

Resultatives, Remoteness, and Innovation in Eastern and Southern Bantu T/A Systems¹

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ABSTRACT

Bantu language T/A systems often present challenging analytical conundrums, as is the case, for example, with languages in eastern zones F and S, whose systems are representative of the kinds of contrasts found across the Bantu landscape. In several cases, languages in the different zones resemble one another more than they do languages in the same zone. Working within the scaled dissociative domain temporal model proposed in Botne and Kershner (2008) and Botne (2010, 2012), the author provides an explanation for why this striking variation occurs. The paper addresses several specific issues: (1) how a remote construction can become a resultative; (2) why similar, or even identical, remote forms in Kirangi dialects are conceptually distinct; and (3) why several forms are temporally reversed in some languages. Innovation that has led to the peculiar differences observed finds an explanation and motivation in differences in time scales, time regions, and time scope.

Keywords: Bantu, tense, dissociative domain model, diachronic change.

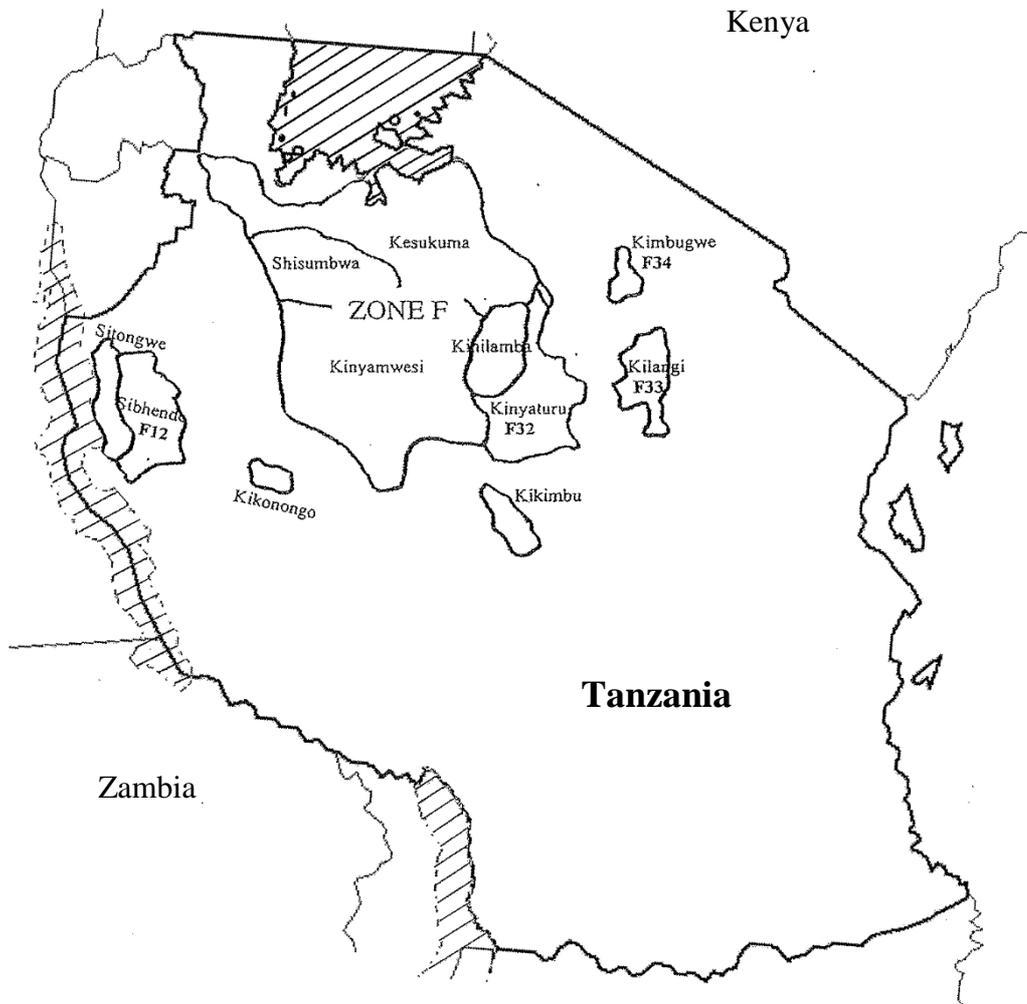
1. INTRODUCTION

Bantu language tense/aspect systems often present challenging analytical conundrums, as is the case, for example, with languages in zones F and S, whose systems are representative of the kinds of contrasts found across the Bantu landscape. First, as can be observed in Table 1, tense/aspect constructions in several F and S languages resemble one another more than they do those of their geographical neighbors. Hence, for example, Sibhende (F12) and Ikalanga (S16) exhibit comparable Resultative, Hodiernal, and Remote past forms that differ from those for the languages in (b) and (c), just as the relevant constructions in Kimbugwe (F34) and Isizulu (S42) resemble each other more than they do those of their neighbors. Second, the dialects and languages in (b) exhibit a puzzling reversal of forms and temporal ranges (in bold outlined box), such that the Kondoa dialect of Kilangi (F33) resembles Kinyaturu (F32) more than it does the more closely related Mondo dialect. Yet, in Xironga (S54) and Isizulu, we find only one of the forms, but not the same one, in the two languages. Third, in the Kondoa dialect of Kilangi and in Kinyaturu we find a non-continuous “split” of the -IRE

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forms, reflected as well in Ikalanga RSLT and REM, counter Comrie's (1985) proposal that a possible universal of tense systems is that “time reference of each tense is a continuity”.

Map 1. Zone F language distribution.



Working within the multi-dimensional dissociative model proposed in Botne and Kershner (2008) and Botne (2010, 2012), I provide a motivated explanation for why this striking variation can occur. In particular, the paper addresses several specific issues: (1) how a remote construction, such as that in Ikalanga (a), can have a resultative reading (a semantic path not mentioned by Bybee et al. 1994), contrasting this with the remote/resultative split in Kinyaturu (b), and why they are not counterexamples to Comrie's proposal; (2) why the similar REM *-IRE* forms in Kondoa and Kinyaturu are conceptually distinct; (3) why the identical REM₂ forms in the Bolisa and Mondo dialects are conceptually distinct; and (4) why the HOD, pre-HOD, and REM forms in Kinyaturu and Kimbugwe are reversed.

Table 1. Tense/aspect forms in some zone F and S language.²

		P4 - REM ₂	P3 - REM	P2 - pre-HOD	P1 - HOD	RSLT
a.	F12 Sibhende			-a-ká-B-a	-a-B-a	-Ø-B-ílé
	S16 Ikalanga		-á-ká-B-a		-á-B-a	-Ø-B-ile -á-ka-B-a
b.	F33 Kilangi: Bolisa	-a-B-áa		-á-B-iré		-a-B-ire
	Mondo	-a-B-áa	-a-B-á	-á-B-iré		-a-B-ire
	Kondoa	-a-B-á	-a-B-ire	-a-B-á		-a-B-ire
	F32 Kinyaturu		-a-B-ié	-á-B-aa	-á-B-a	-Ø-B-ie
	F34 Kimbugwe		-áa-B-á	-áa-B-íye		-Ø-B-iyé
c.	S54 Xironga			-a-B-ile		-Ø-B-ile
	S42 Isizulu		-áa-B-a		-Ø-B-il ₂ e	-Ø-B-il ₁ e

Nearly all of the languages exhibit a contrast between $-\text{Ø-B-ILE}$ and $-A-B-A$ constructions (where B denotes verb base); some have lost one or the other. Hence, the analysis presumes an early Bantu contrast between resultative $-\text{Ø-B-ILE}$ and perfect $-A-B-A$. Innovation that has led to the peculiar differences pointed out above finds an explanation and motivation in differences in time scale involved (e.g., hours, days, years), time regions (current or distal), and time scope (i.e., the mental “worlds” or domains indicated). Thus, for example, we will see that Kondoa only superficially distinguishes four tenses, a consequence of a simple linear analysis. Rather, the *-ire* forms denote a Current Time Region, the *-á* forms a Distal Time Region, the remoteness distinction deriving from an implicit difference in time scales of use, days vs. years.

2. THE MULTI-DIMENSIONAL DISSOCIATIVE MODEL

The typical approach to representing (remote) tense distinctions is to organize them in terms of a linear timeline. Not only is this approach oversimplified, it fails to capture significant differences in “tense” forms. The multi-dimensional dissociative model differs in key respects. First, it assumes two potential perspectives on the timeline, one in which temporal relations are expressed within the current “world” or P-domain (as in I in Figure 1), the other in which relations are expressed across domains (as in II in Figure 1). Second, the P-domain can be sub-divided into current and distal time regions (CurTR and DisTR, respectively),

² Abbreviations used:

	B	verb base/stem	E	event	PF	perfect
	CurTR	current time region	HOD	hodiernal	REM	remote
	DisTR	distal time region	N	nucleus	RSLT	resultative
					UT	utterance time

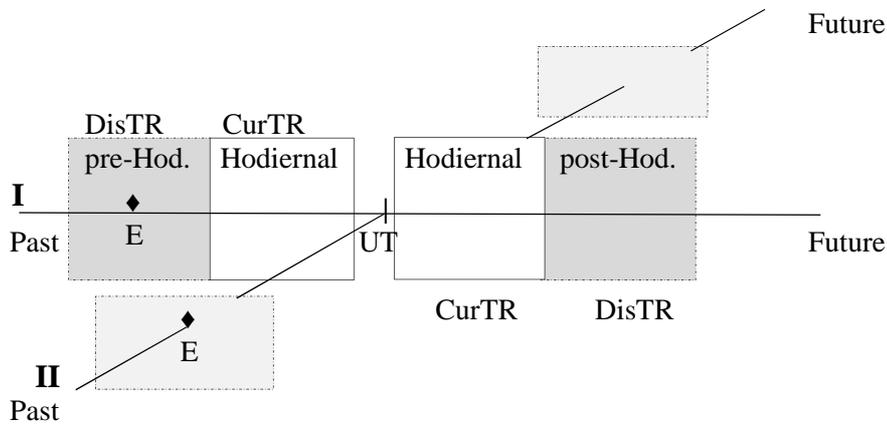
typically delimiting “today” from some interval prior to today. Third, these time regions may be scaled, so that different forms mark, for example, a scale of days in contrast with a scale of years. Some event E, then, can be expressed according to either one of the two perspectives. Thus, an event in the past could be expressed, for example, as occurring in the DisTR of the current P-domain, or in the past of the dissociated D-domain (see Figure 1). The former will be referred to as a tenor relation, the latter as tense.

Figure 1. Dissociative domain model representing time scope and time regions.

Complementary perspectives:

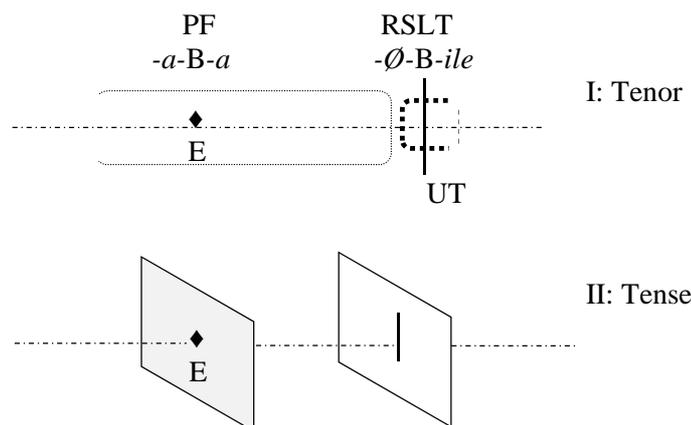
I relations within domains: Tenor

II relations across domains: Tense



Tensed forms in each Bantu language can be analyzed in terms of this model. Because we are concerned here with changes that have occurred in various languages, it is necessary to consider what forms existed initially. For the purposes of this paper, I assume that there were two relevant constructions in an earlier stage of Bantu, a Resultative (RSLT) $-\emptyset-B-ILE$ and a Perfect (PF) $-A-B-A$. These are illustrated in the dissociative framework shown in Figure 2, in which the two perspectives have been separated for ease of exposition. The resultative construction denoted a state at Utterance Time (UT) (dotted rectangle), while the perfect denoted a temporal interval (dashed rectangle) in which the event occurred prior to UT. Effectively, these were two aspects; no D-domain tense was marked.

Figure 2. Early stage of Bantu with two aspects: Resultative and Perfect.



Having delineated the initial type of system, we turn now to the systems in several zone F and S languages.

3. FROM “REMOTE” PAST TO RESULTATIVE: THE CASE OF -Á-KA-B-A IN IKALANGA

Sibhende and Ikalanga exhibit nearly identical forms for the resultative and two pasts.

Table 2. Resultative and past forms in Sibhende and Ikalanga.
[Data: Abe 2006, Schmidt 2007]

	P3 - REM	P2 - pre-HOD	P1 - HOD	RSLT
F12 Sibhende		<i>-a-ká-B-a</i>	<i>-a-B-a</i>	<i>-∅-B-ílé</i>
S16 Ikalanga	<i>-á-ka-B-a</i>		<i>-á-B-a</i>	<i>-∅-B-ile</i> <i>-á-ka-B-a</i>

They differ in that Ikalanga has two forms for the resultative: *-∅-B-ile* for posture verbs such as *lie* and *sit*, *-á-ka-B-a* for everything else (Schmidt 2007).

1) Ikalanga resultatives

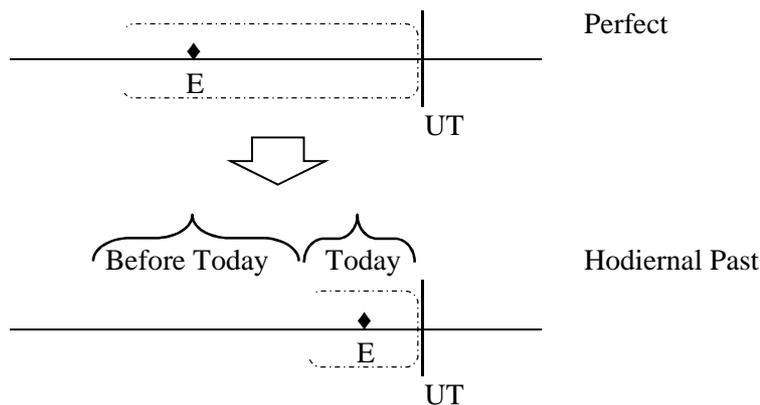
- a. *nkádzi ú-m-ile* ‘the woman is standing’
- b. *mwanáná w-á-ká-yézel-a* ‘the girl is asleep’

Of interest here is the fact that the second of the Ikalanga resultative constructions derives from a remote past, a shift not attested in Bybee et al. (1994) or Heine et al. (1993). A simple linear approach provides no satisfactory explanation as to how this could come about. Moreover, it does not hint at the different role played,

within each system, of the remote *-á-ká-B-a* forms. In contrast, the dissociative model does provide such an explanation.

The resultative in Sibhende is that assumed for early Bantu (see Figure 3). The perfect *-a-B-a*, however, now denotes a hodiernal (HOD) past. This common shift from perfect to hodiernal past is conceptually straightforward. The perfect denotes a temporal interval whose extent is determined by context. A present perfect is anchored at UT. When the temporal range becomes restricted semantically to the natural boundary of today, a hodiernal past is created.

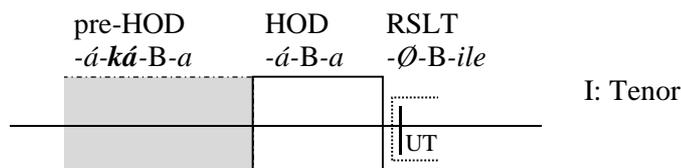
Figure 3. Perfect to Hodiernal past.



The addition of *-ká-* to the hodiernal form realizes a pre-hodiernal construction. In effect, Sibhende now has a distinction in time regions, a hodiernal CurTR vs. a pre-hodiernal DisTR (Figure 4). Note, in particular, that Sibhende does not mark a D-domain past tense.

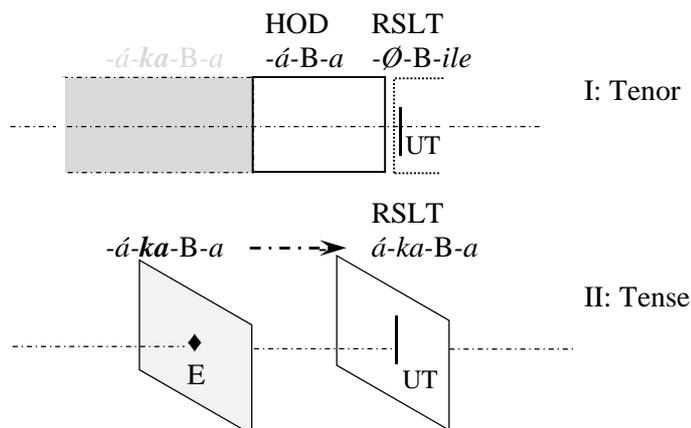
Figure 4. Analysis of Sibhende (F12) forms.

[Data: Abe 2006]



The analysis is similar for Ikalanga (S16), with one significant difference: The *-á-ká-B-a* construction is a marker of a D-domain past (see Figure 5). Whether this development is the result of a semantic shift from pre-Hodiernal past, as in Sibhende, or innovation directly as a D-domain past is not known. Crucially, however, the D-domain past has developed semantically a resultative use, as the examples in (2) attest, that is in complementary distribution with the *-Ø-B-ile* resultative.

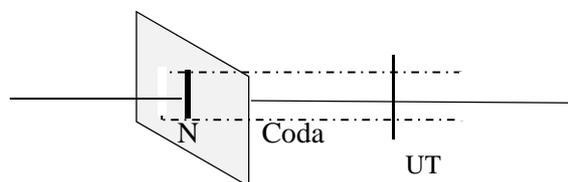
Figure 5. Analysis of Ikalanga (S16) forms.
[Data: Schmidt 2007]



- 2) a. *taté bángu b-á-ká-f-á múná 2001* ‘my father died in 2001’
 b. *b-á-ká-lóbbólán-a muná 1970* ‘they married in 1970’
- 3) a. *kólói y-á-ká-f-á* ‘the car is dead’ (i.e., beyond repair)
 b. *b-á-ká-lóbbólán-a* ‘they are married’

The shift from a remote past to resultative has, apparently, not been noted before. The path of change runs clearly through change-of-state verbs, such as “die” and “marry”. First, only verbs that encode a state in Ikalanga permit the resultative interpretation. More significantly, change-of-state verbs have ambiguous interpretations, as the DIE and MARRY examples in (2) and (3) illustrate. As with activity verbs, the nucleus of a change-of-state verb, i.e., the point at which the change occurs, can be indicated with the remote past (2). However, since the stative coda phase of a change-of-state verb is not restricted to the past and continues through UT, that time at UT determines a stative, or resultative, reading (3). These two potential readings can be observed in Figure 6. Activity verbs only permit the remote past reading.

Figure 6. Past and resultative readings of a change-of-state verb, e.g., ‘die’.



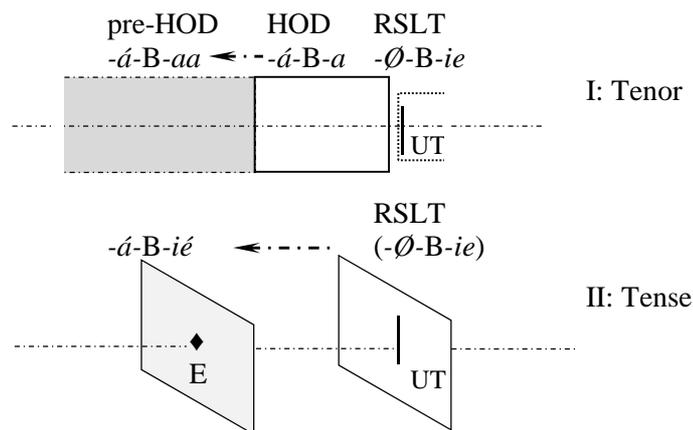
Thus, although Sibhende and Ikalanga share comparable constructions, their systems are organized differently, a situation that led to the creation of a new resultative in Ikalanga but not in Sibhende.

4. TRANSFORMATION OF RESULTATIVE TO PAST

4.1 FROM RESULTATIVE TO REMOTE PAST: THE CASE OF KINYATURU

The reverse development, from resultative to remote D-domain past can be observed in Kinyaturu (F32). As in Sibhende and Ikalanga, the perfect developed into a hodiernal past, accompanied by the creation of a pre-hodiernal past (see Figure 7). Unlike in Sibhende and Ikalanga, which inserted prefix *-ka-*, the Kinyaturu pre-hodiernal past was created by addition of *-aga*, which ultimately lost the [g], resulting in a long final vowel of the hodiernal form. However, this pre-hodiernal past did not shift to marking the D-domain past. Rather, the resultative construction served as the source for the D-domain past, a prefix *-á-* being inserted into the resultative, analogous to that found in the Hodiernal and pre-Hodiernal pasts.

Figure 7. Conversion from resultative to remote past in Kinyaturu (F32).
[Data: Olson 1964]



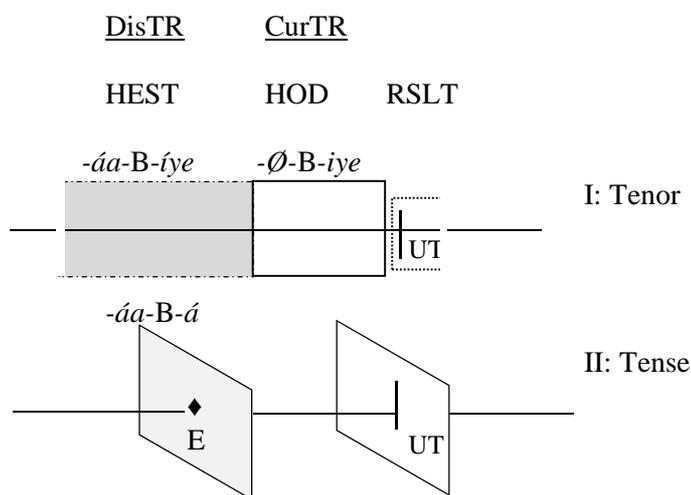
The motivation for this innovation can be found, again, with change-of-state verbs. As noted in Figure 6, C-of-S verbs have two possible points of interpretation. In Kinyaturu, the addition of past prefix *-á-* to the resultative construction permitted reference to the past time at which the change occurred. Subsequent extension of use of *-á-B-ié* to activity verbs would produce the general D-domain past. Note that, in both Ikalanga and Kinyaturu, the change was effected along the D-line perspective.

4.2 RESULTATIVE TO HODIERNAL AND HESTERNAL PASTS: KIMBUGWE (F34) AND ISIZULU (S42)

In Kimbugwe, the resultative construction also served as the source for a new past form, but in contrast with Kinyaturu, it was in the P-domain, not the D-domain. The range of the resultative was extended first to hodiernal denotation. The perfect construction, rather than developing into a hodiernal past, as it did in languages described above, became the D-domain past marker, the resultative having taken on the function of perfect (Wilhelmsen p.c.) (see Figure 8). The addition of prefix *-áa-* to the resultative/hodiernal form created a hesternal past, creating a CurTR vs. DisTR contrast in the P-domain. In effect, then, the forms in Kimbugwe and Kinyaturu are reversed.

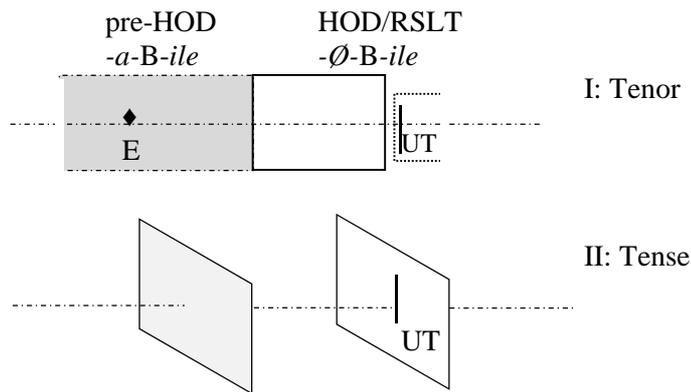
Figure 8. Extension of resultative to hodiernal in Kimbugwe.

[Data: Mous 2004, Wilhelmsen, p.c.]



Xironga (S54) has developed a system much like that of Kimbugwe. The resultative has been extended in a similar manner, first to hodiernal and then, with addition of the prefix *-a-*, to a pre-hodiernal region (see Figure 9). However, unlike in Kimbugwe, the *-a-B-ile* construction is truly pre-hodiernal, in that it expresses a past anytime before today, not just yesterday. Moreover, Xironga has lost the perfect and apparently has no marker for the D-domain past.

Figure 9. Tense marking in Xironga (S54).
[Data: Junod 1896; Bachetti 2006].



We can further compare Kimbugwe and Xironga with Isizulu (S42), which is very similar in its past constructions. As in Kimbugwe and Xironga, the resultative in Isizulu was the source for a new past construction. Unlike in Kimbugwe and Xironga, however, the resultative form was slightly modified, through differential use of the suffix *-il-*, to create a new biduonal³ perfective. Consider the difference in interpretation in the two examples in (4).

4) Differential *-il-e* interpretation in Isizulu

[data from Botne & Kershner 2000, citing Beuchat 1966]

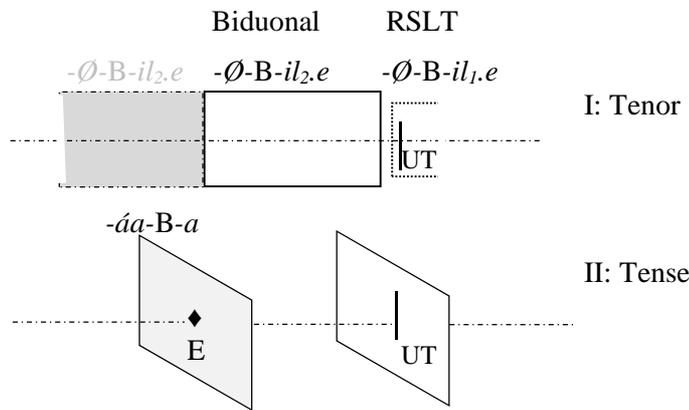
- a. *ba-khathe:l.e* 'they are tired' [*< ba-khathal-il₁.e*]
- b. *ba-khathal-il₂.e* 'they got tired'

The perfective form illustrated in (4b) must be used if the event occurred in the past two days, but may be used for any time in the past (Poulos & Bosch 1997; Beuchat 1966). That is, the construction *-Ø-B-il₂.e* can denote not only a period of two days prior to UT, but may be used to situate an event at any time in the past of the P-domain. Hence, *-Ø-B-il₂.e* saturates the past of the P-domain. The one-time perfect construction *-áa-B-a*, in contrast, functions as a marker of D-domain past (see Figure 10), as in Kimbugwe. Thus, for example, we find the *-aa-* form compatible with the *-il.e* forms, as in (5). Hence, the *-aa-B-a* denotes a remote past in a separate domain, which permits the use of the domain internal perfectives in *-il.e*. In this respect, Isizulu differs from Xironga, which completely lost the perfect *-aa-* form.

³ Biduonal denotes a period including today and yesterday, counterpart to hodiernal, which marks today.

- 5) a. *Ixhegu l-aa-li-lele⁴ uma sifika* ‘The old man was asleep when we arrived’
 5.old_man 5.REM-5.sleep.IL₁ when 1P.arrive
- b. *Ixhegu l-aa-li-lal-ile uma sifika* ‘The old man had slept when we arrived’
 5-REM-5-sleep-IL₂

Figure 10. Tense marking in Isizulu (S42).
 [Data & analysis: Botne & Kershner 2000, Beuchat 1966]

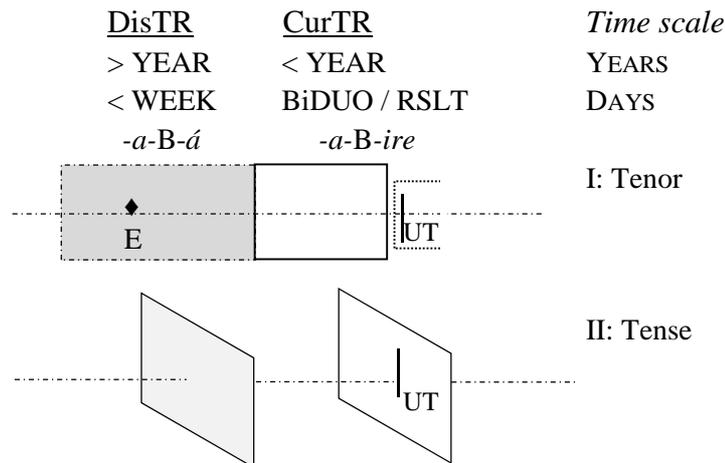


5. INNOVATING TIME SCALES

The tense/aspect systems in the dialects of Kilangi (F33) superficially resemble that of Kimbugwe. However, there is a significant difference in the organization of these systems; they exhibit a distinction in time scale. Consider first the Kondo dialect (see Figure 11). In this dialect, the resultative was extended to denote not only today, but also yesterday; hence, it can be considered a biduonal marker in addition to its marking a resultative. The perfect came to mark the distal time region immediately preceding the biduonal time region, denoting events that occurred less than a week in the past. Ultimately, the *-a-* prefix came to mark the biduonal/ resultative form as well as the distal form. In addition, these two forms came to mark current/ distal time regions at either this “day” scale, or at a “year” scale. That is, the same form could be used to express a current past event that happened within the past two days or within the current year, according to context. There is no D-domain past.

⁴ In official Zulu orthography, vowel length is not represented. For added clarity, it is indicated here. I thank Betty Sibongile Dlamini (p.c.) for confirmation of these examples.

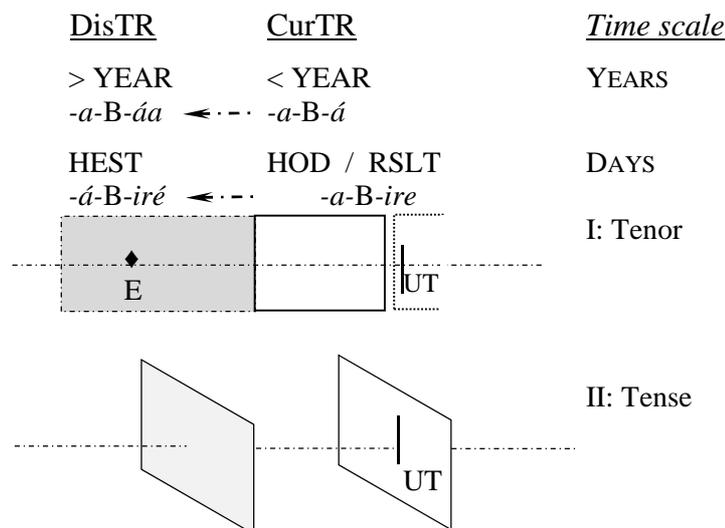
Figure 11. Covert time scales in the Kondoa dialect of Kilangi.



The Bolisa and Mondo dialects also developed time scaling, but overtly marking the distinctions rather than covertly, as in the Kondoa dialect. In these dialects, the resultative acquired a hodiernal reading (see Figure 12). The addition of prefix *-á-* to the resultative *-Ø-B-ire* created a hesternal past, effectively a distal time region, which marks the “day” time scale. The perfect, in contrast to the other languages described here, became interpreted as marking a current time region at the “year” time scale. Addition of suffixal *-ága* (> *-áa*) created a comparable distal time region—greater than a year. At some point, the resultative itself acquired a prefix *-a-*, analogous to all the other past forms.

Figure 12. Overt time scaling in the Mondo dialect of Kilangi.

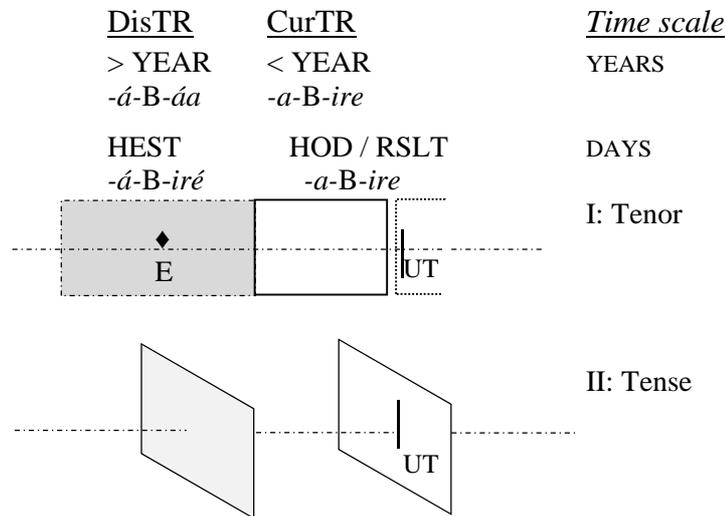
[Data from Stegen 2006, p.c.]



The Bolisa dialect followed much the same path as the Mondo dialect. Where it differs from the Mondo dialect is in the form of the CurTR at the time scale of “year”. Instead of the original perfect form, it has replaced it with the same (or similar) form as at the “day” scale, i.e., *-a-B-ire*. It is not clear from descriptions

of this variety whether there is a tonal distinction between the forms at the two scales or not.

Figure 13. Overt time scaling in the Bolisa dialect of Kilangi (F33).
[Data from Stegen 2006, p.c.]



Kimbugwe may also have (had) scaling. Wilhelmsen (p.c.) notes that one elderly man used the hesternal past in speaking about “last week”, “last month”, and “last year”, all distal time regions in contrast to the current time region expressed with the hodiernal past. Although, after further probing by Wilhelmsen, he changed to the remote D-domain past, his use in this manner suggests that Kimbugwe has (at least) some traces of this feature.

6. SUMMATION OF TENSE SYSTEM INNOVATION AND EVOLUTION

Variation in the organization and marking in tense/aspect systems in several eastern and southern Bantu languages has been shown to fall out naturally from different re-analyses of the initial aspectual differences expressing resultative and perfect. In some languages, the perfect came to express a hodiernal past, in others the resultative did so. The hodiernal past, in many instances, became the source for either a pre-hodiernal past or a (limited) distal time region expressing, for example, a hesternal past. Resultative and remote past were shown to be connected across temporal domains, with shift from one function to the other possible in either direction—from remote past to resultative in Ikalanga, from resultative to remote past in Kinyaturu.

Variations on the two original constructions appeared in all of these languages, but with different functions and different organization within the systems. What appeared initially to be odd reversals in the function of similar forms was shown

to arise naturally as speakers opted to extend semantically the range of one or another construction.

7. CONCLUSION

The aim of this paper was to address the large diversity, yet widespread similarity, in the tense/aspect systems of some representative Bantu languages selected from zones F and S. What appeared to be curious conundrums and apparent reversals in form and function, have been shown to be the natural consequence of different reanalyses of original constructions. Although the exact paths of evolution and change in particular languages may differ in details from what has been presented here as suggestive, the discussion demonstrates that the multidimensional dissociative framework provides a motivated and principled explanation for the diversity and innovation encountered in these languages.

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