Time, Tense, and the Perfect in Zulu*

by Robert Botne and Tiffany L. Kershner

Introduction

A satisfactory analysis of the so-called perfect in Zulu has proven, over the past 40 years, to be elusive. Problems arise not only with the well-known syntactic alternation between long and short forms, but also with their semantic analysis: How does the perfect mean what it does temporally? Is the perfect a tense or an aspect? Is there one perfect or more? What is the relation between the perfect forms in -ile and the remote past, marked with -aa-? In this paper, we develop an analysis of the perfect and past that integrates tense, aspect, and verb type into one coherent framework. In particular, the analysis we develop focuses on the contrast between two variant forms of the perfect and their uses: post-verb stem -ile forms and imbricated -i...e forms. Choice of form is dependent on both phonological and semantic factors, specifically, in the latter case, on the aspectual class of the verb, that is, whether the verb is inchoative or non-inchoative. Although a similar situation exists in both affirmative and negative constructions, the analysis developed here focuses on the affirmative alone.

Tense and time

Discussions of tense and temporal reference traditionally have been grounded in the assumption that tense – the grammatical means for locating events in time – is most appropriately and adequately represented in terms of an abstract time line (cf. Frawley 1992, Binnick 1991, Comrie 1985). This time line is typically construed as a continuum, divided into past and future temporal regions by the speech event. Tense, in its most conventional use, refers to the relationship between the time of the speech event – the here and now of the present – and the location in time of the event denoted by the speech act; hence, tense is typically deictic in nature. Consequently, the analysis of tense in any given language has generally involved the map-
ping of tense markers to appropriate divisions on a time line. In Zulu, this has meant plotting the perfect (i.e., an \(-IL\,E\) form) as a recent past in contrast to the remote past (i.e., the \(-aa-\) form).

In this article, we develop a different approach to tense and its relation to time in Zulu. As in the conventional view of tense, we treat tense as deictically grounded in the here-and-now of the speech event. However, we do not conceive of tense marking as dividing the time line into the common and conceptually equivalent past, present, and future. Rather, we take the dichotomy now/not now (past) to determine two conceptually distinct worlds or domains – a cognitively primary performative domain and a distinct, conceptually distant, non-active domain. Although temporal distance is relevant, the key difference between these two domains is psychologically subjective distance, that is, the denoted event is situated conceptually outside what Michaelis (1997: 151–52) calls “the domain of actionable conversational contributions”, in our terms, outside the performative domain. That is, the speaker encodes in the performative domain those events which are subjectively operative, in the non-active, those that are subjectively disjunct or remote.

In representing this distinction between these conceptually distinct domains, we depict the domains as separate planes, as in (1). Time can be correlated with either domain, as indicated by the time line running through each. The speech event (S), situated in the performative domain, is the primary reference. Use of \(-aa-\) projects events into the conceptually non-active remote domain, the remote past, as indicated by the arrow between the two events. In effect, the arrow represents the discontinuity between the two domains and the positioning of the denoted event at a specific location in the past, as viewed by the speaker externally at S. The \(-IL\,E\) forms, on the other hand, situate the participants in the performative domain, the left temporal edge of which appears to be relatively free in Zulu, ranging from yesterday to many years earlier, depending on the speaker. The right edge of the remote domain, on the other hand, appears to be consistently demarcated as pre-hesternal, i.e., prior to yesterday.

Outline of the problem in Zulu

The form and meaning of the perfect has been the subject of much discussion in the literature on Zulu (Taljaard and Bosch 1988, Ziervogel 1967, Beuchat 1966, Doke 1961). The focus of most of this discussion has been the syntactic alternation between constructions ending in the “long form” \(-IL\,E\) and those ending in the “short form” \(-e\) as in (2a) and (2b), respectively. Our concern here lies not with this particular alternation conditioned by factors related to focus and syntax, but rather with an alternation in the long form itself, between \(-IL\,E\) and \(-i\,...e\), as illustrated by the examples in (3) and (4). Although both these forms have been treated as variants of the perfect, the contrasting examples in (4) – in which we find a recent past interpretation contrasting with an apparent stative present – demonstrate that there is a semantic difference inherent in the two. It is this difference that we address here.

1) Performative and remote domains in Zulu

2) a. ba-fik-\(\text{il}e\)
   3P-arrive-PF (long)
   \text{they have arrived}

   b. ba-fik-\(\text{e}\) izolo
   3P-arrive-PF (short) yesterday
   \text{they arrived yesterday}

3) izimvu ba-zis-\text{theng-\(i\,e\)}
   10.sheep 3P-10-buy-PF
   \text{the sheep, they (have) bought}
   \text{them [(perf.), rec. past]}
There has been a tendency for Zulu scholars to analyze the two forms in (4) as undifferentiated wholes without consideration of their individual parts, that is, they have been treated holistically rather than compositionally (e.g., Ziervogel 1967, Beuchat 1966, Doke 1961). Our approach will be compositional. That is, we propose that -ile and -e each consist of two morphemes whose contribution to the temporal interpretation of the verbal construction can be identified.

Before moving to a detailed discussion and analysis of the perfect constructions, it is useful first to situate the forms with respect to their position within the Zulu verb.

The Zulu verb template

In the complex, agglutinative structure of the Zulu verb, tense and/or aspect markers are attached either as prefixes or suffixes to the stem. As we have already noted, Zulu makes a distinction between the perfect, or recent past, and a remote past, the latter being marked by prefix -aa- and final vowel -a. The perfect constructions, on the other hand, take a null (\(\emptyset\)) prefix and either final -ile or -i...e. (Recall that we ignore the syntactic variation with final -e in this paper.) The positions of these formatives in the verbal unit are shown in the template in (5).

5) 1 2 3 4 5 SP = subject prefix T = tense Asp = aspect

The template does not include all potential affixes to the verb complex, but rather, only those relevant to the present discussion. Following the subject prefix (SP) in position 1 is the tense category (position 2) in which remote past, marked with -aa-, is contrasted with non-remote past, represented by a null marker -\(\emptyset\). The root (position 3) encodes lexically the inherent event aspect of the verb, crucial to understanding the tense/aspect behavior of the perfect forms. Although we adopt in principle Vendler’s (1967) general aspectual categories of verb types – activities, accomplishments, and states – we subsume his category “achievement” within a broader category of inchoatives, events which typically involve a transition into a state. The nature of inchoatives will be discussed in the next section.

The fourth and fifth positions contain those forms which are the focus of this paper. Both are aspectual. The forms in position four, -il(1)-1 and -il-2, denote different aspectual views of event structure. This distinction will be developed in the course of the article. In position five, -e, under our analysis, indicates completeness, that is, whether a particular phase of the event is complete; -a appears to be semantically neutral.

Inchoative verbs

As Beuchat (1966: 70), among others, points out, verbs in Zulu can be divided into two sets, inchoatives and non-inchoatives (Vendler’s activities, accomplishments, and states). Semantically, inchoative verbs express a change of condition or location of the experiencer or patient, many expressing the change or transition from one state to another. Zulu possesses a number of such inchoative verbs, a small sampling of which, drawn from Beuchat (1966), is provided in (6). However, the transition need not be to a “state”, as in the case of the inchoative verbs -bamba ‘grab, seize’ and -phatha ‘carry’.

6) -apuk- get broken -gug- become old
   -bamb- grab, catch, seize -gqok- put on, don
   -dabuk- get sad -khatal- become tired
   -gewal- become full -phath- carry

It is the inherent internal structure of inchoative verbs that is of interest here. In analyzing this inherent structure, we adopt the analytical framework of Freed (1980) and Botne (1983), in which events consist of potentially (at least) three phases: an onset (O), a nucleus (N), and a coda (C), the nuclear phase constituting the characteristic and prominent feature of the event. The onset, if there is one, constitutes the initial phase of the event, different in nature from the nuclear phase. The coda, conversely, constitutes a final phase of an event.
again differing in nature from the nuclear phase (Freed 1980: 33–35). What is significant for the analysis here is that the nuclear phase of inchoatives differs from that of non-inchoatives, the activities and accomplishments, in that it is punctual rather than durative (Botne 1983). This difference in event structure, crucial to understanding the use of the perfect in Zulu, can be represented as in (7).

7) a. Inchoative temporal structure

(N)   C

b. Non-inchoative temporal structure

(N)   (C)

Analysis of the Zulu Perfects

The Zulu “perfect” has been analyzed in a variety of ways: as a perfect denoting a completed aspect (Taljaard and Bosch 1988), as a perfect tense (Beuchat 1966), as an immediate past tense (Fox n.d.), as a definite immediate past tense (Malcolm 1960; Dike 1961) and as a stative and/or recent past tense (Rycroft and Ngcobo 1979, Canonici 1990). We will demonstrate in this section that there are really two perfects and that they are both aspectual in nature. Furthermore, whereas previous analyses have treated the perfect non-compositionally as a single morphological unit, morpho-syntactic and semantic evidence support a compositional analysis, one in which -il(e)- and -e- can be analyzed as separate morphemes. First, the syntactically determined alternation between -ile- and -e-, illustrated by the examples in (8), does not produce different temporal interpretations, both can have perfect or recent past readings in English.

8) a. izimvu ba-zizhengile the sheep, they (have) bought them
   b. ba-theng-e izimvu they (have) bought (some) sheep

Second, all the perfect forms ending with -e- are consummate in nature, as illustrated with the verb -lala ‘sleep’ in (9). As an inchoative verb, -lala has both a coming-to-be and a stative phase; hence, what has been completed is the coming-to-be phase, not the entire event.

9) a. u-lal-ile\textsuperscript{1} he slept [Beuchat 1966: 27]
   3S-sleep-PF
   b. u-lal-e endlini he slept in a house [Beuchat 1966: 27]
in-house
   c. u-le-le\textsuperscript{e} he is asleep [Beuchat 1966: 27]

Third, the passive suffix -w- occurs between the two parts of the perfect, as in (10), again suggesting an analysis as separate morpho-syntactic elements. Note that the [l] of -il- is deleted before the passive marker.

10) zonke izimbuzi zi-thengis-i-w-e all the goats have been sold

Although the two morphemes are clearly distinct, we nevertheless treat the two parts as a composite whole aspectually. That is, we can speak of both an -ile perfect and an -i...e perfect.

The distinction between stative and immediate past interpretations has been noted by most linguists, most clearly in Rycroft and Ngcobo (1979) and Canonici (1990), who distinguish stative and immediate past stem forms. We do not dispute the distinction, but feel the differences need to be examined more closely. In contrast to non-inchoative verbs like -thenga ‘buy’ which have a single recent past reading, inchoatives such as -lamba ‘become hungry’ and -khathala ‘become tired’, in (11) and (12) respectively, have two distinct interpretations, a recent past (or perfect, depending on context) and a stative present.

11) a. izolo ba-lamba-ile yesterday 3P-become hungry-PF
    yesterday, they got hungry [rec. past] [Beuchat 1966: 78]
   b. ba-lamba-ile (kakhulu) they are (very) hungry [pres.]

12) a. ba-khathal-aile uma besiebenze kangoka 3P-become tired-PF when 3P-work hard
    they got tired when they worked so hard [rec. past]
   b. ba-kathali-e (kakhulu) they are (very) tired [pres.]
   [Beuchat 1966: 77]
What is of significance here is that -kathala in (12) has two different forms corresponding to the two different readings: the -i.e form and the imbricated -i-.e form. (By imbricated, we mean that the form -i.e has moved phonologically into the root, coalescing with the root vowel and losing its [i] consonant.) The -i.e form cannot have the static present reading (thus, -kathala-il.e cannot be interpreted as ‘is tired’), nor can the -i-.e form be interpreted as recent past (thus, -kathala:I-e cannot be ‘got tired’). Based on this difference in temporal interpretation, the verbs can be divided into two aspectually distinct sets, as in (13), labeled for convenience “static” and “dynamic”.

13) Two aspectual sets

<table>
<thead>
<tr>
<th>Stative</th>
<th>Dynamic</th>
</tr>
</thead>
<tbody>
<tr>
<td>-lamb-il.e</td>
<td>-theng-il.e</td>
</tr>
<tr>
<td>are hungry</td>
<td>(have) bought</td>
</tr>
<tr>
<td>-khath-e:il.e</td>
<td>-khathal-il.e</td>
</tr>
<tr>
<td>are tired</td>
<td>got hungry</td>
</tr>
<tr>
<td>[-katha-I-e]</td>
<td>[-katha-I-e]</td>
</tr>
<tr>
<td>-il-1</td>
<td>-il-2</td>
</tr>
</tbody>
</table>

All three of the verbs we have discussed – -thenga ‘buy’, -lamba ‘become hungry’, -kathala ‘become tired’ – have a dynamic simple past reading, as shown in the second column. They are marked by the suffix we designate as -il-. Only the two inchoative verbs, marked by what we designate as -i(I)e, have the stative reading. Note that -lamba and -kathala represent phonologically two kinds of inchoative roots: those that end with -aC- (with the exception of -CVC-roots ending in [n]), as in (14a), have the imbricating form; those with other endings (14b), the non-imbricating form. Roots ending in -ul-, such as -hlabal ‘become undressed’, resemble imbricating forms in that they exhibit only final -e when they have a stative reading: they differ in not showing imbrication of the -i-, as in (15). Hence, such inchoatives can be grouped with the imbricating forms in -aC-.

14) a. imbricating -aC- roots

| -gwal- | -dabuk- |
| become full | get sad |
| -lal- | -non- |
| go to sleep | get fat |
| -phath- | -bamb- |
| get hold of, carry | get hold of, grab |
| -hlunam- | -dan- |
| become sad | become sad |

b. non-imbricating roots

The imbricated -i- derives historically from the phonological incorporation of -il- into the root, as illustrated in (16) (Bastin 1983, Beuchat 1966). Note that -a- + -i- coalesces into long vowel [e].

16) -aC + il- > -a-il:C- > -e:C-

Given the difference in behavior and meaning, we can now speak of two different morphological templates, as shown in (17); imbricating and non-imbricating. In the first (17a), the -i(I)e- is incorporated into the root, while -il-2 is situated in post-root position. In the second (17b), the -IL- forms occupy the same post-root position.

17) Positions of -IL- with respect to a

| a. imbricating template: |
| -CVCVC- root |
| -CVCV-1-C-2-e |

b. non-imbricating template: |
| -CVCVC-1/-2-e |

We conclude from the morphological distinction apparent in the imbricating template that there are, in Zulu, two aspectual types of completeness, though clearly, in the non-imbricating forms, the two -IL-’s are not distinct in form. For both inchoative and non-inchoative verbs, -il-2 indicates that the whole event is complete(d), rendering a simple past reading. This is what we label the PERFECTIVE aspect, which provides an external view of the event. This external view is represented in (18) by the bold lines encompassing the end of the event, both with inchoatives and non-inchoatives.

18) -il-2: perfective (Event completed)

| a. Inchoative verbs |
| ba-lamb-il.e / ba-kathal-il.e |
| they got tired/hungry |
| b. Non-inchoative verbs |
| ba-theng-il.e |
| they bought |

The form -i(I)e, which occurs with the two inchoative verbs -lamba and -kathala, denotes a different aspectual view. In this case,
only part of the event structure has been completed and, crucially, this is the nucleus, as represented by the bold line in the coda phase of the schema in (19). That is, the aspectual perspective is internal, situated in the stative phase of the event. We designate this the COMPLETIVE aspect.

19) 

-\textit{il}\textsubscript{1}:- complete (Nucleus completed) 

Inchoative verbs

\begin{tabular}{|c|c|}
\hline
N & C \\
\hline
\end{tabular}

\textit{ba-lamb-i\textsubscript{1}e / ba-khath\textsubscript{1}e} \\
they are tired/hungry

It is conceivable that non-inchoative verbs also have a completive reading. However, since the completive reading indicates completion of the nucleus from a perspective within the coda, for a non-inchoative verb such as \textit{thenga} ‘buy’, this will simply be a point at the end of the event structure, as in (20). Although this represents a subtle difference in perspective from that of the perfective aspect illustrated in (18 b), we have not been able to discern any semantic difference in use by Zulu speakers.

20) Potential completive aspect of a non-inchoative event

\begin{tabular}{|c|c|}
\hline
N & C \\
\hline
\end{tabular}

\textit{ba-theng-i\textsubscript{1}e} \\
they bought

To summarize, non-inchoatives like \textit{thenga} ‘buy’ have a temporal event structure that includes a durative nucleus (N) and potentially a demarcative onset and/or coda phase. Inchoatives like \textit{lamba} and \textit{khat\textsubscript{1}ala}, on the other hand, which encode the transition into a state, have a different event structure: the nucleus is a point dividing the onset activity and coda state. Just as there are two species of verb, there are two species of aspect in Zulu, perfective, providing an external perspective on event structure, and completive, providing an internal perspective on phase structure. Having established these two views, we now turn to the relationship between the speaker’s aspectual view and domain structure.

The perfective aspect, as proposed above, denotes a complete(d) event, one that has been completed prior to the deictic anchor, the speech event (S). Hence, there is a recent past reading. This relationship between aspectual view and speech event is represented visually by the schema in (21), in which time is the background against which the speaker perceives herself to have moved through the event from onset to coda, so indicated by the arrow through the event structure.

21) Perfective -\textit{il}\textsubscript{2}:- event in performative domain: recent past interpretation

\begin{tikzpicture}
\node (S) at (0,0) {S};
\node (Pf) at (1,0) {Pf};
\draw (S) -- (Pf);
\draw[->] (Pf) -- (S) node[midway, above] {\textit{il}\textsubscript{2}e};
\node (Time) at (0,1) {Time};
\node (E) at (1,1) {E time};
\node (N) at (-1,0) {N};
\node (R) at (0,0) {R\textsubscript{2} = S};
\node (E) at (1,1) {E time};
\draw[->] (N) -- (R) node[midway, above] {\textit{il}\textsubscript{2}...e};
\node (Domain) at (-1.5,0) {performative domain: external view};
\node (Domain) at (1.5,0) {performative domain: internal view};
\end{tikzpicture}

The temporal interpretation is strikingly different when we consider the completive aspect, marked by -\textit{il}\textsubscript{1}-, with the same inchoative event structure as that illustrated in (21). We propose that the event $E$, when encoded for completive aspect, demarcates the limits of the performative domain, as shown in (22), with the speaker situated at the completed reference point $R_2$, located in the coda phase of the event, and coincident with the speech event S. The speaker here serves as the fixed reference point, with Event time moving past the speaker, hence, the stative reading ‘is tired’. In effect, the completive aspect creates a second temporal perspective in the performative domain that we consider to be an internal view.

22) Completive -\textit{il}\textsubscript{1}:- event, with E defining the limits of the performative domain

\begin{tikzpicture}
\node (S) at (0,0) {S};
\node (Pf) at (1,0) {Pf};
\draw (S) -- (Pf);
\draw[->] (Pf) -- (S) node[midway, above] {\textit{il}\textsubscript{1}e};
\node (Time) at (0,1) {Time};
\node (E) at (1,1) {E time};
\node (N) at (-1,0) {N};
\node (R) at (0,0) {R\textsubscript{2} = S};
\node (E) at (1,1) {E time};
\draw[->] (N) -- (R) node[midway, above] {\textit{il}\textsubscript{1}...e};
\node (Domain) at (-1.5,0) {performative domain: external view};
\node (Domain) at (1.5,0) {performative domain: internal view};
\end{tikzpicture}

Further support for this view comes from concatenation of verbs in the completive aspect and the present, as in (23), in which the inchoative verb \textit{xin\textsubscript{2}eka} ‘become busy’ and the non-inchoative verb \textit{sebenza} ‘work’ express a unified concept ‘be busy working’. The speech
event is the deictic center which anchors and is coincident with the
completive perspective of inchoative -xineka. As noted in our anal-
sis, the completive inchoative demarcates the performative domain. It
is within this domain that the event WORK, denoted by -sebenza,
oc-urs. Hence, the subject “I” is depicted as simultaneously in a state of
being ‘busy’ and in the midst of ‘working’. The schema in (24) depicts
this situation.

23) ngi-xinek-ile ngi-ya-sebenza
      IS-become busy-CMPL  IS-PRES-work  [Rycroft & Ngebo 1979]

24) Completive aspect concatenated with present tense

Completive and perfective in the remote domain

These two different aspeclual views of completion also apply to
the remote domain, giving a “past perfective” reading. To establish
this cognitive relation, the speaker must index a reference point in
the remote domain, which s/he does by using a complex periphrastic
construction, such as that in (25). In such periphrastic constructions,
the remote construct (SP)-aa- indexes a reference time t1, which func-
tions as a second reference point, noted as R2, situated in the remote
domain. The perfective stem -shon-i-le is then interpreted with re-
spect to this remote reference point, rather than directly to the deictic
anchor at the speech event S, as illustrated in (26).

25) illanga l-aa li-shon-i-le uma sijika
      5sun 5-RmPST 5-set-PFV  when 1P-arrive  the sun had set when we
      [Beuchat 1966: 25]

26) Past perfective in the remote domain

As noted above and exemplified in (23)–(24) for the performative
domain, additional support for our analysis comes from the concate-
nation of verbs in the completive aspect and the present. This holds
for the remote past domain as well, as exemplified, for example, with
inchoative -hla-la ‘become seated; sit’ and non-inchoative -xoxa ‘chat’
(27), which together express the concept ‘be seated chatting’, de-
picted schematically in (28).

27) s-aa-si-hlezi3 si-xoxa
      1P-RmPst-1P-be seated.PFV 1P-chat  we were sitting, chatting
      [Beuchat 1966: 31]

28) Completive aspect concatenated with “present” in the remote
    past domain
Note in particular that time is correlated with the remote domain, just as it is with the performative domain. That is, there is a past and future (= future-in-the-past) in this domain, hence, the past-in-the-past or past perfect reading. Just as in the performative domain, there are “present” (= coincident) and “future” (= posterior) forms in the remote, as indicated by the examples in (29) and (30), respectively.

29) ingwe y-aa yi-cathamela imvu the leopard was stalking

30) a. ng-aa ng-azi ukuthi u-zo-sebenza I knew that he
1S-RmPST 1S-know that 3S-FUT-work
would work

b. ng-aa ng-azi ukuthi w-aa ye-zo-sebenza
1S-RmPST 1S-know that 3S-RmPST 3S-FUT-work
I knew that he was going to work

The difference in meaning in the two sentences in (30) reflects a difference in position of what we designate here as the *origo*, that temporal reference point from which the relation of the event (as denoted by the main verb) to the speech event is viewed and evaluated. In (30a), the origo is located at S, the time of the speech event. Auxiliary (SP)-aa establishes a reference time, labeled R₂, in the remote domain. Both events, -azi ‘know’ and -sebenza ‘work’, are anchored to, and interpreted with respect to, this point. The verb -azi is a resultative inchoative (i.e., it has a punctual Nucleus, durative state as Coda, but no onset phase); as such, it demarcates the remote domain. The event WORK is future with respect to the reference point, but falls within the domain of -azi ‘know’. The speaker’s point of view is from the deictic center at S in the performative domain, i.e., from the origo, and, hence, reflects an external perspective on the events in the remote domain. Consequently, both knowing and working, since they are temporally evaluated at S, must have occurred. This situation is indicated in (31).

The situation in (30b) differs from that in (30a) in that periphrastic (SP)-aa + V constructions appear in both matrix and subordinate clauses. As in the example in (30a), matrix (SP)-aa indexes a time t₁ as a reference point (R₂) in the remote domain, as shown in (30). The aspectual view from within the static coda of -azi is again coincident with R₂, and again inchoative -azi demarcates the limits of the remote domain. What differs semantically in (30b) from (30a) is that subordinate (w)-aa ye-zo-sebenza establishes another reference point; the event WORK is to be interpreted as future with respect to this reference locus. The substantive value of this reference point is determined from the context; in example (30b), the -aa- construction indexes the time t₂ of the static inchoative -azi given in the matrix clause. That is, the event WORK is to be interpreted as future with respect to -azi.

In essence, use of the periphrastic (SP)-aa- construction in the subordinate clause of (30b) functions to shift the origo from S to R₂, thereby producing a view of the events from within the remote domain itself. The event WORK, then, is not temporally evaluated at S, but rather at R₂, and so a temporal interpretation of WORK at S is not possible; that is, whether or not WORK actually occurred is not discernible at S.
32) Future in the remote past from a point in the remote past

The remote past perfect(s) derive from a periphrastic construction involving auxiliary -ba 'be' (Posthumus 1982 and p.c.), SP-a-ba SP-ROOT-ile, with the -be (a "defective" form of -ba) indexing the time t_e of some contextually determined event as a reference point (cf. Botne 1986). Subsequently, -be was lost. The simple past perfect be-SP-ROOT-ile is comparable in that it derives from SP-be SP-ROOT-ile (see Ziervogel 1967, among others). Like the remote past perfect, the simple past perfect functions by indexing some time t_e as a reference point (R2) other than the speech event S, but does so in the performative, rather than in the remote, domain. The denoted event is anchored to and, hence, interpreted with respect to, this second reference point (33-34). The inchoative verb -lala 'sleep' is represented schematically in (35) in its past completive and perfective aspects in the performative domain.

33) a. be-si-le-ile we were asleep (at that time)
   b. be-si-lal-ile we had slept (at that time)

34) incwadi be-si-yi-theng-ile the book, we had bought it (at that time)

35) Simple past completive and perfective aspects of inchoative -lala 'sleep'

In sum, in our view there are two aspects, completive and perfective, in Zulu, evident from two different forms with imbricated inchoative verbs. Both aspects incorporate a form historically derived from -il-, though in imbricated forms it has been reduced to -i-, which coalesces with the preceding [a] to form [e]. In imbricated forms, then, it is the position of the morpheme that determines the interpretation. Thus, while -e indicates completion, -i(l)- indicates the perspective on completion, whether internal or external.

This difference in aspectual perspective in the analysis we have developed here is of further interest because it implies an iconic relationship between the morphological form and its semantic interpretation. For imbricating stems, the completive morpheme -i- is situated inside the verb root, just as the speaker projects herself conceptually inside the event structure. Similarly, -il-2 is situated outside the verb root, just as the speaker is conceptually outside the event structure.

Conclusion

In this article, we have proposed five key elements relevant to the analysis of the Zulu perfect. First, we have demonstrated that what has been called the perfect actually comprises two different aspeccual types, which we have labeled the perfected and the completive. Second, each of these is composed of a morpheme -il- (-i(l)l or -i(l)2) plus final -e, encoding perspective (internal or external) and comple-
tion, respectively. Third, we have shown that the distinction between inchoative and non-inchoative verbs plays a crucial role in understanding the use and interpretations of the two aspects. Fourth, we have proposed that Zulu distinguishes two conceptually different temporal domains, a non-active remote domain displaced from the speech event S contrasting with a conceptually active performative domain incorporating S. And, finally, whereas S constitutes the primary reference point – the deictic center – of a tensed construction, the complex be- and (SP)-aa- constructions provide the means of establishing secondary and tertiary reference points within each domain.

We suggest that the analysis outlined in this paper presents a more principled picture of what is going on in the Zulu tense system. It provides an integrated and coherent framework that ties together lexical event structure, grammatical aspect, and both simple and complex tense forms, one that may enhance our understanding not only of the Zulu perfect, but of similar tense/aspect problems in other languages as well, both Bantu and non-Bantu.

Notes

1. This article is a revised and expanded version of a paper presented at the 30th Annual Conference on African Linguistics held at the University of Illinois, Urbana-Champaign, July 3-5, 1999. We thank Audrey Mbeje, Nhlanhla Thwala, Lungi Sosibo, and Sandra Sanneh, who provided both data and insight into the Zulu perfect. We also thank Lionel Posthumus for providing critical comments on the analysis and presentation. The authors remain solely responsible for any errors in the data or their interpretation.

2. The following abbreviations are used in the paper:
   CMPL: compositive
   PASS: passive
   REC: recent
   FUT: future
   PF: perfect
   RmPST: remote past
   FV: final vowel
   PFV: perceptive
   S: singular
   P: plural
   PRES: present
   SP: subject

3. The perfective form of -hlala 'be seated; sit' is irregular.
4. This term appears to have been coined by Klein (1980), who uses it in terms of spatial reference.
5. Hence, the temporal structure of -azi ‘know’, a resultative inchoative, is the following: N C

References