndé kùnèngà	'I will be dancing' *(marg?)*	7.3.2.3
HABITUAL	*-ang-*	ndìlànèngàngà	'I dance (regularly)'	7.3.3
STATIVE	*-li-* +-*ite*	ndìlílìbììkìtè	'I am hidden'	6
SITUATIVE	*na-*	. . . nàndìnêngà	'. . . me dancing'	7.3.5.2
PERSISTIVE	*-chi-*	ndìchìnêngà	'I'm still dancing / I'll still dance'	7.3.5.3
CONTINUATIVE	SM-inf.	ndokunenga	'I must continue to dance' *(marg?)*	7.3.5.4
NEGATION	*ta-*	tàndìnêngà	'I don't/won't dance'	7.4.1
2SG IMPERATIVE	bare stem	nêngà!	'dance!'	7.4.2
2PL IMPERATIVE	stem-*eni*	nêngènì!	'dance!'	7.4.2
HORTATIVE/ SUBJUNCTIVE	*-e*	ndìnêngè!	'may I dance!'	7.4.3
COUNTERFACTUAL	*na*-SM-*a*	nándànèngà	'I would have danced'	7.4.4
'SINCE'	SM-*ali* + infinitive	ndàlì kùnèngà	'since I danced/started dancing'	7.5.1
'ALMOST'	SM-*ati* + sbjv	ndàtì ndìnêngè	'I almost danced / was about to dance'	7.5.2
'NOT YET'	neg-ina + infinitive	tàndínì kùnèngà	'I haven't danced (yet)'	7.5.3
ADVERBIAL	*-ya bu-*	ndìyá b'unêngà	'I go along dancing'	7.5.4
NARRATIVE	*noku-*	nòkùnèngà	'then [I] dance'	7.6

Table 7.5: Summary of TAM expressions described in this study

Chapter 8

Conclusion and future research directions

8.1 Conclusion

This study has explored and analyzed in detail the semantics and pragmatics of five tense/ aspect markers in Totela: *-a-*, analyzed as a marker of nuclear non-completion; *-la-* and its unmarked counterpart, which, due to the absence of *-a-*, indicate nuclear *non*-completion and hence are used with present and future situations; prehodiernal *-ka-*, a temporal dissociative marker that conspires with *-a-* to arrive at prehodiernal perfective readings; posthodiernal *na-*, a temporal dissociative marker oriented towards the future; and *-ite*, a stativizer that picks out the state it represents as associated with the subject according to relevance to answering the question under discussion in the current discourse.

Each of these markers has a clear, and fairly simple, temporal role: *-a-* and *-la-* situate perspective time with respect to the completion, or termination, of the situation nucleus, which coincides with the end of the situation itself for durative verbs and the "point" of state change with change-of-state verbs. Dissociative *-ka-* and *na-* mark the time span referred to as apart from the here-and-now of perspective time; further perspective times may then be established in the dissociated domains invoked. Use of *-ite* selects a phase from the situation's event structure, either pre- or post-nucleus, and presents it as a steady state associated with the subject.

Still, the temporal roles do not determine the use or interpretation of any of the markers. The location of perspective time after nuclear completion asserted by use of *-a-* is still underdetermined: it may be either within, or fully after, a result coda phase. Likewise, *-a-*'s absence, sometimes marked with *-la-*, indicates that nuclear completion has not yet obtained, but does not determine whether the situation is underway at perspective time. Dissociative markers are temporally determinative in that they cannot be used with hodiernal situations,[1] but they are not always used when situations obtain in non-hodiernal time frames. Also,

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[1]Prehodiernal imperfective *ka-* may be used with hodiernal states in a small subset of examples; see 7.2.1 and 7.3.1 for further details.

they are similar to markers of distal dissociation and dissociation from reality. The -*ite* suffix is perhaps least temporally determined of the markers discussed here, since it does not even locate its state in a fixed location with respect to nuclear completion.

Thus, pragmatic knowledge is required for the use and interpretation of each of these markers. I have argued in this study that the temporal underspecification of the markers is indicative that a primary role – that is, a basic part of their ontology – is the structuring of information in discourse.

Information-structuring functions may be seen in the use of tense and aspect markers in narrative. Dissociative -*ka*- is used to open and close narrations, effectively wrapping the story in a dissociating cover and indicate that it takes place in a different time and reality from that of the present telling. Within narratives, completive -*a*- and its non-completive counterparts make the internal structure of the narrative clear: the marker of completion occurs at episode boundaries, and -*la*- in places where expression of a boundary is explicitly avoided. -*la*- also serves to shift perspective between the world of the speaker and the world of the narrative and its participants. These functions, readily apparent in narrative, are also used in everyday discourse as speakers structure their utterances to shape addressees' perceptions of the world. Logistic regression on narrative verbs confirms these results, lending further weight to the case for the primacy of information structure in tense and aspect marking.

Information-structuring functions are perhaps most clearly evident with stativizing -*ite*, which is interpreted according to which phase would create a state most relevant for answering the immediate, most salient question under discussion in the discourse world at the time of utterance. The relevance component, which I have argued is a presupposition, forces addressee interpretation of the utterance as relevant to the current discourse, and thus can be used to shape the topic and direction of conversation.

Totela is not extraordinary in the discourse-structuring nature of its tense and aspect system. As argued by Hopper (1979a,b, 1982), and as demonstrated at length by Fleischman (1990) and others, tense and aspect play a major role in structuring narratives and discourse in general. The results of this study of Totela, and of studies like it in other Bantu languages (e.g. Seidel 2008), suggest that the tense/aspect systems of other languages would be better understood if studied from a more holistic perspective. Such studies will, I believe, lead to a more accurate view of the nature of tense and aspect in general, which have proved among the most difficult facets of language to analyze and characterize.

Beyond the specific results of the study, elicitation and analysis procedures have potential to contribute to the development of a methodology for examining tense and aspect systems in underdocumented languages. Augmented knowledge of the use of tense and aspect will allow for a more comprehensive understanding of human perception of time, space, and reality, and the linguistic expression of each. Cross-linguistic comparison also allows for increased understanding both of historical pathways for tense and aspect marking, and the role played by pragmatics in their grammaticalization, and of the genetic relationships of languages in an important and understudied area of Africa.

8.2 Directions for future research

While it seems likely that tense and aspect is basically information structuring in narrative, the contrasts salient in particular languages may be expected to vary widely. The investigations of Totela tense and aspect markers in this study suggest that Totela privileges at least the notions of nuclear completion, the hodiernal domain as the here-and-now reality, and relevance. The importance of nuclear completion is likely related to the prevalence of the durative/change-of-state contrast found in many Bantu languages. Cross-linguistic investigation of these and similar contrasts will no doubt prove valuable, as will detailed investigation of other tense, aspect, and mood markers in Totela with information structure in mind.

The statistical investigation of tense and aspect marking in Totela narratives (see 1.4.2 and 7.6.1) has shown that quantitative analysis of tense and aspect use in narratives is feasible and returns significant results. This methodology can be further developed and expanded and may be a means of valuable and more standardized cross-linguistic comparison of discourse-structuring functions of tense and aspect marking, which may result in more robust generalizations. Within Totela, the method can be applied to predicting the use of specific markers within specific contexts.

This study has focused largely on narrative uses of tense and aspect marking. Future research calls for the expansion to study other genres, especially conversational data, which was used throughout this study but was not the main data source. An additional goal for future research is the finer classification of Totela's system of *Aktionsart*, or situation type, to see what particular interactions more specific classes of verbs may have with various markers of grammatical aspect. It seems likely from observed interactions, and based on findings in previous studies (e.g. Kershner 2002; Seidel 2008) that category membership is highly fluid; understanding this fluidity, how it arises, and what its effects are, will prove valuable in understanding the interrelationship of lexical aspect, grammatical aspect, and discourse context. Also, connections with modality have been suggested for several tense/aspect categories, most particularly those analyzed as indicating temporal dissociation. Further exploration of the interplay between tense, aspect, and modality – categories that may be separated in an idealized system but are inextricable in real language – will certainly yield new insights.

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Appendix A

Definitions

This appendix gives brief explanations of some terms used throughout the study. For further information about terminology as it is commonly employed in studies of tense and aspect in Bantu, see Rose *et al.* (2002) and Nurse (2008:308-318).

Abstract (following Labov & Waletzky 1967; Labov 2001): in narrative, a brief summary or introductory statement to introduce a narrative into discourse

Action Used to refer to narrative events (non-stative eventualities).

Anterior the form – typically described as an "aspect", but sometimes also analyzed as a tense or as a combination of tense and aspect (e.g. Klein 1994) – that indicates, roughly speaking, a past situation with current relevance. I favor the term anterior in discussions of Bantu languages, both to follow the general conventions of the field (as in e.g. Nurse 2008; Rose *et al.* 2002) and to avoid confusion with perfective aspect. Other common terms in the literature: PERFECT. Totela employs a variety of forms to express common anterior/perfect functions.

Aspect (following Botne & Kershner 2008:171): aspect picks out a phase of a situation "as the focal frame for viewing the event"

Change-Of-State (following Seidel 2008): situation type category characterizing situations that depict entry into a state; the nature of the change (gradual, instantaneous, clear terminal transition point, etc.) Also referred to as INCHOATIVE, which Botne & Kershner (2000:165) define as situation types that express "a change of condition or location of the experiencer or patient", including "a change or transition from one state to another".[1]

Coda (following Labov & Waletzky 1967; Labov 2001): "termination of the narrative by returning the time frame to the present" (Labov 2001:65)

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[1]Different authors use slightly different criteria for determining membership in the change-of-state situation type class. Information about my categorization is given in section 1.3.2.

Common Ground the set of propositions accepted by all interlocutors

Context Set (following Roberts 1998): the set of worlds in which the COMMON GROUND – the set of propositions accepted by all interlocutors – holds

D-Domain (following Botne & Kershner 2008:153): a dissociative, distant cognitive world, marking "relations of non-inclusion" (in contrast to the P-DOMAIN)

Discourse Topic (following Roberts 1998): the set of propositions constituting the IMMEDI-ATE QUESTION UNDER DISCUSSION in a discourse, aimed at answering particular questions to reduce the CONTEXT SET

Dissociative Remoteness (following Botne & Kershner 2008:211): a remoteness distinction "imbued by projecting an event into a D-domain" rather than marking fixed temporal distinctions within a (P- or D-) domain (i.e. METRICAL REMOTENESS).

Durative (following Seidel 2008): situation type category characterizing situations (both extended and instantaneous) that do not involve a change of state

Episode A scene within a larger narrative consisting of a sequence of related events, usually involving the same character(s). For my analysis, narratives are divided into episodes, which are further divided into sub-parts (beginning, middle, and end).

Event a non-stative, non-change-of-state situation; Vendler's (1957) activities, accomplishments, and achievements

Event Structure used to describe the possible decomposition of a situation into distinct subparts; the decompositional possibilities are used to determine SITUATION TYPE

Generic Used as a cover term for both gnomic (eternal) and habitual meanings

Grammaticalization the change, over time, of a free lexical item to a "grammatical unit" (see Heine *et al.* (1991) for further discussion). In this dissertation, the main concern with respect to grammaticalization is not lexical sources or formal changes, but tracing possible *meaning* or functional shifts over time

Hesternal used to describe tenses where the Topic Time is the day prior to utterance (or other reference) time.

Hodiernal indicates that Topic Time is at least partially included in the day of utterance. (From Latin *hodie*, 'today'.)

Immediate Question Under Discussion see DISCOURSE TOPIC

Information Structure (IS) (following Roberts 1998): a communicative strategy for organizing and packaging information in discourse to carry out communicative goals. IS is pragmatic in that as they structure their intended communicative content, speakers take into account context, prior discourse (e.g. whether the information is discourse new or not new), and hearer knowledge and beliefs

Macrostem comprises the verb root, final vowel, and any object-marking prefixes

Markedness (following Fleischman 1990:53): "the idea that where there is an opposition involving two or more members...one member of theo pposition is often felt to be more normal more common, or less specific (the *unmarked* member of the opposition) than the others, which are *marked* by the presence of some feature that the unmarked member lacks"

Metrical Remoteness (following Botne & Kershner 2008:211): a remoteness distinction marking a fixed temporal distance boundary within a (P- or D-) domain, e.g. a hodiernal/hesternal past distinction. This contrasts with DISSOCIATIVE RE-MOTENESS

Mood grammatical marking (or lack thereof) reflecting speaker attitude towards the situation and its truth value (e.g. imperative, indicative, optative, subjunctive, etc.) Other categories treated as "mood" or "modality" may include expressions indicating "ability, desire, intention, obligation, permission, possibility, probability, and others" (Nurse 2008:313)

Multiple Logistic Regression (MLR) is used to estimate the relationship between one or morePREDICTOR VARIABLES (or "independent" variables) and a dichotomous (or otherwise categorical) OUTCOME VARIABLE (sometimes called a "dependent" variable).

Narrative basic definition (following Labov & Waletzky 1967): a telling of events in the order in which they occurred

Orientation (following Labov & Waletzky 1967; Labov 2001): in a narrative, an introduction "to the time, place, actors, and activity" that sets the stage for what will follow (Labov 2001:64)

P-Domain (following Botne & Kershner 2008:153): the primary domain, or cognitive world included in the time of speech, "denot[ing] a primary, prevailing experiential past and future perspective" (in contrast to the D-DOMAIN)

Perspective time (following Condoravdi 2002): the time from which a proposition's truth value is assessed

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Pragmatic meaning the non truth-conditional (i.e. non-semantic) meaning of an utterance[2]

Predicate used here to refer to the part of an utterance that describes the situation relevant for determining situation type, e.g. 'build a house' in 'Michael built a house' (vs. 'build' in 'Michael built'). Smith (1997) refers to VERB CONSTELLATIONS comprising the verb and its arguments.[3] The important distinction here is that situation type varies according to verbal arguments, and not just to the lexical verb alone

Prehodiernal contrasts with HODIERNAL to indicate Topic Times fully completed prior to the day of utterance

Relevance (following Roberts 1998): An utterance is RELEVANT if it provides a complete or partial answer to the salient question in the current discourse (i.e., the immediate question under discussion), thereby reducing the context set

Resultative an aspect that selects a state resulting from a situation

Semantic meaning the truth-conditional meaning of an utterance

Situation a neutral term used to describe any eventuality, whether event (action, happening) or state

Situation Type a categorization of situations (or more accurately, the predicates used to describe situations) according to their structural properties (e.g. whether there is an inherent completion point), which affect how they interact with various forms of grammatical aspect. The most common set of distinctions is that set out by Vendler (1957) and refined by Smith (1997): STATE, ACTIVITY, ACCOMPLISHMENT, ACHIEVEMENT, and SEMELFACTIVE. These categories, however, have been found to be less predictive of aspectual interpretation in Bantu; more applicable is a general distinction between DURATIVE and CHANGE-OF-STATE situations (Kershner 2002; Seidel 2008) Other common terms for situation type in the literature: AKTIONSART, SITUATION ASPECT, LEXICAL ASPECT.

Tenor (following Botne & Kershner 2008): a temporal distinction *within* the cognitive P-domain (TENSE disinguishes *between* domains)

Tense (following Botne & Kershner 2008): the deictic temporal relationship between the speech time and the cognitive domain involved in the event's depiction (also referred to is a ***temporal definition*** (following Klein 1994): the relationship between topic time (the time being referred to in the utterance) and the time of utterance (for non-relative tenses))

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[2]The question of EXPLICATURE, where pragmatics might be said to "intrude" on semantic meaning, is also important, but does not significantly affect the analyses put forth in this study.

[3]The subject of a sentence may also be relevant for situation type, as, for example, in pluractional contexts with many actors performing the same action; such distinctions are not made in this dissertation, however.

Time of Situation (TSit) the time for which the situation described in at utterance can be said to hold; roughly corresponds to EVENT POINT (E) in Reichenbach (1947)

Time of Utterance (TU) (following Klein 1994): the time at which the utterance is made; roughly corresponds to SPEECH POINT (S) in Reichenbach (1947)

Topic Time (TT) (following Klein 1994): the time span referred to in an utterance; roughly corresponds to REFERENCE POINT (R) in Reichenbach (1947)

Appendix B

-*ite* forms

-*ite*'s form, in the general case, is -*ite* or -*ete*. As is the case with reflexes of PB *-*ide* in other western and central Bantu languages (i.e. zones H, R, K, L, and M; Bastin 1983:13) the first vowel of the -*ite* suffix harmonizes for (mid) height with the verbal root vowel, resulting in -*ite* after *i*, *u*, and *a*; -*ete* after mid vowels *e* and *o*.[1]

Other forms are the result of imbrication, in which the suffix "moves inside" the root, causing vowel coalescence and consonant loss, consonant mutation, and consonant harmony (see also Bastin 1983; Botne & Kershner 2000:168).

B.1 Regular forms

The table in (522) shows -*ite* with verbs taking its regular form. Forms harmonizing to -*ete* are highlighted.

(522) Regular forms

Stem	Gloss	-*ite* form
-ita	'pass'	-it<u>ite</u>
-zimba	'swell'	-zimb<u>ite</u>
-luka	'be good'	-luk<u>ite</u>
-zimbuluka	'be round'	-zimbuluk<u>ite</u>
-sesa	'marry'	-ses<u>ete</u>
-penga	'suffer'	-peng<u>ete</u>
-yoba	'get lost'	-yob<u>ete</u>
-wola	'get better'	-wol<u>ete</u>
-taba	'be(come) happy'	-tab<u>ite</u>
-saka	'want'	-sak<u>ite</u>

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[1]In some languages in the zones mentioned here, *-*ide* reflexes, unlike reflexes of applicative *-*ɪd*-, do not harmonize, pointing to a vowel height distinction in PB (Bastin 1983:23-24).

B.2   Consonant mutation: *t ¿ s*

Although the high vowel *i in Proto-Bantu conditioned plosive spirantization in a number of Totela consonants (see section 2.2.6), the only consonant mutation found to date with *-ite* in Totela is *t > s*. This may be further evidence for a separate source for *-ite* and *-ile*, with the former having its source in a separate PB *ɪCV form, rather than the high *i proposed for **-ide*. Totela forms with *t > s* mutation end in *-i*, which alternates with *-ile* in a number of Bantu languages. Bastin argues, based on its limited distribution within the languages where it is found, that *-i* likely has a separate source from *-ile*, possibly in a stative ending (Bastin 1983:77-82; 91-94). The vowel changes (*a > e* in the forms below suggest that both forms are at play, with *-ile* imbricating into the verb stems.

Examples of *t > s* mutation in Totela *-ite* forms are given in (523). As is common across Bantu, such forms are few and apparently frozen with a small number of verb roots. It may also be noted that use of these forms occasionally varied with a few consultants, who gave instead the regular *-ite* forms. However, such variation was rare and only occurred in elicitation contexts.[2]

(523)   *-ite* triggering consonant mutation with -V*t*- final roots

Stem	Gloss	*-ite* form
-kwaata	'grab, catch, etc.'	-kw<u>ee</u>s<u>i</u>
-zwata	'dress'	-zw<u>esi</u>
-ikuta	'be(come) full'	-ik<u>usi</u>

Consonant mutation does not affect all synchronic forms ending in -V*t*-, however, as seen with the root *-kata* ('be(come) thin') in (524):

(524)   -V*t*- with no consonant mutation

Stem	Gloss	*-ite* form
-kata	'be(come) thin'	-kat<u>ite</u>

B.3   Imbrication with -V*l*V

Verbs stems with the final consonant *l* (and harmonic *n* and *s/z*) also undergo imbrication. This is generally true whether the *l* is part of an extension (e.g. applicative) or not. This process is common with *-ile* reflexes (Bastin 1983:98ff).

(525)   *-ite* with verbs ending in -V*l*V

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[2]One other *-si*–final *-ite* form is attested in Totela: *-lolesi* 'be looking on [seeing everything that is happening]', which is related to PB *dod 'look'. The morphology of this item is somewhat unclear at present as the form has only been attested as *-lolesi* to date. Bastin (1983:92) offers the following explanation for the Luiya (JE.32?) form *-lutsi*: **-lol-ile* > **-lo-ile* > **-loitse* > **-loitsi* (**-loitsɪ*?) > *-lutsi*. A similar process of imbrication may account for the examples in (523).

a. *-ala > -ele*

Stem	Gloss	*-ite* form
-laala	'sleep'	-le<u>ele</u>
-ikala	'stay'	-ik<u>ele</u>
-zibala	'forget'	-zib<u>ele</u>
-tandabala	'stretch out legs'	-tandab<u>ele</u>

b. *-ela > -ele*

Stem	Gloss	*-ite* form
-tobela	'seek'	-tob<u>ele</u>
-shekela	'sink to bottom'	-shek<u>ele</u>

c. *-ila > -ile*

Stem	Gloss	*-ite* form
-lindila	'wait for'	-lind<u>ile</u>
-langilila	'stare'	-langil<u>ile</u>

d. *-ola > -wele*

Stem	Gloss	*-ite* form
-tontola	'be(come) cold'	-tont<u>wele</u>

e. *-ula > -wile*

Stem	Gloss	*-ite* form
-hupula	'think, remember'	-hup<u>wile</u>
-wambaula	'discuss, converse'	-wamba<u>wile</u>

f. Similar processes with -V*n*- and -V*s/z*

Stem	Gloss	*-ite* form
-zimana	'stand up'	-zim<u>ene</u>
-kanamina	'recline on'	-kanamine
-foseza	'do wrong to'	-foseze
-kataza	'trouble (v.)'	-kateze
-bona	'see'	-bwene

B.4   *-ite* with passive forms

The passive extension **-u-* also allows imbrication, appearing inside *-ite* forms as *w*. This may also be evidence for a bi-morphemic **-it-e-* origin of some sort.

(526)   *-ite* with passive forms

Stem	Gloss	*-ite* form
-chiswa	'get hurt, sick'	-chis<u>itwe</u>
-ñolwa	'be written'	-ñol<u>etwe</u>
-komokwa	'get surprised'	-komok<u>itwe</u>
-nyeelwa	'be(come) annoyed'	-nye<u>elwe</u>

B.5 *-ile* forms

In Totela, only a few forms take *-ile* endings: monosyllabic -CV stems (527a) and a few other roots such as *-suwa* 'hear, feel, understand' and, sometimes *-wamba* 'speak' (527b).

(527)   *-ile* forms

    a. Monosyllables

Stem	Gloss	*-ite* form
-wa	'fall'	-wii<u>le</u>
-fwa	'die'	-fwii<u>le</u>
-pa	'give'	-pe<u>ele</u>
-lya	'eat'	-lii<u>le</u>
-ya	'go'	-ile
-n(y)wa	'drink'	-n(y)wii<u>ne</u>

    b. Other forms taking *-ile*

Stem	Gloss	*-ite* form
-suwa	'hear, understand'	-suw<u>ile</u>
(-wamba	'speak'	-wamb<u>ile</u>)

B.6 Irregular *-ite* forms

A form that appears to be completely irregular occurs with the stative verb 'know', which always occurs with *-li-* in the form *-izi* when it means 'know', but as *-iziba* with the inchoative meaning 'come to know'.

(528)   *-ite* with *-iziba*

Stem	Gloss	*-ite* form
-iziba	'come to know'	-izi

B.7 Tone

In main-clause present indicative contexts without , *-ite* forms have tone patterns akin to those of non-completive *-la-* forms, i.e. present stative *-li-* is H toned when followed by a H stem and toneless otherwise (e.g. *ndìlìtàbìtè* 'I am happy' and *ndìlísèsètè* 'I am married'). With object markers, negative polarity, persistive *-chi-*, dissociative (past) imperfective *ka-*, or any combination thereof, *-ite* tones take special forms that allow for many variants. There is tonal differentiation of forms in *-ite* from forms in *-ile* and other, irregular forms, although there does not seem to be any difference in meaning or usage. Tone patterns with *-ite* (etc.) forms are under continuing investigation.

Appendix C

Tone in Totela

This appendix offers preliminary findings from an ongoing study of Totela's tone system, which is typologically unusual in its system of high-tone anticipation (HTA) (see Hyman 2007b). It describes basic facts and tonal distributions, tonal processes such as high-tone anticipation and Meeussen's Rule, downstep, and grammatical tone patterns on verbs. The question of downstep conditioning is particularly complex and is only treated briefly here.

Unlike in the main body of this dissertation, only H tones are marked. Underlining indicates posited input H tones.

C.1   Basic facts

Totela has four surface (non-intonational) tones: H, ꜛH, L, HL (falling). H tones, apart from intonational H%, do not occur on utterance-final syllables. Several H tones may appear in a word, with downdrift – i.e. phonetic downstep, in which Hs in a series of Hs and Ls are produced progressively lower – evident. An example of downdrift may be seen in figure C.1, which shows a spectrogram and pitch trace for *máyiwíye* 'bird (sp.)', which has the surface tone pattern H-L-H-L.
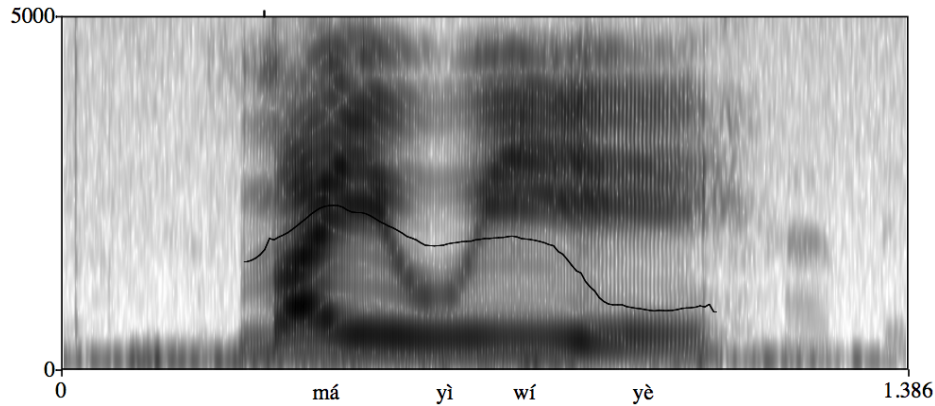
Figure C.1: Downdrift in *máyìwíyè*

Phonologically downstepped Hs (ꜜH) are also found, and are discussed in C.4.

A HL (falling) tone occurs only on long vowels, which, as mentioned above, includes vowels occurring before prenasalized stops. Within noun stems, a falling tone can occur in any position. With verb stems (root + final vowel), grammatically-conditioned falling tones can only occur on the final or penultimate syllable. Some examples of falling tones are given in (529).[1]

(529)   a.   omwáàmi 'chief'

        b.   mpêngu 'sable, roan' [mpê:ngu]

        c.   láàl-a! 'sleep!' (imp.)

        d.   yênd-a! 'walk!' (imp.) [okuye:nda]

Vowel coalescence also results in a HL contour tone, as in (530), where vocalic noun augment (pre-prefix) of <u>o</u>munzi 'village' coalesces with the final vowel of <u>ok</u>ú<u>bo</u>na 'to see'. High-tone anticipation (see section C.2) from the augment to the final vowel results in an output falling tone.[2]

(530)   <u>o</u>kú-b<u>o</u>na 'to see' + <u>o</u>mu-nzi 'village (cl.3)' →
       <u>o</u>kú-b<u>o</u>n'ô:mu-nzi 'to see the village'

In a (declarative-type) utterance with Hs and Ls, all Ls following the final H tend to be super-low, as in figure C.2. This is only the case at the end of a phrase.

C.1.1   Privative or binary?

As discussed in Hyman (2001), two-tone systems may be analyzed as having a privative (e.g. H vs. Ø) or a binary (H vs. L) opposition. Hyman gives several criteria for judging whether

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[1]At least one clearly perceivable long vowel does not fall in this context: *bóóla!* 'return'

[2]For clarity of presentation, across-word vowel coalescence is not represented in the orthography.

ijilo ba-ka-ndi-waan-a na-ndi-tobél-a̱ a̱bantu
'yesterday they found me seeking some people'
(L-L-L L-L-L-L-L L-L-L-**H**-L L-L-L)
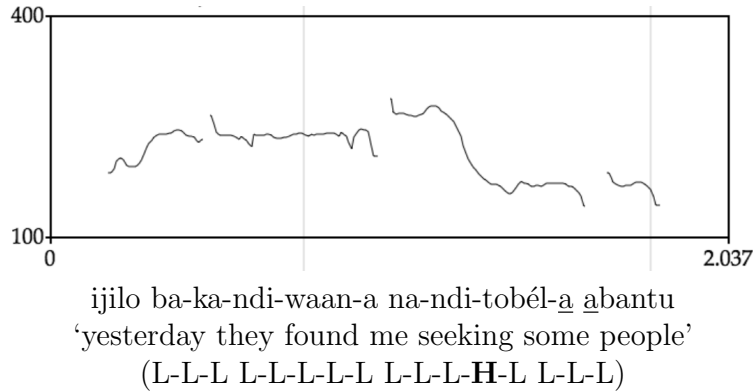
Figure C.2: Phrase-final super-low tones

a particular system involves two (binary) or just one input tone. Totela is ambiguous in this regard.

In general, only the H tone appears to be phonologically active and subject to the Obligatory Contour Principle (prohibiting H-H sequences, which seem to be resolved either by downstep (H-H → H-ᴵH) or H-delinking (H-H → H-L), depending on the context. Any number of L tones may appear in sequence without conditioning similar processes. These facts point to a privative system.

In favor of a binary system is the presence of contour tones and of downstep, which in some representations can only be caused by floating L tones, i.e. tones not linked to segmental content. However, if a representation allows for empty nodes that condition downstep, then floating Ls need not be introduced. Additionally, it has been proposed several times that downstep may be conditioned by the concatenation of two H tones, without the presence of an input L (e.g. Odden 1986; Bickmore 2000, 2007).

I assume for the present purposes that input tones are either H or L, while acknowledging that a floating L tone may need to be introduced in the analysis of downstep, described in section C.4).

C.2   High-tone anticipation (HTA)

The most salient feature of Totela tone is its remarkably regular system of High-tone anticipation (HTA). In the simplest cases, H tones surface one syllable to the left of input Hs.[3]

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[3]Tonga (M.64) also has a system of anticipatory tone. The Tonga system has many similarities with Totela, although there are also some significant differences. Goldsmith (1984) proposed an underlying $H\overset{*}{L}$ tone melody for each accent in Tonga. Such an analysis might be adapted in the analysis of Totela, as well. This appendix does not present a full-fledged analysis of Totela's tone system, but rather offers basic facts about an unusual and fascinating system about which no known literature exists.

C.2.1   HTA within words

HTA may be seen clearly in the infinitive forms of verb roots, which are either toneless or are associated with a single lexical H tone. The H tone from a verb root with an associated H surfaces on the infinitive prefix *oku-*. An example is given in table C.1, which shows that toneless input forms (in the left column) surface as all L, whereas roots with a H tone (in the right column) surface with a H on the prefix. Input H tones are underlined.[4]

Ø root		H root	
o̱ku-lwa	'to fight'	o̱kú-twa̱	'to pound'
o̱ku-saka	'to want'	o̱kú-ho̱ha	'to pull'
o̱ku-ziika	'to bury'	o̱kú-bi̱ika	'to hide'
o̱ku-ukuta	'to shake'	o̱kú-ye̱mbela	'to herd'

Table C.1: Infinitive forms of Ø and H roots

When a toneless object marker (such as 3sg -*mu*-) occurs between the prefix and the root, the H tone surfaces on the object marker, as in table C.2, which shows that H tones surface one syllable to the left of the input H.

Ø root		H root	
o̱ku-mu-ziika	'to bury him'	o̱ku-mú-bi̱ika	'to hide him'
o̱ku-mu-ukusa	'to shake him'	o̱ku-mú-hu̱pula	'to think of him'

Table C.2: Infinitives with (Ø) object markers

Subject markers apparently do not contrast for tone within a paradigm.

C.2.2   HTA across words

As hinted in example (530), HTA also occurs across words. A number of input forms have initial Hs, including vocalic noun augments, and locative prefixes *a-*, *ku-*, and -*mu*-. The initial H surfaces on the final vowel of a previous word, as in (531).

(531)   o̱ku-ya 'to go' + ku̱-mu-lónga̱ 'to river (cl.3)' →
        o̱kuyá ku̱-mu-lónga̱ 'to go to the river'

Domain:	phrase	
Directionality:	left → right	
Extent:	bounded (1 syllable/mora)	
Attractors:	??	
Inhibitors:	??	
Target delinking	(yes)	
Trigger delinking	yes (shifting)	
Iterative:	no	

Table C.3: Summary of properties of Totela HTA (from properties listed in Hyman 2007b:8-10)

C.2.3 Totela HTA and tone-shift typology

C.3 Meeussen's Rule

"Meeussen's Rule" (MR), used by Goldsmith (1984:29) to refer to a property described by Meeussen (1963) for Tonga, in which the second H in a H-H sequence deletes (H-H → H-L). This process occurs in Totela when two Hs are concatenated at the lexical level.

C.3.1 MR within words

This property is evident in when H-toned verb roots are preceded by H-toned object markers, such as 3pl -*ba*-. Table C.4 shows that H and Ø roots are neutralized in infinitives with H object markers. A sample derivation is given in table C.5 with 3pl -*ba*- and H root -*hupula* 'think, remember'.

Ø root		H root	
o̱kú-ba̱-ziika	'to bury them'	o̱kú-ba̱-bi̱ika	'to hide them'
o̱kú-ba̱-ukusa	'to shake them'	o̱kú-ba̱-hu̱pula	'to think of them'

Table C.4: Infinitives with (H) object markers

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[4]The infinitive augment *o-* also has an input H, but H tones from leftmost syllables do not surface because there is no syllable on which to surface.

	o	ku	ba	hu	pu	la
	o	ku	ba	hu	pu	la
	|		|	|		
	H		H	H		
MR	o	ku	ba	hu	pu	la
	|		|			
	H		H	H		
Post-shift output	o	kú	ba	hu	pu	la
		|				
		H				

Table C.5: Derivation of okú-ba-hupula 'to think of them'

In general, Meeussen's rule applies iteratively left to right within the macrostem, including the root and object marker. This is shown in table C.6, where three concatenated input Hs (H object marker -*ba*-, H root -*babalela*, and grammatical H on the hortative object marker form) surface as H-L-H. A pitch trace is shown in figure C.3.

	mu	ka	ba	ba	ba	le	le
	mu	ka	ba	ba	ba	le	le
	|		|	|	|		
	H		H	H	H		
MR	mu	ka	ba	ba	ba	le	le
	|		|		|		
	H		H		H		
Post-shift output	mu	ká	ba	bá	ba	le	le
		|		|			
		H		H			

Table C.6: mu-ká-ba-bábalal-e 'go take care of them' (2pl hortative) – grammatical H on 2nd root mora
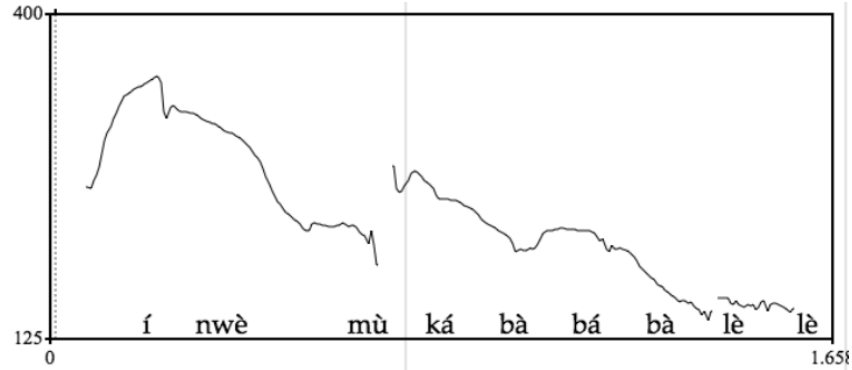
Figure C.3: Pitch trace for mu̱-ká-ba̱-bábala̱l-e 'go take care of them' (2pl hortative)

H-tone shift and the application of Meeussen's Rule are also evident in forms reconstructed from Proto-Bantu, as shown in table C.7. Due to the lowering of the second input H (Meeussen's Rule), the tone patterns of Proto-Bantu *H-H and *H-L forms are neutralized in Totela. Spectrograms with pitch traces for the forms in table C.7 are given in figure C.4.

*PB tone	*PB form	Totela reflex	Gloss
*H-H	*kádá	nánka̱la̱ (MR)	'crab'
*H-L	*kúpà	echí-fu̱wa	'bone'
*L-H	*gòdí	olu-wózi̱	'string'
*L-L	*jògù	in-zohu	'elephant'

Table C.7: Reflexes of *PB nouns (H in first stem syllable surfaces on prefix)

nánk<u>a</u>l<u>a</u> 'crab'   echí-f<u>u</u>wa 'bone'

olu-wózi 'string'   ba-nzohu 'elephants'
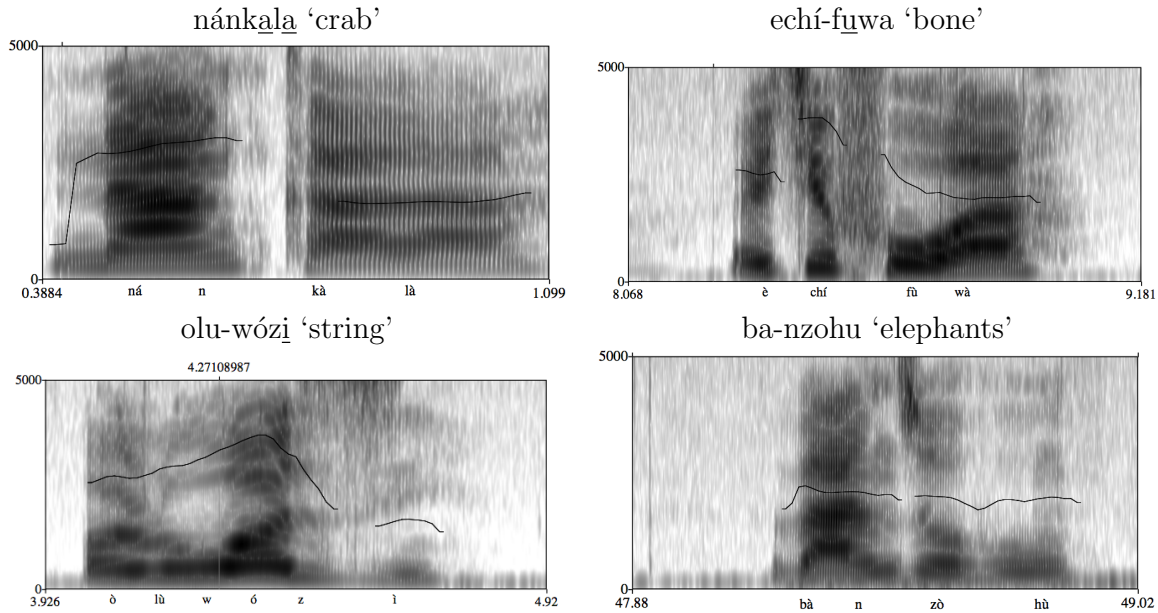
Figure C.4: Spectrograms and pitch traces for the Totela forms in table C.7

C.3.2 MR across words

As noted in C.2.2, HTA occurs across words as well as within words. Seemingly, Meeussen's Rule can block HTA to a final vowel occurring to the left of an input H tone, when the final vowel also has an input H (i.e. a H surfacing on the penult). Instead, the second H is lowered, as shown in (532).

(532) ta-ndi-sák<u>i</u> 'I don't like' + <u>a</u>ba-ntu 'people (cl.2)' →
       ta-ndi-sák<u>i</u> <u>a</u>ba-ntu 'I don't like people'
       (cf. ndi-la-saká <u>a</u>ba-ntu 'I like people')

C.4 Downstep

Output H-H(L) sequences that are not the result of plateauing are realized with downstep: H-ꜜH. This occurs within words with long vowels and with vowels followed by prenasalized stops, which also conditions lengthening. Examples are given in (533).

(533) a. aká-ꜜd<u>á</u>ála 'old man'
       b. mú-ꜜl<u>ó</u>mbwe 'saddle-bill stork'
       c. bá-ꜜs<u>á</u>ntombeléka 'lizards (sp.)' cf. sántombeléka 'lizard'

Downstep also occurs across words. In most cases, an H-H–initial second word in the input results in downstep in the output, as shown in (534) and (535).[5]

(534)   a. o̱ku-ya 'to go' + kú̱-S̱imunyewu 'to Beetle' →
         o̱ku-**yá** ˈ**kú̱-S̱i**munyewu 'to go to Beetle';

      b. cf. o̱ku-yá ku̱-bá-S̱imunyewu 'to go to Mr. Beetle'

(535)   a. *kukasi**ká** ˈ**kú̱mḇa**li n̲o̱munzi*

        ku-ka-sik-**á**   ˈ**kú̱-mḇa**li   na=o̱mu-nzi
        INF-DIST-arrive-FV CL17(LOC)-side COM=CL3-village

        'then they arrived by the village'

      b. *na**bó** ˈ**mó̱ò**mu dii! dii! dii!*

        na**bó**   ˈ**mó̱ò**mu   *dii! dii! dii!*
        COM.2PL.DEM CL18(LOC).DEM *whirr! whirr! whirr!*

        'and in there he's going *whirr! whirr! whirr!*'

      c. *íns̲i̱**má** ˈ**yá̱ngu̱***

        ín-s̲i̱má   ˈ**yá̱ngu̱**
        CL9-nshima CL9.1SG.POSS

        'my mealie-pap'

Downstep conditioning is complex, and only a few issues have been discussed here.

C.5   Plateauing

In some cases, toneless TBUs preceding a H tone raise to produce a series of H tones. The production of plateauing seems to be variable. It is most evident in verb forms with a grammatical H surfacing on the penult, as in (538) below. The H before the last L of a phrase is the most perceptually salient, due to a large drop in pitch from H to L, so the final H in a plateau is most salient. Speakers typically accepted pronunciations with and without plateauing.

Table C.8 shows a paradigm for the hortative mood, with grammatical H surfacing on the penult, with plateauing.

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[5]Cliticization of comitative *na=*, as with *nomunzi* in (535a), appears to block HTA.

Syll	Ø Root	Pattern	H Root	Pattern
1	m<u>u</u>-w<u>ê</u>	**L-HL**	m<u>u</u>-s<u>yê</u>	**L-HL**
2	m<u>u</u>-sák<u>e</u>	**L-H-L**	m<u>u</u>-h<u>ó</u>h<u>e</u>	**L-H-L**
2L	m<u>u</u>-zîk<u>e</u>	**L-HL-L**	m<u>u</u>-bîk<u>e</u>	**L-HL-L**
3	m<u>u</u>-úkút<u>e</u>	**L-(H)-H-L**	m<u>u</u>-h<u>á</u>lík<u>e</u>	**L-(H)-H-L**
3L	m<u>u</u>-záánín<u>e</u>	**L-(HH)-H-L**	m<u>u</u>-tééngám<u>e</u>	**L-(HH)-H-L**
4	m<u>u</u>-ñátáwúl<u>e</u>	**L-(H-H)-H-L**	m<u>u</u>-tándábál<u>e</u>	**L-(H-H)-H-L**
5	m<u>u</u>-nyámúkílíl<u>e</u>	**L-(H-H)-H-L**	m<u>u</u>-h<u>ú</u>lúmúkílíl<u>e</u>	**L-(H-H-H)-H-L**

Table C.8: Hortative (given here is 2pl): 'may you X!'

C.6 Grammatical tone

Three major tone patterns emerge in tense/aspect/mood marking:

1. **No grammatical tone**: Surface forms reflect (anticipated) input tones, subject to Meeussen's Rule.

   (536) a. nda-ka-mú-b<u>o</u>na 'I saw him (yesterday or before)' (H root, Ø OM)
          b. nda-ká-b<u>a</u>-b<u>o</u>na 'I saw them (yesterday or before)' (H root, H OM)

   Examples: indicative non-completive, completive, dissociative past and future, with and without object markers

2. **Grammatical H on 2nd root syllable**: Surface forms have H on the first mora (avoiding LH contours), unless Meeussen's Rule applies.

   (537) a. ta-ndi-sák<u>i</u> 'I don't want (to)' (Ø root)
          b. ta-ndí-h<u>o</u>h<u>a</u> 'I don't pull' (H root)
          c. m<u>u</u>-ka-mú-b<u>a</u>b<u>a</u>lele 'go take care of him (elsewhere)' (H root, Ø OM)
          d. m<u>u</u>-ká-b<u>a</u>-b<u>á</u>b<u>a</u>lele 'go take care of them (elsewhere)' (H root, H OM)

   Examples: imperatives and hortatives with object markers, negatives (non-completive, completive, dissociative past, persistive -*chi*-) with and without object markers

3. **Grammatical H on final vowel**: Surface forms have penultimate H, sometimes with H plateauing.[6] Causatives and passives behave as if they have an extra final mora, resulting in (e.g.) *yendisâ* rather than **yendísa* 'walk a lot!'.[7]

---

[6]Toneless TBUs may raise before Hs in other contexts as well. This was the clearest case I found of plateauing.

[7]Some other forms that are not causative but end in -*sa*, or are not passive, but end in -*wa* also take this tone pattern at least sometimes, by analogy. For example *fosâ* 'make a mistake!' and even suwâ 'listen!' (ZT2009Elic151).

(538)   a.   mu̲-ŋátáwúle̲ 'cut up' (2pl. hortative) (Ø root)

         b.   mu̲-bá̲báléle̲ 'take care (of X)' (2pl. hortative) (H root)

Examples: imperatives, prehodiernal imperfective affirmative and negative, situative, persistive -*chi*-, most relative clauses

These patterns have some variation, depending on the TAM. Variation is seen particularly in the realization of grammatical H tone with monosyllabic stems.

The remainder of this appendix is comprised of selected TAM tone paradigms. Table C.9 shows a surface penultimate-H (posited input H on FV) form with plateauing. Other penultimate-H forms may also be assumed to have this property.

C.7   TAM tone paradigms

This section offers tone paradigms for a selection of tense, aspect, and mood forms in Totela, with stems of 1, 2, 3, and 4 syllables, respectively, and for toneless and H-toned roots. Bisyllabic stems with a long vowel – which include length conditioned by a prenasalized stop, as in *yê:nda* 'walk!' – are also represented, because these behave differently than other forms in the paradigm. They are labeled 2L. Length does not influence tone patterns of stems of three or more syllables. In paradigms with object markers, both H (e.g. 3pl -*ba*- and class 7 -*chi*-) and toneless (e.g. 1sg -*ndi*- and 3sg -*mu*-) object markers are represented.[8]

Table C.9 shows a sample paradigm for the hortative, exemplified by the 2pl hortative, also used as a polite command. Posited input Hs are underlined. Tone patterns with output Hs and Ls are given to the right of the forms, with posited input Hs underlined and stem tones bolded. Variable plateauing is indicated by parentheses. Tone patterns for trisyllabic stems with long vowels are given, as are tone patterns for stems with five syllables. Because these do not evidence any differences from the rest of the paradigm, they are not included in subsequent tables.

---

[8]No known tone paradigm differences have been observed between lexical items of the same tone class, so different roots are sometimes given when the choice made more sense semantically. Verbs appearing in the paradigms include the following:

Toneless: -*la(w)uka* 'run', -*luka* 'weave, sew', -*lwa* 'fight', -*mana* 'finish', -*nya* 'defecate', -*nyamukilila* 'all set off' -*ñatawula* 'tear to pieces', -*saka* 'want, like, love', -*tobela* 'look for, seek', -*ukuta* 'shake (intr)', -*wa* 'fall', -*wambila* 'tell', -*zaanina* 'play (applicative)', -*ziika* 'bury'

H-toned: -*babalela* 'take care of', -*biika* 'hide', -*halika* 'roast (on fire)', -*hoha* 'pull', -*hulumukilila* 'show madness to(?)', -*hupula* 'think, remember', -*laala* 'sleep', -*lya* 'eat', -*pa* 'give', -*suuka* 'climb down', -*suwa* 'hear, feel, understand', -*sya* 'dig', -*tandabala* 'stretch out legs', -*tengama* 'lean', -*twa* 'pound', -*yasa* 'spear', -*yembela* 'herd'

Glosses are not given in the tables that follow due to constraints of space, but should be recoverable with the above word list and grammatical information provided for each table.

Syll	Ø Root	Pattern	H Root	Pattern
1	mu̲-wê	L̲-H**L̲**	mu̲-sy̲ê	L̲-H**L̲**
2	mu̲-sáke̲	L̲-**H**-**L̲**	mu̲-hó̲he̲	L̲-**H̲**-**L̲**
2L	mu̲-zîke̲	L̲-**HL**-**L̲**	mu̲-bî̲ke̲	L̲-**HL**-**L̲**
3	mu̲-úkúte̲	L̲-(**H**)-**H**-**L̲**	mu̲-há̲líke̲	L̲-(**H̲**)-**H**-**L̲**
3L	mu̲-zááníne̲	L̲-(**HH**)-**H**-**L̲**	mu̲-tééngáme̲	L̲-(**H̲H**)-**H**-**L̲**
4	mu̲-ñátáwúle̲	L̲-(**H-H**)-**H**-**L̲**	mu̲-tándábále̲	L̲-(**H̲-H**)-**H**-**L̲**
5	mu̲-nyámúkílíle̲	L̲-(**H-H**)-**H**-**L̲**	mu̲-hú̲lúmúkílíle̲	L̲-(**H̲-H-H**)-**H**-**L̲**

SM-Root-*e*

Table C.9: Hortative (given here is 2pl): 'may you X!'

Tone patterns of output Hs and Ls are given along with the forms themselves for a sampling of tables from each major type of grammatical tone. The remaining tables show only the forms. TAM information is shown in table captions; information about the pattern and its posited input tone is given in bold below each table. Further information about the morphemes involved may be found throughout the main body of this study, particularly in chapter 7.

All available forms are given; where forms are missing, they are not yet available.

The forms are organized according to their main tone pattern (anticipation of input tones, of H on 2nd syllable, and of H on FV, respectively). A list of tables is given on the next page for easy reference.

List of Tables

C.7.1 Input lexical Hs, no special grammatical tone evident

Syll	Ø Root	Pattern	H Root	Pattern
1	ndi-la-wa	L-L-**L**	ndi-lá-tw<u>a</u>	L-H-**L**
2	ndi-la-saka	L-L-**L-L**	ndi-lá-h<u>o</u>ha	L-H-**L-L**
2L	ndi-la-ziika	L-L-**LL-L**	ndi-lá-b<u>i</u>ika	L-H-**LL-L**
3	ndi-la-ukuta	L-L-**L-L-L**	ndi-lá-y<u>e</u>mbela	L-H-**L-L-L**
4	ndi-la-ñatawula	L-L-**L-L-L-L**	ndi-lá-b<u>a</u>balela	L-H-**L-L-L-L**

SM-*la*-Root-*a*

Table C.1: Non-completive with -*la*-

Syll	Ø Root	H Root
1	nda-wa	ndá-pa
2	nda-mana	ndá-suwa
2L	nda-ziika	ndá-biika
3	nda-ukuta	ndá-hupula
4	nda-ñatawula	ndá-babalela

SM-*a*-Root-*a*

Table C.2: Completive

Syll	Ø Root	H Root
1	nda-ka-wa	nda-ká-twa
2	nda-ka-mana	nda-ká-hoha
2L	nda-ka-ziika	nda-ká-laala
3	nda-ka-ukuta	nda-ká-hupula
4	nda-ka-ñatawúla	nda-ká-babalela

SM-*a*-*ka*-Root-*a*

Table C.3: Dissociative (prehodiernal) past

Syll	Ø Root	H Root
1	ná-ndi-la-lwa	ná-ndi-lá-lya
2	ná-ndi-la-mana	ná-ndi-lá-yasa
2L	ná-ndi-la-ziika	ná-ndi-lá-biika
3	ná-ndi-la-ukuta	ná-ndi-lá-hupula
4	ná-ndi-la-ñatawula	ná-ndi-lá-babalela

na*-SM-*la*-Root-*a

Table C.4: Dissociative (posthodiernal) future indicative

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1	ndi-la-mu-nya	ndi-lá-chi-nya	ndi-la-mú-twa	ndi-lá-ba-twa
2	ndi-la-mu-saka	ndi-lá-ba-saka	ndi-la-mí-suwa	ndi-lá-ba-suwa
2L	ndi-la-mu-ziika	ndi-lá-ba-ziika	ndi-la-mú-biika	ndi-lá-ba-ziika
3	ndi-la-mu-wambila	ndi-lá-ba-wambila	ndi-la-mú-hupula	ndi-lá-ba-hupula
4	ndi-la-mu-ñatawula	ndi-lá-ba-ñatawula	ndi-la-mí-babalela	ndi-lá-ba-babalela

SM-*la*-OM-Root-*a*

Table C.5: Non-completive with -*la*- + object marker

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1	nda-mu-nya	ndá-chi-nya	nda-mí-twa	ndá-ba-twa
2	nda-mu-saka	ndá-ba-saka	nda-mú-yasa	ndá-ba-yasa
2L	nda-mu-ziika	ndá-ba-ziika	nda-mú-biika	ndá-mu-biika
3	nda-mu-wambila	ndá-ba-wambila	nda-mí-hupula	ndá-mu-hupula
4	nda-mu-ñatawula	ndá-ba-ñatawula	nda-mú-babalela	ndá-mu-babalela

SM-*a*-OM-Root-*a*

Table C.6: Completive + object marker

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1	nda-ka-mu-nya	nda-ká-chi-nya	nda-ka-mú-pa	nda-ká-ba-pa
2	nda-ka-mu-mana	nda-ká-chi-mana	nda-ka-mú-yasa	nda-ká-ba-yasa
2L	nda-ka-mu-ziika	nda-ká-ba-ziika	nda-ka-mú-biika	nda-ká-ba-biika
3	nda-ka-mu-wambila	nda-ká-ba-wambila	nda-ka-mú-hupula	nda-ká-ba-hupula
4	nda-ka-mu-ñatawula	nda-ká-ba-ñatawula	nda-ka-mú-babalela	nda-ká-ba-babalela

SM-*a-ka*-OM-Root-*a*

Table C.7: Dissociative (prehodiernal) past + object marker

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1	ná-ndi-la-mu-nya	ná-ndi-lá-chi-nya	ná-ndi-la-mú-twa	ná-ndi-lá-ba-twa
2	ná-ndi-la-mu-saka	ná-ndi-lá-ba-saka	ná-ndi-la-mú-yasa	ná-ndi-lá-ba-yasa
2L	ná-ndi-la-mu-ziika	ná-ndi-lá-ba-ziika	ná-ndi-la-mú-biika	ná-ndi-lá-ba-biika
3	ná-ndi-la-mu-wambila	ná-ndi-lá-ba-wambila	ná-ndi-la-mú-hupula	ná-ndi-lá-ba-hupula
4	ná-ndi-la-mu-ñatawula	ná-ndi-lá-ba-ñatawula	ná-ndi-la-mú-babalela	ná-ndi-lá-ba-babalela

na*-SM-*la*-OM-Root-*a

Table C.8: Dissociative (posthodiernal) future + object marker

C.7.2 Posited input H on second root syllable

Syll	Ø Root Ø OM	Pattern	Ø Root H OM	Pattern
1	mu-nyê	L-**HL**	chi-nyê	L-**HL**
2	mu-sáke	L-**H**-**L**	ba-sáke	L-**H**-**L**
2L	mu-zîke	L-**HL**-L	ba-zîke	L-**HL**-L
3	mu-wámbile	L-**H**-**L**-L	ba-wámbile	L-**H**-**L**-L
4	mu-ñátawule	L-**H**-**L**-L	ba-nátawule	L-**H**-**L**-L-L

Syll	H Root Ø OM	Pattern	H Root H OM	Pattern
1	mú-pe	H-**L**	ba-pê	L-**HL**
2	mú-bone	H-**L**-**L**	ba-bone	L-**L**-L
2L	mú-biike	H-**LL**-**L**	ba-biike	L-**LL**-L
3	mú-yembele	H-**L**-**L**-L	zi-yémbele	L-**H**-**L**-L
4	mú-babalele	H-**L**-**L**-**L**-L	ba-bábalele	L-**H**-**L**-L-L

OM-Root-*e*

Table C.9: 2sg imperative + object marker

Syll	Ø Root Ø OM	Pattern	Ø Root H OM	Pattern
1	mu-nyêni	L-**HL**-L	chi-nyêni	L-**HL**-L
2	mu-sákeni	L-**H**-**L**-L	ba-sákeni	L-**H**-**L**-L
2L	mu-zîkeni	L-**HL**-L-L	ba-zîkeni	L-**HL**-L-L
3	mu-wámbileni	L-**H**-**L**-L-L	ba-wámbileni	L-**H**-**L**-L-L
4	mu-ñátawuleni	L-**H**-**L**-L-L	ba-nátawuleni	L-**H**-**L**-L-L-L

Syll	H Root Ø OM	Pattern	H Root H OM	Pattern
1	mú-peni	H-**L**-L	ba-pêni	L-**HL**-L
2	mú-boneni	H-**L**-**L**-L	ba-boneni	L-**L**-**L**-L
2L	mú-biikeni	H-**LL**-**L**-L	ba-biikeni	L-**LL**-**L**-L
3	mú-yembeleni	H-**L**-**L**-L-L	zi-yémbeleni	L-**H**-**L**-L-L
4	mú-babaleleni	H-**L**-**L**-**L**-**L**-L	ba-bábaleleni	L-**H**-**L**-L-L-L

OM-Root-*eni*

Table C.10: 2pl imperative + object marker

Syll	Ø Root Ø OM	Pattern	Ø Root H OM	Pattern
1	mu̲-ndi-nyȇ	L̲-L-**H**-**L**	mu̲-chi-nyȇ	L̲-L-**HL**
2	mu̲-ndi-sáke̲	L̲-L-**H**-**L**	mu̲-ba-sáke̲	L̲-L-**H**-**L**
2L	mu̲-ndi-zȋke̲	L̲-L-**HL**-**L**	mu̲-ba-zȋke̲	L̲-L-**HL**-**L**
3	mu̲-ndi-wámbi̲le	L̲-L-**H**-**L**-L	mu̲-ba̲-wámbi̲le	L̲-L-**H**-**L**-L
4	mu̲-ndi-ñáta̲wule	L̲-L-**H**-**L**-L-L	mu̲-ba̲-ñáta̲wule	L̲-L-**H**-**L**-L-L

Syll	H Root Ø OM	Pattern	H Root H OM	Pattern
1	mu̲-ndí-twe̲	L̲-H-**L**	mu̲-chi-twȇ	L̲-L-**HL**
2	mu̲-ndí-bo̲ne̲	L̲-H-**L**-L	mu̲-ba̲-bo̲ne	L̲-L-**L**-L
2L	mu̲-ndí-bi̲ike	L̲-H-**LL**-L	mu̲-ba̲-biike	L̲-L-**LL**-L
3	mu̲-ndí-hupu̲le	L̲-H-**L**-**L**-L	mu̲-ba̲-húpu̲le	L̲-L-**H**-**L**-L
4	mu̲-ndí-ba̲ba̲lele	L̲-H-**L**-**L**-L-L	mu̲-ba̲-bába̲lele	L̲-L-**H**-**L**-L-L

SM-OM-Root-*e*

Table C.11: Hortative (given here as 2pl) + object marker

Syll	Ø Root	H Root
1	ndi-nâ-lwi	ndi-nâ-li
2	ndi-na-lúka	ndi-ná-yasa
2L	ndi-na-zȋka	ndi-ná-biika
3	ndi-na-úkuta	ndi-ná-hupula
4	ndi-na-ñátawula	ndi-ná-babalela

SM-*na*-Root-*a/i*

Table C.12: Past -*na*-

Syll	Ø Root	H Root
1	ta-ndí-wi	ta-ndí-twi
2	ta-ndi-sáki	ta-ndí-hoha
2L	ta-ndi-zȋka	ta-ndí-biika
3	ta-ndi-úkuta	ta-ndí-yembela
4	ta-ndi-ñátawula	ta-ndí-babalela

ta*-SM-Root-*a/i/e

Table C.13: Non-completive negative

Syll	Ø Root	H Root
1	ta-ndi-nâ-lwi	ta-ndi-nâ-li
2	ta-ndi-na-mána	ta-ndi-ná-yasa
2L	ta-ndi-na-zîika	ta-ndi-ná-biika
3	ta-ndi-na-úkuta	ta-ndi-ná-hupula
4	ta-ndi-na-ñátawula	ta-ndi-ná-babalela

_ta_-SM-_na_-Root-_a/i/e_

Table C.14: Past/completive negative

Syll	Ø Root	H Root
1	ta-ndi-na-ká-wi	ta-ndi-na-ká-twi
2	ta-ndi-na-ka-mána	ta-ndi-na-ká-hoha
2L	ta-ndi-na-ka-zîika	ta-ndi-na-ká-laala
3	ta-ndi-na-ka-úkuta	ta-ndi-na-ká-hupula
4	ta-ndi-na-ka-ñátawula	ta-ndi-na-ká-babalela

_ta_-SM-_na-ka_-Root-_a/i/e_

Table C.15: Dissociative (prehodiernal) past negative

Syll	Ø Root	H Root
1	ta-ndí-chi-yi	ta-ndí-chi-twi
2	ta-ndí-chi-sáki	ta-ndí-chi-yasa
2L	ta-ndí-chi-zîika	ta-ndí-chi-bîika
3	ta-ndí-chi-úkuta	ta-ndí-chi-húpula
4	ta-ndí-chi-ñátawula	ta-ndí-chi-bábalela

_ta_-SM-_chi_-Root-_a/i/e_

Table C.16: Persistive -_chi_- 'still' negative

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1			ná-mu-mú-lye	ná-mu-zi-lyê
2	ná-mu-mu-sáke	ná-mu-ba-sáke	ná-mu-mú-yase	ná-mu-zi-hohe
2L	ná-mu-mu-zîke	ná-mu-ba-zîke	ná-mu-mú-biike	ná-mu-zi-biike
3	ná-mu-mu-wámbile	ná-mu-ba-wámbile	ná-mu-mú-hupule	ná-mu-zi-yémbele
4	ná-mu-mu-ñátawule	ná-mu-ba-ñátawule	ná-mu-mú-babalele	ná-mu-zi-bábalele

na*-SM-OM-Root-*e

Table C.17: Dissociative (posthodiernal) future hortative + object marker

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1			ta-ndí-chi-mú-pi (ta-ndí-chi-mú-yasa)	ta-ndí-chi-ba-pi (ta-ndí-chi-ba-yasa)
2	ta-ndí-chi-mu-sáki	ta-ndí-chi-ba-sáki		
2L	ta-ndí-chi-mu-zîka	ta-ndí-chi-ba-zîka		
3	ta-ndí-chi-mu-wámbila	ta-ndí-chi-ba-wámbila	ta-ndí-chi-mú-hupula	ta-ndí-chi-ba-húpula
4			ta-ndí-chi-mú-bábalela	ta-ndí-chi-ba-bábalela

ta*-SM-*chi*-OM-Root-*a/i/e

Table C.18: Persistive -*chi*- 'still' negative + object marker

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1	ta-ndi-mú-nyi	ta-ndí-chi-nyi	ta-ndi-mú-pi	ta-ndí-ba-pi
2	ta-ndi-mu-sáki	ta-ndí-ba-sáki	ta-ndí-mú-suwa	ta-ndí-ba-suwa
2L	ta-ndi-mu-zííka	ta-ndí-ba-zííka	ta-ndí-mú-biika	ta-ndí-ba-biika
3	ta-ndi-mu-wámbila	ta-ndí-ba-wámbila	ta-ndí-mú-hupula	ta-ndí-ba-húpula
4	ta-ndi-mu-ñátawula	ta-ndí-ba-ñátawula	ta-ndí-mú-babalela	ta-ndí-ba-bábalela

ta-SM-OM-Root-*a/e/i*

Table C.19: Non-completive negative + object marker

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1	ta-ndi-na-ka-mú-ni	ta-ndi-na-ká-chi-ni	ta-ndi-na-ka-mú-pi	ta-ndi-na-ká-ba-pi
2	ta-ndi-na-ka-mu-mánà	ta-ndi-na-ká-chi-mána	ta-ndi-na-ka-mú-yasa	ta-ndi-na-ká-ba-yasa
2L	ta-ndi-na-ka-mu-zííka	ta-ndi-na-ká-ba-zííka	ta-ndi-na-ka-mú-biika	ta-ndi-na-ká-ba-biika
3	ta-ndi-na-ka-mu-wámbila	ta-ndi-na-ká-ba-wámbila	ta-ndi-na-ka-mú-hupula	ta-ndi-na-ká-ba-húpula
4	ta-ndi-na-ka-mu-ñátawula	ta-ndi-na-ká-ba-ñátawula	ta-ndi-na-ka-mú-babalela	ta-ndi-na-ká-ba-bábalela

ta-SM-*na-ka*-OM-Root-*a/i/e*

Table C.20: Dissociative (prehodiernal) past negative + object marker

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1			talí ꜜná-ndi-mú-twe	talí ꜜná-ndi-zi-twê
2	talí ꜜná-ndi-mu-sáke	talí ꜜná-ndi-ba-sáke	talí ꜜná-ndi-mú-yase	talí ꜜná-ndi-ba-yase
2L	talí ꜜná-ndi-mu-zíike	talí ꜜná-ndi-ba-zíike	talí ꜜná-ndi-mú-biike	talí ꜜná-ndi-ba-biike
3	talí ꜜná-ndi-mu-wámbile	talí ꜜná-ndi-ba-wámbile	talí ꜜná-ndi-mú-hupule	talí ꜜná-ndi-ba-húpule
4	talí ꜜná-ndi-mu-ñátawule	talí ꜜná-ndi-ba-ñátawule	talí ꜜná-ndi-mú-babalele	talí ꜜná-ndi-ba-bábalele

talí *na*-SM-OM-Root-*e*

Table C.21: Dissociative (posthodiernal) future negative + object marker

C.7.3 Posited input H on final vowel, surfacing on penult (with plateauing)

Syll	Ø Root	Pattern	H Root	Pattern
1	wâ	**HL**	pâ	**HL**
2	sáka	**H-L**	bóna	**H-L**
2L	zîka	**HL-L**	súùka	**HL-L**
3	ukúta	**L-H-L**	halíka	**L-H-L**
4	ñatawúla	**L-L-H-L**	babaléla	**L-L-H-L**

Root-*a*

Table C.22: 2sg imperative

Syll	Ø Root	Pattern	H Root	Pattern
1	wêni	**HL-L**	syêni	**HL-L**
2	sákeni	**H-L-L**	yáseni	**H-L-L**
2L	zîkeni	**HL-L-L**	súùkeni	**HL-L-L**
3	ukúteni	**L-H-L-L**	halíkeni	**L-H-L-L**
4	ñatawúleni	**L-L-H-L-L**	babaléleni	**L-L-H-L-L**

Root-*eni*

Table C.23: 2pl imperative

Syll	Ø Root	H Root
1	ka-tu-lwâ	ka-tu-twâ
2	ka-tu-sáka	ka-tu-yása
2L	ka-tu-zîka	ka-tu-bîka
3	ka-tu-ukúta	ka-tu-hupúla
4	ka-tu-ñatawúla	ka-tu-babaléla

ka*-SM-Root-*a

Table C.24: Dissociative (prehodiernal) imperfective

Syll	Ø Root	H Root
1	ta-ká-tu-lwâ	ta-ká-tu-twâ
2	ta-ká-tu-sáka	ta-ká-tu-yása
2L	ta-ká-tu-zîika	ta-ká-tu-bîika
3	ta-ká-tu-ukúta	ta-ká-tu-hùpúla
4	ta-ká-tu-ñatawúla	ta-ká-tu-babaléla

ta-ka-SM-Root-a

Table C.25: Dissociative (prehodiernal) imperfective negative

Syll	Ø Root	H Root
1	na-ndi-lwâ	na-ndi-lyâ
2	na-ndi-mána	na-ndi-hóha
2L	na-ndi-zîika	na-ndi-láàla
3	na-ndi-lawúka	na-ndi-yembéla
4	na-ndi-ñatawúla	na-ndi-babaléla

na-SM-Root-a

Table C.26: Situative

Syll	Ø Root	H Root
1	ná-mu-lwê	ná-mu-lyê
2	ná-mu-máne	ná-mu-hóhe
2L	ná-mu-zîike	ná-mu-bîike
3	ná-mu-ukúte	ná-mu-yembéle
4	ná-mu-ñatawúle	ná-mu-tandabále

na-SM-Root-e

Table C.27: Dissociative (posthodiernal) future hortative

Syll	Ø Root	H Root
1	ndi-chi-lwâ	ndi-chi-twâ
2	ndi-chi-mána	ndi-chi-yása
2L	ndi-chi-zîîka	ndi-chi-bîîka
3	ndi-chi-ukúta	ndi-chi-hupúla
4	ndi-chi-ñatawúla	ndi-chi-babaléla

SM-*chi*-Root-*a*

Table C.28: Persistive -*chi*- 'still'

Syll	Ø Root	H Root
1	ndi-wâ	ndi-lyâ
2	ndi-sáka	ndi-yása
2L	ndi-zîîka	ndi-bîîka
3	ndi-tobéla	ndi-yembéla
4	ndi-ñatawúla	ndi-babaléla

SM-Root-*a*

Table C.29: Non-completive relative clause

Syll	Ø Root	H Root
1	nda-wâ	nda-lyâ
2	nda-sáka	nda-yása
2L	nda-zîîka	nda-bîîka
3	nda-tobéla	nda-yembéla
4	nda-ñatawúla	nda-babaléla

SM-*a*-Root-*a*

Table C.30: Completive relative clause

Syll	Ø Root	H Root
1	ká-ndi-wâ	ká-ndi-lyâ
2	ká-ndi-sáka	ká-ndi-yása
2L	ká-ndi-zîika	ká-ndi-bîika
3	ká-ndi-tobéla	ká-ndi-yembéla
4	ká-ndi-ñatawúla	ká-ndi-babaléla

ka-SM-Root-a

Table C.31: Dissociative (prehodiernal) imperfective relative clause

Syll	Ø Root	H Root
1	nda-ka-wâ	nda-ká-lya
2	nda-ka-sáka	nda-ká-yasa
2L	nda-ka-zîika	nda-ká-biika
3	nda-ka-tobéla	nda-ká-yembéla
4	nda-ka-ñatawúla	nda-ká-babaléla

SM-a-ka-Root-a

Table C.32: Dissociative (prehodiernal) past relative clause

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
2	ndi-chi-mu-sáka	ndi-chi-ba-sáka	ndi-chi-mú-yasa	ndi-chi-ba-yása
2L	ndi-chi-mu-zîka	ndi-chi-ba-zîka	ndi-chi-mú-biika	ndi-chi-ba-bîika
3	ndi-chi-mu-wambíla	ndi-chi-ba-wambíla	ndi-chi-mú-hupúla	ndi-chi-ba-hupúla
4	ndi-chi-mu-ñatawúla	ndi-chi-ba-ñatawúla	ndi-chi-mú-babaléla	ndi-chi-ba-babaléla

SM-*chi*-OM-Root-*a*

Table C.33: Persistive -*chi*- 'still' + object marker

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1			na-ndi-mú-twa	na-ndi-ba-twâ
2	na-ndi-mu-sáka	na-ndi-ba-sáka	na-ndi-mú-yasa	na-ndi-ba-yása
2L	na-ndi-mu-zîka	na-ndi-ba-zîka	na-ndi-mú-biika	na-ndi-ba-bîika
3	na-ndi-mu-wambíla	na-ndi-ba-wambíla	na-ndi-mú-hupúla	na-ndi-ba-hupúla
4	na-ndi-mu-ñatawúla	na-ndi-ba-ñatawúla	na-ndi-mú-babaléla	na-ndi-ba-babaléla

na*-SM-OM-Root-*a

Table C.34: Situative + object marker

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1	nda-ka-mu-nyâ	nda-ká-chi-nyâ	nda-ka-mú-pa	nda-ká-ba-pâ
2	nda-ka-mu-sáka	nda-ká-ba-sáka	nda-ka-mú-bonâ	nda-ká-ba-bóna
2L	nda-ka-mu-zíka	nda-ká-ba-zíka	(nda-ka-mú-biika)	(nda-ká-ba-bîika)
3	nda-ka-mu-tobéla	nda-ká-ba-tobéla	nda-ka-mú-yembéla	nda-ká-ba-yèmbèla
4	nda-ka-mu-ñatawúla	nda-ká-ba-ñatawúila	nda-ka-mú-babaléla	nda-ká-ba-babaléla

SM-*a-ka*-OM-Root-*a*

Table C.35: Dissociative (prehodiernal) past relative clause + object marker

Syll	Ø Root	H Root
1	talí 'nándilwê	talí 'nánditwê
2	talí 'nándimáne	talí 'nándiyáse
2L	talí 'nándizíike	talí 'nándibíike
3	talí 'nándiukúte	talí 'nándihupúle
4	talí 'nándiñatawúle	talí 'nándibabaléle

tali na*-SM-Root-*e

Table C.36: Dissociative (posthodiernal) future negative

C.7.4 Other patterns

Other patterns observed involve relative clauses with distal *-ka-*, which manifest falling tones on the syllable preceding distal *-ka-*. Stems following distal *-ka-* appear to take their lexical input tones (shifting one syllable to the left) and not relative clause tones. One consultant accepted (and also produced) a set of alternate forms with relative clause tone following distal *-ka-* (e.g. *ndàkâkàwáàna*; other consultants judged these as less correct. The first consultant also produced alternate forms with *-bona* 'see' that ended with *bonâ* rather than toneless *bona*. This pattern – along with its lexical distribution possibilities – is poorly understood and needs further study.

Syll	Ø Root	H Root
1	ndâ-ka-wa	ndâ-ká-lya
2	ndâ-ka-saka	ndâ-ká-yasa
2L	ndâ-ka-ziika	ndâ-ká-biika
3	ndâ-ka-tobéla	ndâ-ká-yembela
4	ndâ-ka-ñatawula	ndâ-ká-babalela

SM-*a*-*ka*(dist)-Root-*a*

Table C.37: Distal completive relative clause

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1	ndâ-ka-mu-nya	ndâ-ká-chi-nya	ndâ-ka-mú-pa	ndâ-ká-ba-pa
2	ndâ-ka-mu-saka	ndâ-ká-ba-saka	ndâ-ka-mú-bona	ndâ-ká-ba-bona
2L	ndâ-ka-mu-ziika	ndâ-ká-ba-ziika	ndâ-ka-mú-biika	ndâ-ká-ba-biika
3	ndâ-ka-mu-ñatawula	ndâ-ká-chi-ñatawula	ndâ-ka-mú-yembela	ndâ-ká-ba-yembela
4	ndâ-ka-mu-ñatawula	ndâ-ká-chi-ñatawula	ndâ-ka-mú-babalela	ndâ-ká-ba-babalela

SM-*a-ka*(dist)-OM-Root-*a*

Table C.38: Distal completive relative clause + object marker

Syll	Ø Root Ø OM	Ø Root H OM	H Root Ø OM	H Root H OM
1	ba-ka-ka-mu-nya	ba-kâ-ká-ba-nya	ba-ka-ka-mú-pa	ba-kâ-ká-ba-pa
2	ba-ka-ka-mu-saka	ba-kâ-ká-ba-saka	ba-ka-ka-mú-bona	ba-kâ-ká-ba-bona
2L	ba-ka-ka-mu-ziika	ba-kâ-ká-ba-ziika	(ba-kâ-ka-mú-biika)	(ba-kâ-ká-ba-biika)
3	ba-ka-ka-mu-tobela	ba-kâ-ká-ba-tobela	ba-ka-ka-mú-yembela	ba-kâ-ká-ba-yembela
4	ba-kâ-ka-mu-ñatawula	ba-kâ-ká-ba-ñatawula	ba-ka-ka-mú-babalela	ba-kâ-ká-ba-babalela

SM-*ka*(prehod)-*ka*(dist)-OM-Root-*a*

Table C.39: Distal dissociative (prehodiernal) past relative clause + object marker

Appendix D

Agreement forms

Bantu languages are known for their noun-class systems and alliterative agreement. This appendix gives basic information about person and noun class agreement in Totela. Note that the third-person singular and plural forms are identical to the class 1(a) and 2(a) forms, respectively.

In this appendix, unlike in the rest of the study, noun class prefixes are separated from the noun stem by a hyphen to make the prefixes more immediately apparent.

The table in (539) lists the noun classes found in Totela, giving examples from and comments on each.

(539) Noun classes in Totela

Class	Prefix	Examples	Comments
1	(o)mu-	òmùntù 'person' òmú'kwáámè 'man' òmùlìmì 'farmer' òmúbwà 'dog'	people and dogs (sg.)
1a	—	Kelvin Sishau nàlùntàmbwè 'chameleon'	proper names (sg.); many animals (originally from personification)
2	(a)ba-	àbàntù 'people' àbá'kwáámè 'men' àbàlìmì 'farmers' àbábwà 'dogs'	people (pl. of class 1)
2a	ba-	baKelvin 'Mr. Kelvin; Kelvin's family' banàlùntàmbwè 'chameleons'	pl. and respect form of class 1a
3	(o)mu-	òmùbùyù 'baobab' òmúsèkè 'hot ashes' òmúmbà 'fishing spear' òmùlóngà 'river'	many kinds of trees and plants; long things (?) nat. phenomena(?) (sg. and mass nouns)

Class	Prefix	Examples	Comments
4	(e)mi -	èmìbùyù 'baobabs' èmìyúmbà 'fishing spears'	pl. of class 3
5	i-/(e)li-	ìlíndì 'hole' èlìnhù 'potter wasp'	also used as augmentative (sg.)
6	(a)ma-	àmàlíndì 'holes' àmànhù 'potter wasps' àmàbísì 'sour milk'	pl. of class 5 (and some- times 1, 9, 11, 14, and 15); liquids; some abs. concepts
7	(e)chi-	èchìyùnì 'bird' èchídàkwà 'drunkard' èchìzìngìsò 'hair-curling needle'	used for objects in general, tools, and as a pejorative prefix (for things deemed bad or very strong (sg.)
8	(e)zhi-	èzìyùnì 'birds' èzídàkwà 'drunkards' èzìzìngìsò 'hair-curling needles'	pl. of class 7 (and some- times (alternate) pl. of class 11)
9	iN-	ìnzòkà 'snake' ímpàsù 'grasshopper' íntómbwè 'tobacco'	animals, fruits, and general (sg.)
10	iN-	ìnzòkà 'snakes' ímpàsù 'grasshoppers'	pl. of class 9 (and sometimes of class 11)
11	(o)lu-	òlúzùkì 'bee' òlùwózì 'rope'	(sg.)
12	(a)ka-	àkàmàlè 'squirrel, dormouse' àkàchèmbèlè 'decrepit old person'	small things; used as diminutive and pejorative
13	(o)tu-	òtùchèmbèlè 'decrepit old people' òtùbísì 'a few drops ' of sour milk'	pl. of class 12; also used to indicate small quantities of mass nouns
14	(o)bu-	òbúkòkò 'beer' òb'usúkù 'loneliness'	some liquids; abstract qualities; prefixes to verbs to indicate manner
15	(o)ku-	òkútwì 'ear' òkùsàkà 'to want'	verbal infinitives and a few nouns
16	a-	àmùnzì 'in/at/by the village' (òmùnzì cl.3)	locative prefix (attaches to augmentless noun prefix)
17	ku-	kùmùnzì 'to/at the village'	locative prefix (attaches to augmentless noun prefix)
16	mu-	mùmùnzì 'in the village'	locative prefix (attaches to augmentless noun prefix)

Figure D.1 indicates attested singular/plural noun class pairings in Totela.
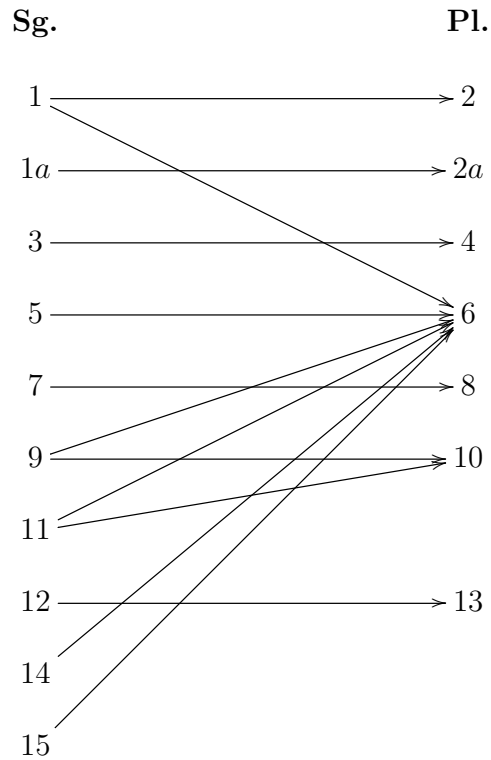

Figure D.1: Attested sg./pl. noun class pairings

Examples (540)–(549) illustrate several features of the noun class agreement system. (540) shows adjunct agreement with class 7 noun *èchìyùnì* 'bird'

(540) *ndìsàkà chílyà èchìyùní chènú èchílòtù*

ndi-sak-a **chi**lya **echi**-yuni **ch**enu **echi**-lotu
1SG-want-FV CL7.DEM **cl7**-bird CL7.POSS.2PL CL7-good

'I want that good bird of yours'

(541) shows the subject agreeing with the verb and its modifiers.

(541) *èchìyùní ꜜchángú èchíbì chàùlùkàwô*

echi-yuni **ch**angu **echi**-bi **cha**-uluk-a-wo
CL7-bird CL7.POSS.1SG CL7-bad CL7.CMPL-fly-FV-CL16(loc)

'my bad bird flew away'

(542) and 543 show agreement with a locative prefix.

(542) *kùmùnzì kùlátwìwà*

ku-mu-nzi   **ku**-la-tu-iw-a
CL17(LOC)-CL3-village CL17(LOC)-NONCMPL-pound-PASS-FV

'pounding is going on in (at) the village' (NB: applicative extension sometimes also inserted here)

(543) *kùnò kúlòtù*

kuno   **ku**-lotu
CL17(LOC).DEM COP.CL17(LOC)-good

'it's nice here'

When a locative prefix attaches to a noun of location, as in (544), modifiers agree with the noun, and not the locative prefix.

(544) *ìná kùbúbàlìbwêtáfùlè*

i-ina   **ku-bu**-bali   **bw**etafule
CL9-be.located CL17(LOC)-CL14-corner CL14.POSS.CL5.table

'it (here: the cup) is on (at) the corner of the table'

Example (545) shows that agreement is sometimes semantic. Class 6 *àmàkúwà* 'white people' takes class 2(a)/3pl agreement, likely because almost all human nouns are in class 1(a) and 2(a).

(545) *àmàkúwà bàlàwàmbà*

ama-kuwa   **ba**-la-wamb-a
CL6-white.person CL2-NONCMPL-speak-FV

'the white people are talking' (sg: òmù-kúwà (cl1); pl: àmà-kúwà (cl6))

Many animals take class 1a/2a agreement. Their apparent prefixes have been reanalyzed as part of the stem, and the plural forms are prefixed with class 2a prefix *ba-*. An example is given in (546).

(546)   a. *chìkwàngálà àlàùlùkà*

         ø-chikwangala   **a**-la-uluk-a
         CL1A-pied.crow CL1A-pres-fly-fv

         'the pied crow is flying' (*chi-* looks like the class 7 prefix)

b. *bàchìkwàngálà bàlàùlùkà*

bà-chikwangala **ba**-la-uluk-a

CL2A-pied.crow CL2A-pres-fly-fv

'the pied crows are flying'

The class 2a prefix *ba-* is also often used with singular nouns as a sign of respect, as in (547); all agreement treats the noun as class 2a.

(547) *bàSishau tàbàsákì èchìsìyù*

ba-Sishau   ta-**ba**-sak-i   echi-siyu

CL2A-Sishau NEG-CL2A-want-FV.NEG CL7-cooked.greens

'(Mr.) Sishau doesn't want cooked greens'

In a system such as Totela's with many noun classes, the issue of resolving agreement with conjoined NPs must be resolved. (548) shows that when two nouns of the same class are conjoined, agreement takes the plural class associated with the class of those nouns.

(548) *òmúᵏkwáàmé nòmwánàkázì bàl'ayèndà*

omu-kwaame na-**omu**-anakazi **ba**-la-yend-a

CL1-man   com-CL1-woman CL2-NONCMPL-walk-FV

'the man and the woman walk'

When two non-animate nouns from different classes are conjoined, agreement usually takes the *zi-* form of class 10 (and class 7).

When a human noun and a non-human noun are conjoined, as in (549), speakers varied in their agreement pattern, as is discussed in the example. Some speakers chose class 2 agreement (privileging the human); others chose class 10 (privileging the non-human). This is an issue for further investigation. In general, though, it should be noted that speakers tend to side-step the conflict entirely by treating the non-human noun (especially when inanimate) as an adjunct rather than a conjoined subject, as in English 'the man walks with the cow'.

(549) *òmúᵏkwáàmé nèñòmbè bàlàyèndà*

omu-kwaame na-**iñ**ombe   **ba**-la-yend-a

cl1-man   com-**cl9**.cow **cl2**-pres-walk-fv

'the man and the cow walk' (also apparently acceptable: cl1 + cl9 = cl. 10 – the plural of class 9 and the default plural)

The remaining tables show agreement paradigms for persons (subject markers in table D.1; object markers in D.2; possessive stems in D.3) and for the noun-class system (D.4), which lists for each noun class the prefix, subject marker, object marker, possessive prefix (or connective), possessive stem, numeral prefix, adjective prefix, 'which' form, copular possessive form, and two demonstrative forms. Only a small portion of the extremely complex demonstrative system is given in this table.

	Singular	Plural
1	ndi-	tu-
2	u-	mu-
3	a-	ba-

Table D.1: Totela person subject markers

	Singular	Plural
1	-ndi-	´tu-
2	-ku-	´mi-
3	-mu-	´ba-

Table D.2: Totela person object markers

	Singular	Plural
1	´ángù-	´èsù-
2	´ákò-	´ênù-
3	`àkwê-	´àbò-

Table D.3: Totela person possessive stems

Table D.4: Noun class agreement paradigms

NC	Prefix	SM	OM	Poss Pref	Poss	Num Pref	Adj Pref	Which?	Dem1	Dem2	Cop Poss
1	(o)mu-	a-	-mu-	u-	ᴴàkwê	e-	omu-	ywîbô	òyù	yùlyà	ndí'wángù
1a	∅	a-	-mu-	u-	ᴴàkwê	e-	omu-	ywîbô	òyù	yùlyà	ndí'wángù
2	(a)ba-	ba-	-ba-	ba-	ᴴàbô	bo-	aba-	bêbô	àbà	bàlyà	(m)bá'bángù
2a	(a)ba-	ba-	-ba-	ba-	ᴴàbô	bo-	aba-	bêbô	àbà	bàlyà	(m)bá'bángù
3	(o)mu-	u-	-mu-	u-	ᴴàwô	wo-	omu-	wîbô	òwù	wùlyà	ngú'wángù
4	(e)mi-	i-	-i-	i-	ᴴàyô	yo-	emi-	yîbô	èyì	ìlyà	ndí'yángù
5	i-/(e)mi-	li-	-li-	li-	ᴴàlô	lyo-	i-	lîbô	èlì	lìlyà	ndí'lyángù
6	(a)mi-	a-	-a-	a-	ᴴàwô	o-	ama-	êbô	àwà	àlyà	ngá'angù
7	(e)chi-	chi-	-chi-	chi-	ᴴàchô	cho-	chi-	chîbô	èchì	chìlyà	chí'chángù
8	(e)zi-	zi-	-zi-	zi-	ᴴàzô	zo-	zi-	zîbô	èzì	zìlyà	zí'zángù
9	iN-	i-	-i-	i-	ᴴàyô	yo-	iN-	yîbô	èyì	ìlyà	njí'yángù
10	iN-	zi-	-zi-	zi-	ᴴàzô	zo-	iN-	zîbô	èzì	zìlyà	zí'zángù
11	(o)lu-	lu-	-lu-	lu-	ᴴàlô	lo-	olu-	lwîbô	òlù	lùlyà	ndú'lwángù
12	(a)ka-	ka-	-ka-	ka-	ᴴàkò	ko-	aka-	kêbô	àkà	kàlyà	ká'kángù
13	(o)tu-	tu-	-tu-	tu-	ᴴàtô	to-	otu-	twîbô	òtù	tùlyà	tú'twángù
14	(o)bu-	bu-	-bu-	bu-	ᴴàbô	bo-	obu-	bwîbô	òbù	bùlyà	(m)bú'bwángù
15	(o)ku -	ku-	ꞌku-*	ku-/u-*	ᴴàkô*	(e-/ko-)*	oku-	kwîbô	òyù	yùlyà	kú'kwángù
16	a-	a-	=wô	(a-)**	**	**	pa-	êbô	ànò	àlyà	pá'angù
17	ku-	ku-	=kô	(ku-)**	**	**	ku-	kwîbô	kùnò	kùlyà	kú'kwángù
18	mu-	mu-	=mô	(mu-)**	**	**	mu-	mwîbô	mùnò	mùlyà	mú'mwángù

*Non-infinitive nouns seem to resist being in class 15, which is overwhelmingly the class of verbal infinitives. Infinitives act like nouns in many ways but do not participate in all kinds of agreement. Non-infinitive class 15 nouns often co-opt class 1 agreement markers, either optionally or obligatorily (or at least strongly preferred). This table gives a partial picture of the class 15 agreement issues.

**The locative classes (16-18) are resistant to many kinds of agreement. They surface as suffixes rather than verb-internal object markers, and have limited distribution in possessive contexts, with their agreement sometimes defaulting to class 16.

Appendix E

Research participants

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