A SEMANTIC DESCRIPTION OF TEMPORAL REFERENCE IN THE KIKUYU VERB*

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The paper provides a detailed descriptive account of the principal morphemes in the temporal reference system of the Kikuyu verb. It is proposed that the basic organization of the verbal paradigm reflects an underlying distinction between "manifest" and "imminent" episodes. Those forms which have a tense prefix and a distinct aspect infix describe episodes which are "manifest", in the sense of being fully realized at the moment of speaking. The complementary class of episodes—those with potential for further development—are described by the "imminent action" forms, which are characterized by a single prefix positioned before the verb stem. The manifest/imminent distinction accounts for the presence of a "short-perfect/long-perfect" and a "short-imperfect/long-imperfect" contrast, found only in the present tense but not within any other tense. The latter part of the paper describes the special aspectual properties of inchoative state verbs in Kikuyu. It is argued that these verb stems are systematically ambiguous between a state and an event meaning, and that this ambiguity is not simply a consequence of what aspect inflection the stem co-occurs with. In addition, evidence is presented to suggest that the Kikuyu perfect marker is ambiguous between the meanings "perfect-aspect" and "persistent-state".

*This paper is an extensively revised version of the material originally presented in my dissertation [Johnson 1977]. I am grateful to David Dowty and Arnold Zwicky, the co-directors of my dissertation, for the many hours of advice and support which they gave to this research. The final version of this paper benefited greatly from the detailed comments on an earlier draft by Talmy Givón and Russell Schuh. Remaining errors are my own responsibility. I would also like to express my gratitude to the Canada Council for a travel grant to do field work in Kenya, to the Government of Kenya for permission to do research there, and to the members of the Department of Linguistics and African Languages at the University of Nairobi, especially Kevin Ford and Mohammed Abdullaziz, for their warm hospitality during my visit to Nairobi. Most of all, I am grateful to the Kikuyu people for their friendly acceptance of me and my work. This description of Kikuyu came into being primarily through the patient assistance of Macaria, Gĩtaũ, Nyĩka, and Tony, the consultants who worked with me on the project.
1. Introduction

The purpose of this paper is to provide a detailed semantic description of the principal morphemes in the temporal reference system of the Kikuyu verb. The account presented here is part of a long-range investigation into the nature of tense and aspect marking whose ultimate goal is to provide a formal syntax and semantics for these categories within the theoretical tradition now known as "Montague Grammar". In Johnson [to appear], I have dealt with the Kikuyu system in some detail, having proposed a set of abstract temporal meanings for each of the principal tense/aspect categories of this language. In the present paper, I deal with the same categories but from a more descriptive, less theoretical perspective. My aim here is to provide as detailed and comprehensive a presentation as possible of the semantic facts that I have gathered concerning temporal reference in the Kikuyu verb. Although my own theoretical orientation inevitably shapes the description to some extent, it is hoped that the data presented here will be of use to linguists of all theoretical persuasions who have an interest in the Bantu verb system.

There has been at least one previous study on the semantics of a Bantu verb system, Givón [1972:Chapter 4], which deals with ChiBemba. The scope of Givón's study is broader than my own, since it includes modality marking as well as tense/aspect, and it discusses markedness relations among semantic features based upon many extra-sentential relationships not yet considered in my work on Kikuyu. In consequence, Givón provides relatively less descriptive detail on the core features of the ChiBemba system, and this fact, coupled with some fundamental differences between the ChiBemba and the Kikuyu systems, makes it difficult to compare the two analyses at the outset. Since my goal here is principally descriptive, I will not attempt such a comparison in this paper. Nevertheless, I am sure that Bantuists would agree that a broadly based comparison of different Bantu verb systems and different theoretical approaches is a primary research goal for Bantu linguistics, and I hope that many individuals will ultimately contribute to the realization of that goal.

Most of the data presented here derives from a field trip in 1976 to
Nairobi, Kenya,\textsuperscript{1} where I worked with two Kikuyu students from the University of Nairobi. I also worked for a time on this project with a Kikuyu student at Ohio State University and another at the University of Western Ontario. Although these four consultants represented a variety of dialectal subgroups, there were no dialect differences among them that affected the work I was doing.

The data from my own field notes has been supplemented by the very excellent grammar of Barlow [1960]. At numerous places in the text I have indicated where information and/or examples have been taken from Barlow's grammar, and my general indebtedness to his outstanding pioneering work is evident throughout.

\textsuperscript{1}All Kikuyu forms cited in this paper are written in the standard orthography. The one peculiarity of this system is the use of the tilda (\textemdash), which distinguishes the mid vowels \~\textsuperscript{1} (= \textsuperscript{2}e\textsuperscript{3}) and \~\textsuperscript{5} (= \textsuperscript{6}o\textsuperscript{7}) from the low vowels e (= \textsuperscript{8}e\textsuperscript{9}) and o (= \textsuperscript{10}o\textsuperscript{11}), respectively. Otherwise, the symbols have their standard values. The Kikuyu orthography does not represent phonemic tone or vowel length; consequently, these are not marked in the forms cited. The spelling used is that used by my Kikuyu consultants, except for the occasional form in which an underlying long vowel is spelled with a double vowel (even though the consultant spelled it with a single vowel). This normalization of the spelling facilitates the morpheme-by-morpheme breakdown in the interlinear glosses; vowels are recovered in this way only when convenient, and not on a consistent basis. A dash (\textemdash) indicates an ordinary morpheme boundary, and a slash (\textbackslash) indicates the boundary of an infixed element. The following abbreviations will be used in the interlinear glosses:

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<tbody>
<tr>
<td>Imp</td>
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</tr>
<tr>
<td>Comp</td>
<td>Completive</td>
</tr>
<tr>
<td>Perf</td>
<td>Perfect</td>
</tr>
<tr>
<td>SImp</td>
<td>Short-imperfect</td>
</tr>
<tr>
<td>SPerf</td>
<td>Short-perfect</td>
</tr>
<tr>
<td>LPerf</td>
<td>Long-perfect</td>
</tr>
<tr>
<td>RP</td>
<td>Remote past</td>
</tr>
<tr>
<td>NP</td>
<td>Near Past</td>
</tr>
<tr>
<td>CP</td>
<td>Current past</td>
</tr>
<tr>
<td>CF</td>
<td>Current future</td>
</tr>
<tr>
<td>NF</td>
<td>Indefinite (near) future</td>
</tr>
<tr>
<td>RF</td>
<td>Remote future</td>
</tr>
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</table>

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</table>
1.1. Morphological aspect classes of Kikuyu. It is a well-known fact about the Bantu languages that their verbal morphology is exceedingly complex. The categories of verbal inflection include tense, aspect, modality, and negation; in addition, there is a large number of possible derivational suffixes (or "verbal extensions", as these are usually known among Bantuists) and a very large set of concord markers for indicating agreement with subject and object noun phrases. The resulting possible complexity of a verb form may be illustrated with the following example:

\[
(1) \text{nī a-a-tū-ku-TrT/ire}^2 \quad \text{he-RP-us-die-reduplicated benefactive/Comp}
\]

'he died for us'

In this paper, I will be concerned only with verb forms which are inflected for tense and aspect and which function as independent main verbs in a sentence. (Thus, I will not be treating the so-called "dependent tenses" or the negated forms.) To avoid irrelevant morphological complexities, I will also restrict the examples to sentences which evidence subject concord (which is obligatory) but not object concord (which is not required in every sentence and which, unlike subject concord, can be semantically significant). The verb forms thus included are illustrated in Tables 1 and 2 below, for the verb hanyūka 'run'.

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\[^2\text{Something must be said about the particle nī, which occurs in most of the Kikuyu sentences cited in this paper. The presence of nī is sometimes necessary in order to render a sentence a well-formed assertion, although in other cases its presence is optional. The function of nī appears to be to indicate whether the verb is part of what is asserted in a sentence or part of what is presupposed, i.e. nī indicates that the verb is part of the new assertion made by the sentence. The main evidence for this interpretation of nī is the fact that sentence (a) below is an assertion if nī is included but can only be used as a question if nī is omitted:}\]

\[
a) \text{mwana nī a-ra-hanyūka} \quad \text{the child is running (right now)}
\]

child he-SImp-run

However, if (a) is expanded so that, for example, an adverb follows the verb, or if the verb is changed to a transitive one so that an object noun phrase follows, then the sentence can be used to make an assertion without nī; in this case, the focus of the assertion is on whatever follows the verb rather than the verb itself. On the basis of such facts, Myers [1971] has suggested that nī is used when its whole clause is asserted and omitted when some part is presupposed.
Table 1: **Manifest Action Forms**

<table>
<thead>
<tr>
<th>Tense</th>
<th>Completive aspect</th>
<th>Imperfect aspect</th>
<th>Perfect aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;zero&quot; tense</td>
<td>a-hanyük/ire</td>
<td>a-hanyük/aga</td>
<td>a-hanyük/îte</td>
</tr>
<tr>
<td></td>
<td>'he ran</td>
<td>'he is habitually running'</td>
<td>'he has run (some time ago)'</td>
</tr>
<tr>
<td></td>
<td>(earlier today)</td>
<td>(earlier today)'</td>
<td>(earlier today)'</td>
</tr>
<tr>
<td>Current past</td>
<td>---</td>
<td>e-kü-hanyük/aga</td>
<td>e-kü-hanyük/îte</td>
</tr>
<tr>
<td>kū-**</td>
<td>(no form exists;</td>
<td>'he was running</td>
<td>'he had run</td>
</tr>
<tr>
<td></td>
<td>see text for</td>
<td>(earlier today)'</td>
<td>(earlier today)'</td>
</tr>
<tr>
<td></td>
<td>comment)</td>
<td>(earlier today)'</td>
<td>(earlier today)'</td>
</tr>
<tr>
<td>Near past</td>
<td>a-ra-hanyük/ire</td>
<td>a-ra-hanyük/aga</td>
<td>a-ra-hanyük/îte</td>
</tr>
<tr>
<td>ra-</td>
<td>'he ran</td>
<td>'he was running</td>
<td>'he had run</td>
</tr>
<tr>
<td></td>
<td>(yesterday)'</td>
<td>(yesterday)'</td>
<td>(yesterday)'</td>
</tr>
<tr>
<td>Remote Past</td>
<td>a-a-hanyük/ire</td>
<td>a-a-hanyük/aga</td>
<td>a-a-hanyük/îte</td>
</tr>
<tr>
<td>a-</td>
<td>'he ran (before</td>
<td>'he was running</td>
<td>'he had run</td>
</tr>
<tr>
<td></td>
<td>yesterday)'</td>
<td>(before yesterday)'</td>
<td>(before yesterday)'</td>
</tr>
</tbody>
</table>

Glosses indicate typical time interpretations for the tenses.

*changes stem final a to e    **changes a preceding a to e
Table 2: Imminent Action Forms

<table>
<thead>
<tr>
<th>Category</th>
<th>Form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-perfect</td>
<td>a-a-hanyūka</td>
<td>'he has just run'</td>
</tr>
<tr>
<td>Short-imperfect</td>
<td>a-ra-hanyūka</td>
<td>'he is running right now (but he hasn't been running for long)'</td>
</tr>
<tr>
<td>Current future</td>
<td>e-kū-hanyūka</td>
<td>'he will run (some time later today, within a few hours)'</td>
</tr>
<tr>
<td>Indefinite (Near) future</td>
<td>a-rT-hanyūka</td>
<td>'he will run (soon, but the speaker has no definite time in mind)'</td>
</tr>
<tr>
<td>Remote future</td>
<td>a-ka-hanyūka</td>
<td>'he will run (tomorrow or later)'</td>
</tr>
</tbody>
</table>

Glosses indicate typical time interpretations for each category.
* changes a preceding a to e

The forms illustrated in Tables 1 and 2 have been sub-grouped according to the number and position of elements in the verbal string. Those in Table 1, which for reasons given below will be designated the "manifest action" forms, are characterized morphologically by the presence of an aspect marker (either /är/, /ag, or /iT/) within the verb stem and a tense prefix (possibly "zero") immediately preceding the verb stem.³ Thus, the schematic

³Where an object concord marker also occurs, it is positioned between
The position of the aspect marker in a verbal string has been indicated with a slash (/) rather than an ordinary morpheme boundary because these markers are typically infixed into the verb stem rather than suffixed to it. (If the verb stem happens to end in the vowel a, as the great majority do, then either /ir or /It will trigger a change in this vowel to e. The alternation applies whether or not e immediately follows the aspect marker.)

The morphological status of these markers as infixed is actually problematic. In some cases, they are undeniably infixed into the verb root: for example, the verb bucia 'blink' has the aspectualized forms bucirie, bucagia, and bucitie, in which the aspect markers are interposed between the c and the i of the stem, a point at which there can be no morpheme boundary. In other cases, however, the morphological status of the aspect markers is not so clear-cut, and it appears that they may be analyzed as suffixes rather than infixed. For example, some Bantuists may consider the final a of many verb stems to be itself a suffix (cf. Barlow [1960:128]), which would mean that /ir, /ag, and /It typically occur at the boundary between a verb root and the "suffix" a. I am skeptical that the "morpheme" -a can be assigned any meaning which is independent of the basic meaning of the verb root in the absence of any aspectual inflection. Thus, I think that the aspect markers should be considered as infixed in these cases as well.

There are, nevertheless, still other cases where the aspect markers do occur at the boundary between a verb root and some following suffix. For example, the aspect markers are inserted before the various verbal extensions; these include the causative marker -i, as in cokia 'return (transitive)' (causative of coka 'return (intransitive)'), whose aspectualized forms are cokirie, cokagia, cokitie, and the passive suffix -wo, as in korwo 'be found' (passive of kora 'find'), whose aspectualized forms are korirwo, koragwo, koritwo. Thus, it appears that the rule governing the position of an aspect marker in a verb stem is not particularly sensitive
to the presence or absence of a morpheme boundary per se but depends instead on a variety of unrelated factors.

Karega Mütahi has informed me that in some dialects the imperfect marker /ag occurs before a stem final sequence ua, e.g. igua 'hear, perceive' has the imperfect form igagua (vs. iguaga in other dialects). This suggests that a subpart of the rule has generalized in this dialect, from "Insert /ag before a final sequence ia" to "Insert /ag before any final sequence of a high vowel plus a". This change further suggests that the various subparts of this morphological rule are essentially independent of each other.

There are in addition some minor formation rules for the perfect marker /It involving the allomorphs /iT, /in(e), and /ir(e) (cf. Barlow [1960:137-40]). The possible significance of these allomorphs is discussed in section 4 of the paper. In general, my consultants used only the marker /It and tended to identify these other allomorphs as characteristic of other dialects.

Turning now to the forms given in Table 2, which I will designate the "imminent action" forms, these have a simpler morphological structure than the forms of Table 1, being characterized by a single prefix positioned directly before the verb stem. Thus, the schematic structure of forms in this group is:

Subject - Prefix - Stem

The category names which appear in Tables 1 and 2 have been based in part on current terminological conventions in studies of verb aspect, especially Comrie [1976], on terminology used in Barlow [1960], and in part have been coined by me. The terms "perfect" and "imperfect" correspond to Comrie's usage, while "completive" corresponds to his use of the term "perfective". (A perfect/completive contrast is less confusing than a perfect/perfective contrast.) The terms "long-perfect" and "long-imperfect" which appear in Table 1 have been coined by me, as have the terms "short-perfect" and "short-imperfect" in Table 2. (These categories will be explained more fully in due course.) The names of the past and future categories have been taken for the most part from Barlow's grammar, although I have used simply "remote past" and "remote future" where Barlow uses "remoter". However, the term "indefin-
ite (near) future" is again my own choice; Barlow refers to this category simply as "near future", but my own research suggests that the semantic feature "indefinite future time reference" should be given greater prominence in the name of this category. Another pair of terms which have been coined by me are "current past" and "current future", which I am using to denote the categories which Barlow calls "immediate past" and "immediate future". I have introduced new terms here because I think that Barlow's terminology is somewhat misleading for reasons to be explained later.

The most important over-all finding of this investigation is that the two formal groupings of verb forms represented by Tables 1 and 2 correspond to two natural classes of episodes. The "manifest action" forms of Table 1 all describe episodes which are fully developed prior to the time of speaking. This characterization covers episodes of two types: (a) those which lie entirely within the past and are separated from the moment of speaking by a lapse of time which is at least a few hours long; and (b) those which continue up to the moment of speaking but have reached a point of stable development before that time, i.e. there is no further dynamic development, only repetition within an established pattern. Most of the forms within the manifest action group describe episodes of type (a), that is, ones which are completed some time prior to the time of speaking. There are, however, two exceptional cases. First, the "long-imperfect" form (with "zero" tense and the aspect marker /ag/) describes a habitual action that is true at the moment of speaking. Thus, the episode described is one which continues up to (and beyond) the moment of speaking. But because it involves an established habit, it presents no new (or undetermined) pattern of development. Hence, the episode may be characterized as one that is "manifest". Similarly, the "long-perfect" form in Table 1 (with "zero" tense and aspect marker /It/) is a present tense form, which can describe an event whose results continue up to (and beyond) the moment of speaking. For example, sentence (2) below:

4The manifest/imminent distinction in Kikuyu which is described in what follows was originally suggested to me by the manifest/manifesting distinction which Whorf [1956:59-60] described for Hopi. I believe that these semantic contrasts in Hopi and Kikuyu are similar but probably not precisely the same category distinction.
(2) nî a-ak/îte nyũmba 'he has built a house (some time ago)'
   he-build/Perf house

can be used to convey the message that the house is now built. The sentence implies, however, that the building took place some time ago, so that the present existence of the house is an established state, not a new development.

Turning to the "imminent action" forms of Table 2, it is evident that these forms describe the complementary class of episodes, namely, those which still have the potential for dynamic development in some phase of their realization. This category includes episodes which have taken place just prior to the time of speaking as well as those concurrent with it and those which lie in the future. It is perhaps surprising that this category should include some episodes which have already taken place, but the reason for this is not difficult to perceive: a very recent episode may have unforeseen results, hence the final, result phase of the episode is as yet largely undetermined and subject to significant change. Since we have defined manifest actions as those which are fully realized in every phase of their development by the moment of speaking, it is clear that events which have just taken place must be excluded from the manifest group and included in the imminent (= non-manifest) group.

The bulk of this paper will be concerned with describing in detail the specific categories which belong to these "manifest" and "imminent" sub-paradigms. This discussion is followed by a description of the special aspectual properties of "inchoative state" verbs. To conclude the introductory discussion, however, we will consider the lexical aspect classes of verbs in Kikuyu.

1.2. Lexical aspect classes of Kikuyu. Considerable attention has been paid in recent years to the question of the inherent (or lexical) aspect classes of verbs. A number of studies, e.g. von Wright [1963], Bennett and Partee

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5I use the term "aspect class" to refer to what Comrie [1976:41] discusses under the name "inherent meaning" and Lyons [1977:706] under the name "aspect character (or Aktionsart)".

6Strictly speaking, aspect classification depends not merely on verbs,
[1972], Nordenfelt [1977], Taylor [1977], Mourelatos [1978], agree in recognizing three fundamental categories of episodes as described by verbs. I will refer to these three categories as "events", "states", and "processes". In most treatments of the subject, states are contrasted with events and processes in that states lack dynamic development, whereas events and processes both involve some form of development or change. On the other hand, events are contrasted with states and processes in that events have an inherent endpoint, i.e. to be an event, an episode must progress toward some intrinsic climax which terminates the event, whereas states and processes have no such natural end-point. Thus, any process or stative episode can typically be divided into shorter episodes which are instances of the same process or state; in contrast, events occur only at discrete intervals of time because the event is defined by its intrinsic climax. Before this climax is reached, the event has not yet occurred, and after the climax is reached, the event cannot be continued. (In many discussions of this topic, such as Comrie [1976:44], this semantic contrast is designated "telic vs. atelic" episodes.) Some examples of English stative verbs are know, love, and believe; of process verbs are run, burn, and revolve; and of event verbs are die, burn up, and build (something).

In an influential article on verb classification, Zeno Vendler [1967] added to the three-way classification described above a further distinction within the category of events, namely, a distinction between "achievements" and "accomplishments". Vendler's typology was developed in Dowty [1972] into a set of syntactic tests for membership in the four categories, and analogous tests can be established for other languages. In Kikuyu, the following syntactic tests illustrate the grammatical significance of the aspect classes. Event verbs (whether achievements or accomplishments) naturally occur with

but on verb phrases or even on whole sentences. For example, a change in quantification of the subject NP in (a) below entails a change from a process predication in (a) to an event predication in (b):

a) Water dripped through the roof.
b) A gallon of water dripped through the roof.

Nevertheless, verbs obviously play an important role in helping to determine the aspsectual classification of a sentence, and since I do not intend to treat the topic here in any depth, it will be convenient to refer only to the aspect classes of verbs.
durational adverbs preceded by the particle na (roughly equivalent to English "in x amount of time" phrases), whereas process verbs occur with durational adverbs without na (comparable to English "for x amount of time" phrases). For example:

(3) nī a-a-ak/ire nyūmba na kiumia kōmwe (Event)
   he-RP-build/Comp house in week one
   'he built a/the house in one week'

(4) nī a-ra-kiny/ire na ndagīka ithatū (Event)
   he-NP-arrive/Comp in minutes three
   'he arrived in three minutes'

(5) nī a-hanyūk/ire ithaa rōmwe (Process)
   he-run/Comp hour one
   'he ran for an hour'

A further syntactic frame which can be used to distinguish events from processes involves the complementizer verb rīkia 'to do completely, to finish'. rīkia means to reach the natural climax of an episode; hence, it allows in its complement only those verbs which can be understood as describing events. For example:

(6) nī a-ka-rīkia gw-aka nyūmba Jumataū (Event)
   he-RF-finish to-build house Monday
   'he will finish building the house on Monday'

(7) nī a-a-rīkia gū-koma (Event)
   he-SPerf-finish to-fall asleep
   'he has just fallen deeply asleep'

(8) ??nī a-a-rīkia kū-hanyūka (Process)
   he-SPerf-finish to-run
   ??'he has just finished running'

In presenting sentences like (8) to my Kikuyu consultants, I found that they were seldom rejected outright, but the consultant(s) typically supplied some additional information to explain how the sentence might be used appropriately. For example, it was suggested that (8) above might be used to describe the completion of a race. This shows that in interpreting (8), a Kikuyu speaker must supply an event-like interpretation for the predicate hanyūka before judging the sentence as acceptable.
In contrast to rīkia, there is another complementizer verb tiga (an agentive verb) which means 'to leave off doing something', i.e. 'to stop'. This verb embeds both process and event verbs but with somewhat different semantic consequences in the two cases. The verb tiga means to bring an episode to an end without the episode having reached any inherent climax. With processes, there is no natural climax, so that sentence (9) below, for example, means simply that there was an episode of running which came to an end. Note that (9) is consistent with the claim that there was an actual instance of running, i.e. that he did run.

(9) nĩ a-a-tig/ire kū-hanyūka (Process)
    he-RP-stop/Comp to-run
    'he stopped running'

Sentence (10) below, on the other hand, implies that the building activity ended before its natural climax; hence, there was no actual (complete) event of building the house. Sentence (10) is thus not consistent with the claim that he (completely) built the house.

(10) nĩ a-a-tig/ire gw-aka nyūmba (Event)
    he-RP-stop/Comp to-build house
    'he left off building the house (without completing it)'

The semantic properties of tiga are discussed again in section 2 in reference to the discussion of imperfect aspect.

Other criteria for distinguishing the aspect classes of verbs in Kikuyu involve the semantic properties of the various aspect inflections. For example, the inflectional category "imperfect aspect" has contrasting interpretations for event and process verbs. For event verbs, the most salient interpretation of an imperfect form is that the event is "imcomplete", in the sense that it is undergoing development but has not reached its climax. Without this climax, of course, the event itself does not yet exist. Thus, the assertion "he is V'ing" for an event verb V is not consistent with the assertion "he has V'ed". On the other hand, once the climax of an event is reached, the event cannot continue. Thus, the assertion of a present perfect form of an event verb precludes the assertion of a corresponding present imperfect form. My consultants consistently judged sentences like (11) and
(12) below to be unacceptable:

(11) *a-hing/ɪte mûrango na no a-ra-hinga (Event)
    he-close/Perf door and still he-SImp-close
    *'he has closed the door, and he is still closing (it)'

(12) *nɪ a-tony/ɪte7 nyûmba na no a-ra-tony
    he-enter/Perf house and still he-SImp-enter
    *'he has entered the house, and he is still entering'

With a process verb, however, the syntactic frame illustrated in (11) and (12) yields an acceptable sentence, as illustrated by (13):

(13) ihuti nɪ rɪ-erer/ɪte7 na no rɪ-r-erera
    leaf it-float/Perf and still it-SImp-float
    'the leaf has (already) floated, and it is still floating'

Sentence (13) is acceptable because floating has no necessary end-point; consequently, the assertion that an episode of the leaf's floating precedes the time of speaking is consistent with the claim that the same episode continues concurrently with the time of speaking.

Another feature of the aspect inflections which can be used to discriminate different lexical classes of verbs is the so-called "stative" meaning of a perfect form, which is possible for some verbs but not others. With ordinary verbs, a perfect form describes action completed prior to some temporal point of reference. This is illustrated by (14) and (15) below.

(14) nɪ a-hanyük/ɪte
    he-run/Perf
    'he has run'

(15) nɪ a-ra-tony/ɪte nyûmba
    he-NP-enter/Perf house
    'he had entered the house' (consistent with his being still in the house, or no longer there)

With a large class of verbs, however, the perfect form is used to describe the continued existence (at the point of reference) of some specific result

7Note application of the vowel harmony rule: î → e following a low front or back vowel in the preceding syllable.
Temporal Reference in the Kikuyu Verb

state. For example:

(16) nī a-ra-ku/īte  'he was dead'
       he-NP-die/Perf

(17) nī a-rūgam/īte  'he is standing'
       he-stand/Perf

The semantic properties of this class of verbs (which I will designate "inchoative state verbs") are discussed in detail in section 4.

As a final point, it should be noted that these syntactic "tests" do not necessarily yield a unique aspect classification for every lexical verb of Kikuyu, since many verbs will be found to function in more than one class, according to various semantic senses of the verb. This is, of course, not a peculiarity of Kikuyu but a general feature of lexical structure in all languages, and it has been previously pointed out by most other writers on this topic.

2. The Manifest Action Sub-Paradigm

In the manifest action sub-paradigm of the Kikuyu verb, there are three morphemes which mark three different aspect categories. I will describe each of these markers in turn, and show how each one interacts with the four tense categories of the manifest action group.

2.1. Completive aspect and past tense. Verb forms marked with the morpheme /ir are used to describe actions completed in the past (but not immediately prior to the moment of speaking). For example (the following forms have "zero" tense):

(18) nyūmba nī t-hī/ire  'the house burned down'
        house it-burn/Comp

(19) nī a-men/ire  mūrata wake  'he recognized his friend'
       he-recognize/Comp friend his

(20) a-hing/ire  mūrango ōcinī  'he closed the door this morning'
       he-close/Comp door morning

(21) nī a-kom/ire  'he fell asleep' (consistent with his being still asleep or having woken up again)
       he-fall asleep/Comp

The time reference of sentences (18) through (21) is typically understood as
equivalent to the time reference of a "current past" tense form, i.e. a form marked with the prefix kʊ-. The meaning of kʊ- is "reference to a time within the current time unit but somewhat earlier than the moment of speaking" (see 2.2 below for further discussion and illustration of this meaning). The time unit relevant to interpreting the current past (and other past tenses) depends upon the context and may involve days, months, years, etc. If the context of utterance determines that the relevant time units are *days*, then kʊ- means "several hours earlier today", and this is exactly how the tense reference of sentences (18) through (21) is typically understood.

One of the peculiarities of the Kikuyu verb paradigm (for which there is no obvious explanation) is the fact that the tense prefix kʊ- does not combine with the completive marker /ir. When presented with hypothetical forms constructed in this manner, such as *ekūhanyükire* (which, on analogy with near past forms, we expect to mean "he ran somewhat earlier today"), consultants reject the form as a non-word and do not volunteer any translation. As illustrated above, the expected meaning of the non-occurring form is attached instead to the "zero" or unmarked tense form of the completive aspect set. This unmarked tense form combines with the time adverbials appropriate to a current past tense form, such as ūmūthi 'today' and rūcini 'this morning' (the latter is used with a current past form when speaking in the afternoon or evening). Moreover, this ("zero") form rejects other time adverbs such as ira 'yesterday' and iyo 'two days ago', which require near and remote past tense marking respectively. This is illustrated by the three completive aspect sentences given below:

(22) nī a-kom/ire nūcinī
    he-fall asleep/Comp morning

(23) nī a-ra-kom/ire ira
    he-NP-fall asleep/Comp yesterday

(24) nī a-a-kom/ire iyo
    he-RP-fall asleep/Comp two days ago

'he fell asleep this morning'
(speaking in the afternoon or evening)

'he fell asleep yesterday'

'he fell asleep two days ago'

Note that (23) and (24) demonstrate that the meaning of the marker /ir is compatible with both near past and remote past tense. Thus, it would be
inappropriate to claim that /ir has the meaning "current past tense", even though the verb form in (22) functions as a current past tense form, since then it would be impossible to explain (except in a strictly ad hoc manner) how /ir combines with ra- in (23) to give a near past tense meaning and with a- in (24) to give a remote past tense meaning. Rather, the correct semantic interpretation of a form with the morpheme /ir is "action completed earlier than the time of speaking, at least several hours before". This interpretation gives to a form with /ir a more general meaning than any of the corresponding forms with tense prefixes, and at the same time, a meaning which is compatible with any of the more specific tense categories. Thus, for example, /ir can combine with the near past prefix ra-, whose normal interpretation is "in the immediately preceding time unit, i.e. yesterday", to yield the expected meaning, "action completed in the near past (or, yesterday)", since placing the action in the near past automatically involves saying that it is significantly earlier than the moment of speaking. Similarly, a correct interpretation of the meaning of a form marked with /ir and the remote past prefix a- is predicted by this analysis.

I have shown that a completive form with "zero" tense must be assigned a more general temporal meaning than a near or remote past tense form and that therefore, unlike forms marked by the current past prefix ku-, this form is not semantically restricted to current past time reference. How, then, do we explain the fact that this form has the same co-occurrence restrictions with time adverbs as a (perfect or imperfect) form marked with kū-? I think that this fact is best explained on the grounds that the presence of an explicit time adverb requires the co-occurrence of the tense form which is closest in meaning to the adverb. Thus, for example, ira 'yesterday' requires the use of a near past form because the more specific meaning of "near past tense" more closely matches the content of the adverb ira and similarly for the co-occurrence of remote past forms with other time adverbs.

The analysis I have proposed for the "zero" tense completive form received unexpected confirmation in the course of my field work when one of my consultants commented that a sentence such as (25)
places the emphasis on "establishing that the act is done" but does not place particular emphasis on the actual time reference. This is what we would expect if the implication of current past tense in such sentences arises only through systematic contrast of the unmarked tense form with the available options in the paradigm which have a more narrowly specified time reference.

Turning now to the meaning of the tense prefixes ra- and a-, example sentences (23) and (24) above suggest that near past tense (ra-) means simply "yesterday" while remote past (a-) means "at a time earlier than yesterday". However, examples such as these are somewhat misleading if taken in isolation, since other adverbials demonstrate that the near and remote past intervals can overlap; what is critical in choosing one or the other tense form is the relative distance of the time referred to from the time of speaking. For instance, the near past tense can be used in reference to the past two days, i.e. yesterday and the day before, although reference just to the day before yesterday requires remote past tense:

(26) ihuti nT rT-ra-kor/agwo  rT-kI-erera thiku igIrI thiru
    leaf it-NP-be found/Imp it-Imp-float days two gone
    'the leaf was repeatedly floating the past two days' (lit. 'the leaf was being found floating the past two days')

Moreover, near and remote past tense can in some instances co-occur with the same time adverb but only when the context of utterance differs in the manner illustrated by the following example:

(27) ihuti nT rT-ra-kor/agwo  rT-kI-erera kiumia kIu  kI-ra-thir/ire
    leaf it-NP-be found/Imp it-Imp-float week that it-NP-go by/Comp
    OR
    rT-a-kor/agwo
    it-RP-be found/Imp
    'the leaf was repeatedly (found) floating last week'

Since the Kikuyu week is calculated from Monday to Monday, my consultants judged that (27) would be appropriate with near past tense when speaking on a Monday or Tuesday, whereas remote past tense in (27) would be appropriate
when speaking on later days in the week. This example thus demonstrates that what matters is the relative distance of the time period referred to from the time of speaking.

Note that in sentence (27), the expression for "last week" is constructed with the use of a near past tense form in a relative clause (regardless of what tense is used in the main clause). Expressions for "last month" and "last year" are constructed analogously, i.e.

\[(28)\]

- a. mwerī ụyụ ụ-ra-thir/ire
  month that it-NP-go by/Comp 'last month' (lit. 'that month which went by in the near past')
- b. mwaka ụcọ ụ-ra-thir/ire
  year that it-NP-go by/Comp 'last year'

Reference to a year previous to "last year" involves the use of remote past tense in a relative clause, e.g.

\[(29)\] mwaka ụcọ ụngī w-a-thir/ire
  year that other it-RP-go/Comp 'the year before last' (lit. 'that other year which went by in the remote past')

All of the facts outlined above suggest that the correct semantic interpretation for the near and remote past tenses is as follows:

- **Near past**: reference to a time period which ends within the time unit (day/month/year/etc.) which immediately precedes the current time unit
- **Remote past**: reference to a time period which ends prior to the time unit which immediately precedes the current time unit

Whether the relative positions of the near and remote past are to be calculated in terms of days, months, years or some other time unit depends upon the context of utterance in as yet undetermined ways. However, it is clear that when not otherwise indicated by context, the appropriate time unit is taken to be days, so that the near past refers to time periods ending yesterday while the remote past refers to time periods ending prior to yesterday.

Thus far, I have provided a semantic description of the tense prefixes ra- and a- and of the aspect marker /ir. The meaning given above for
/ir has a tense-like component in that it restricts the reference of a form to actions completed in the past. For detailed justification of the claim that this is indeed a marker of an aspect category rather than a tense category, see Johnson [to appear].

2.2. Perfect aspect and "current past" tense. A Kikuyu perfect form is semantically comparable to an English perfect form (have + past participle); that is, it describes an episode which occurs prior to some specified temporal point of reference. However, the Kikuyu marker /ɪ/ differs from the English perfect form in that it must co-occur with some member of a more explicit set of past tense markers than is available in English. This rich system of tense marking is illustrated again below:

(30) a. nɪ a-hanyūk/ɪte
he-run/Perf
'he has run' (the running took place some time ago)

b. nɪ e-kū-hanyūk/ɪte
he-CP-run/Perf
'(somewhat earlier in the current time unit) he had run'

c. nɪ a-ra-hanyūk/ɪte
he-NP-run/Perf
'(in the near past) he had run'

d. nɪ a-a-hanyūk/ɪte
he-RP-run/Perf
'(in the remote past) he had run'

Another peculiarity of the manifest perfect forms in Kikuyu is that in the present tense (with "zero" tense marking), there is a systematic contrast between the manifest long-perfect form and the short -perfect form of the imminent action group:

(31) a. nɪ a-a-hanyūka
he-SPerf-run
'he has just run' (typically, within the last few hours)

b. nɪ a-hanyūk/ɪte
he-run/Perf
'he has (already) run' (more than a few hours ago)

In contrast to (31a), (31b) describes an episode of running which precedes the specified point of reference (namely, the time of speaking) by at least a few hours. There is no comparable contrast in the past tenses: thus, for example (30c) above can describe an episode of running which immediately precedes the specified point of reference (in the near past), or which precedes it by some (indefinitely large) lapse of time. In Johnson [to appear]
I have argued that the specialized meaning of a manifest perfect form with "zero" tense is a consequence of the interaction of present tense and perfect aspect with the category manifest action. To be manifest, an action must be fully realized prior to the time of speaking; this semantic condition is compatible with a present perfect meaning such as "he has run" only if the action of running is construed as taking place significantly prior to the time of speaking.

In section 2.1 above, I gave a semantic characterization of ra (near) and a (remote past tense), but I have not as yet described the prefix kū-, for which I have coined the term "current past tense". This prefix is unusual for a number of reasons. For one thing, most other Bantu languages seem to have only a near past/remote past contrast, which suggests that the three-way contrast in Kikuyu is a relatively recent innovation in the system, rather than a feature inherited from proto-Bantu. Another oddity of kū- is the fact (noted above) that it fails to combine with the completive marker /i/. The missing form seems to be "pre-empted" by the "zero" tense form, which for paradigmatic reasons is used to express the semantic category "current past tense". The significance of this type of pre-emption is at present obscure, but it does seem likely that it would not be a historically stable feature of the system, so that the lack of a form combining kū- with /i/ would count as further evidence of the innovativeness of this tense category.

Another peculiarity of the prefix kū- is that it is formally identical with the prefix kū- of the imminent action group, the "current future" marker. The obvious semantic symmetry of these two markers is illustrated in (32a/b) below:

(32) a. ni e-kū-igu/Te ngengere  'he had heard the bell (earlier today, a few hours past)'
    he-CF-hear/Perf bell

b. ni e-kū-igua ngengere  'he will hear the bell (later today, a few hours hence)'
    he-CF-hear bell

(Note the alternation a → e in the subject marker a-, which is triggered by both the past and the future markers.) This semantic symmetry suggests that at some level of analysis, kū- should be considered an "extended
present tense" marker with the meaning "reference to a time within the current time unit but somewhat removed from the actual moment of speaking". Past or future time reference is thus not intrinsic to the meaning of kū- but arises as a consequence of the prefix's paradigmatic role, i.e. whether its slot on the verb brings it into systematic contrast with past or future markers.

Both the current past and the current future markers are probably derived historically from the locative noun prefix kū- (Class 15), which is used in forming place nouns, e.g. kūndū 'area, stretch of space', and locative adverbs, e.g. kūria 'there'. As Anderson [1973] has shown, it is commonplace for morphemes to be borrowed from spatial reference systems into temporal systems among all the languages of the world. Moreover, the meaning of kū- as a noun prefix supports the basic semantic analysis given to temporal kū-. Barlow [1960:26] glosses kūndū as 'a place (in the wider sense: a locality, district)', as opposed to handū 'a place (a certain spot; a limited area)'. Thus, spatial kū- contrasts semantically with ha- in terms of a contrast between extended and limited stretches of space, in a manner analogous to the contrast between what I have called "extended present" (referring to times within the present time unit) and a conventional present tense (referring to the actual moment of speaking).

There is one other significant point which sets kū- apart from the other two past tenses. What the "current past" category seems to mean is reference to a time wholly contained within the current time unit (and preceding the actual moment of speaking by a certain lapse of time). This

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8 This interpretation of the semantic difference between ha- and kū- is also supported in Denny [1978].

9 In what follows, I provide evidence that the treatment of current past tense in Johnson [to appear], in which I used Barlow's term "immediate past" for the category, was inappropriate. There, I assimilated the interpretation of this category to the interpretations of the other past tenses. In reconsidering my data, however, I have reached the conclusion that kū- has rather specialized semantic properties and that the apparent parallelism with the other tenses (suggested in the original name) is misleading. The semantic description given here, I now believe, is a truer representation of the facts.
differs from the interpretation of the other past tenses in that the time reference is defined by the position of the whole interval referred to, rather than just the end of the interval. My main reason for thinking that this interpretation of kū- is correct is that kū- in combination with the imperfect marker /ag does not express an habitual action meaning. Compare (33a) with (33b) below:

(33) a. nī a-ra-hanyük/aga
    he-NP-run/Imp
    'he was running (yesterday)' OR
    'he was about to run (yesterday)' OR
    'he used to run (up until about yesterday)'

    b. nī e-kū-hanyük/aga
    he-CP-run/Imp
    'he was running (earlier today)' OR
    'he was about to run (earlier today)' OR
    ??'he used to run (up until about a few hours ago)'

In my notes, I do not have any cases of kū-/ag forms such as (33b), which were interpreted as habitual action forms. The reason may be that habits do not characteristically end so abruptly that a speaker can pinpoint the end within the last few hours. However, I am inclined to think that the real reason is that kū- is restricted to actions encompassed within the present time unit, and when the time unit is taken as "today" (which is the case in a neutral elicitation context), then the length of time involved for the whole action is too brief to admit a habitual action interpretation. If this interpretation of the facts is correct, then the category "extended present" marked by kū- plays a unique role in the Kikuyu tense system.

2.3. Imperfect aspect. The morpheme /ag marks imperfect aspect within the manifest action sub-paradigm, and it co-occurs with each of the three tense prefixes ( kū-, ra-, a- ) or with none of them, i.e. with "zero" tense. In the past tenses, an imperfect form can have a variety of senses or interpretations which depend in part on the semantic properties of the verb. For example, as indicated in section 1, the imperfect form of an event verb has the meaning of "incomplete action", illustrated again below:

(34) nī a-a-ku/aga
    he-RP-die/Imp
    'he was dying' (i.e. he had not yet died)

(35) nī a-a-tony/aga nyūmba
    he-RP-enter/Imp house
    'he was entering the house' (i.e. he was not yet in the house)
Sentences such as (34) and (35) (like their English counterparts) do not strictly entail that the "he" referred to ever did die or that he ever completed the act of entering the house. The failure of this inference as a strict semantic entailment of the category imperfect is illustrated by sentences such as (36) below (the point is illustrated with the short -imperfect prefix ra- of the imminent action series but is valid for all imperfect forms of the language):

(36) nǐ a-ra-aka nyūmba no nd-a-r-enda kū-mī-rīkia
    he-SImp-build house only not-he-SImp-want to-it-finish

    'he is building a house, but he doesn't intend to finish it'

Normally, when asserting the first clause of (36), I believe that a speaker would imply that he expects the whole house to be built (otherwise, his statement would be misleading). However, the fact that this assertion can be elaborated as in (36) without producing a simple self-contradiction shows that the meaning of the imperfect includes only an expectation of ultimate completion, not a factual claim that the event indicated must be completed at some later time.

For a process verb, the "incomplete action" meaning of the imperfect does not involve an entailment that there is as yet no instance of the process named because a process has no inherent end-point; thus, for example, a process verb in imperfect aspect can be given the interpretation illustrated in (37):

(37) nǐ a-a-hanyūk/aga
    he-RP-run/Imp

    'he was in the midst of running' (i.e. he had already done some running, and he intended to continue)

It is because process verbs in imperfect aspect can be interpreted in this way that (as described in section 1) a perfect form of a process verb can be conjoined with an imperfect. This is illustrated again in (38):

(38) nǐ a-a-hanyūk/Tte, na no a-a-hanyūk/aga
    he-RP-run/Perf and yet he-RP-run/Imp

    'he had (already) run, and yet he was (still) running'

However, in spite of these differences between the "incomplete action" mean-
ings of process and event verbs in imperfect aspect, I believe that there is a single "imperfective" meaning common to both cases, namely the idea of an episode which is in some sense already "underway" and which is expected to continue beyond the point in time referred to by the speaker. In other words, the action described is one which is in part unrealized at the time point referred to by the speaker because the time span of the action projects beyond that reference point, but it is nevertheless one which, from the perspective of the reference point, can be reasonably expected to take place in full. With event verbs, it is the expectation of continuation beyond the point of reference which gives rise to the entailment that the climax of the event has not been reached because (by definition) an event cannot continue beyond its climax. In contrast, a process has no inherent climax, so that the question whether or not this climax has been reached simply fails to arise.

The most problematic part of the proposed definition of imperfect aspect is the claim that the episode described must be "in some sense underway" and that ultimate realization of additional parts of the episode must be a reasonable expectation at the time referred to. This is problematic because the use of a Kikuyu imperfect form does not strictly require that the episode has already begun at the time referred to. Like the imperfects of many languages (including the English progressive form), the Kikuyu imperfect allows a strictly "futurate" interpretation, as illustrated below:

\[(39)\] nī a-a-tony/aga nyūmba
he-RP-enter/Imp house
'he was just about to enter the house'
(i.e. he was intending to enter the house, but he has not actually undertaken the action as yet)

\[(40)\] nī tū-ra-ku/aga mūrigo
we-NP-carry/Imp load
'we were to carry the load' (committed to the action, although not carrying it out as yet)

In discussing this futurate interpretation, one consultant commented that (40) "expresses an attitude of cooperation", i.e. the imperfect here is used to provide information about an agent's intentions to carry out certain actions rather than about the actions themselves.

Although the futurate interpretation of the imperfect is quite salient
for Kikuyu speakers, it is not equally viable for all verbs. In general, this interpretation strongly favours agentive verbs over non-agentive verbs. (The facts here are strikingly similar to comparable facts about English.) I believe that this apparent restriction to agentive verbs does not indicate that the futurate meaning of the imperfect directly expresses agency but rather that this interpretation requires that the episode so described be one which can be predicted with a high degree of accuracy. When an agent intends to carry out a certain action, then this provides strong grounds for claiming that the action really will take place even if it has not yet begun. Under normal circumstances, there are no comparably strong grounds for claiming that a non-agentive episode (such as blinking or floating) will take place. Thus, the futurate sense of the imperfect can be viewed simply as a special case of its basic meaning which arises when the "latter, unrealized but expected portion" of the episode, turns out to be the whole episode itself. In every use of the imperfect, there is some latter portion of the episode which is as yet unrealized but which is expected to occur on the basis of prior intentions or other pre-determining circumstances. If the whole episode is of a type that is predictable from prior circumstances, a strictly "futurate" interpretation for the imperfect thus becomes possible.

It is worth noting that futurate interpretations of the imperfect also appear to favour first person forms over third person forms. For example, my consultants offered (41) below as a paradigm example of this use of the imperfect:

(41) rucinī nī n-gū-uk/aga$^{10}$ no n-dī-r-oka

>morning I-CP-come/Imp only I-not-SImp-come

'I this morning I was coming (i.e. intending to come), but (now)
I'm not coming'

In (41), the speaker is discussing his own intentions and therefore has good grounds for asserting that the episode described was a reasonable expectation earlier that day even though he knows that it subsequently never materialized (and never will). This example thus supports the contention that

$^{10}$Note that application of Dahl's Law: k $\rightarrow$ g before a following voiceless consonant or th ($\rightarrow^{*}c$).
what is at issue here is not simply whether the episode described is agentive or not but whether it is (was) a reasonable expectation at the time referred to.

Another consideration in support of my analysis is the meaning of the complementizer verb tiga 'to leave something behind, to stop doing something'. The semantics of tiga is strikingly similar to the semantics of the imperfect, as illustrated in (42):

(42) nī a-ra-tig/ire kū-hanyūka
    he-NP-stop/Comp to-run

'he stopped running' (i.e. (a) he was in the midst of running and stopped, OR (b) he was intending to run but decided not to)

Interpretation (a) of (42) is parallel to the "incomplete action" meaning of the imperfect while interpretation (b) is like the "futurate" meaning. It would be odd for imperfect aspect and the verb tiga to be ambiguous in precisely analogous ways, without there being some intrinsic connection between the two putative "meanings".

There is yet another possible interpretation for the Kikuyu imperfect form: this is the iterative/habitual meaning, which is attached to the category imperfect in many other languages as well. This interpretation is applicable to both process and event verbs:

(43) ihuti nī rī-r-erer/aga
    leaf it-NP-float/Imp

'the leaf used to float (in the near past)'

(44) nī a-a-igu/aga ngengere
    he-RP-hear/Imp bell

'he used to hear a bell' (may or may not have been the same bell each time)

(45) nī a-a-kiny/aga Nairobi
    he-RP-reach/Imp

'he used to reach Nairobi'

(46) nī a-a-rīk/agia nyūmba
    he-RP-finish/Imp house

'he used to finish a house' (obviously in this case, a different house each time)

Again, this is an ambiguity shared by tiga: sentence (42) above can mean 'he used to run, but he stopped'. I believe that what is involved here is not an ambiguity in the category imperfect aspect per se (nor in the verb tiga) but rather an ambiguity in what a verbal predicate can describe. For
example, a verb such as hanyūka 'run' is ambiguous as to whether it describes a particular episode at a particular time or the habits and disposition of an individual over a protracted period of time. Similarly, the iterative/habitual meaning of the imperfect, as in

\[(47) \text{nī a-ra-buc/agia}\]
\[\text{he-NP-blink/Imp}\]
\[\text{he-repeatedly/habitually blinked (in the near past)}\]

depends upon the potential for the verb bucia to refer either to a single incident of blinking, or to an iterated series of such incidents. If this understanding of the facts is correct, then the characterization of imperfect aspect which I have proposed above is adequate to account for all of the interpretations of the category represented in examples (43) through (47) above.

There is an important restriction on the possible interpretations of /ag when it occurs with "zero" tense. In such forms, the tense is understood as the present, and the meaning is restricted to habitual action. For example:

\[(48) \text{nī a-hanyük/aga}\]
\[\text{he-run/Imp}\]
\[\text{he-usually/habitually runs}\]

vs.

\[(49) \text{nī a-a-hanyük/aga}\]
\[\text{he-RP-run/Imp}\]
\[\text{(in the remote past) he was in the midst of running OR 'he was about to run' OR 'he used to run'}\]

The failure of forms such as (48) to express any sub-category of the imperfect other than habituality can be explained on the grounds that the categorization "present imperfect" is consistent with the categorization "manifest action" only if the action described is understood as a (protracted) habit rather than a single, relatively punctile occurrence. For details of this explanation, see Johnson [to appear].

This completes the discussion of the semantics of the aspect infix /ag. However, for the interest of those with a specialized knowledge of Kikuyu structure, something must be added here about the relationship between this morpheme and the infixed /ag which co-occurs with the indefinite (near) and remote future forms of the imminent action sub-paradigm. The existence
of forms such as akahanyükaga (he-RF-run/ag) and arThanyükaga (he-NF-run/ag) is noted in Barlow [1960:143-144]. There is very good evidence that this second /ag, which I will henceforth designate /ag₂, is semantically and syntactically distinct from the /ag which functions as an imperfect marker in the manifest action sub-paradigm. (This is not to deny an etymological relationship between the two morphemes.) The facts which support this distinction between (inflectional) /ag and (adverbial) /ag₂ are as follows. First of all, the /ag₂ which co-occurs with a future marker does not have the full range of interpretations of an imperfect marker: its meaning is simply "repetition":

(50) nǐ a-ka-hanyük/ag₂ 'he will repeatedly/habitually run'

Secondly, and equally important, /ag₂ always has wide scope over its entire sentence whereas the inflectional marker /ag need not. This fact became evident from sentences (51) and (52) below: (52) is acceptable because the time adverb has wide scope over the imperfect marker /ag, but (51) is unacceptable because /ag₂ must have wide scope. The meaning of (51) is "repeatedly he will run tomorrow at 10 o'clock", and this meaning is anomalous because ten o'clock does not recur within tomorrow.

(51) *nǐ a-ka-hanyük/ag₂ rūciū thaa ikumi
     he-RF-run/ag₂ tomorrow hour ten
(52) nǐ a-ra-hanyük/ag₂ ira thaa ikumi
     he-NP-run/Imp yesterday hour ten
     'he was running yesterday at ten o'clock'

A third point illustrating the difference between /ag and /ag₂ is that /ag₂ can co-occur with the prefix kI- in instances where kI- is itself a marker of imperfect aspect (kI- marks imperfect aspect on syntactically dependent verbs). Barlow [1960:145] gives the following example of /ag₂ in this context: sentence (53) shows the imperfect use of kI- (in the absence of /ag₂) while (54) shows the same construction with /ag₂:

(53)
(53) tu-nog/ire tu-giT-thiT\textsuperscript{11} 'we got tired as we went (were going)'
we-get tired/Comp we-Imp-go
(54) n-gü-rTa n-giT-thi/aga 'I shall eat as I go along'
I-CF-eat I-Imp-go/ag\textsubscript{2}

According to Barlow, the form of the second verb in (54) "has a similar use to the above [i.e. the second verb in (53)], but the continuance of the action is more particularly expressed" (p. 145). It seems clear that this use of /ag\textsubscript{2} is analogous to the one shown in (50) above and that it does not involve inflection of a verb for the category of imperfect aspect.

Finally, it is worth noting that the use of /ag\textsubscript{2} as a sentence adverb meaning "continuously" or "repeatedly" is found only in grammatical contexts where it could not be confused with the inflectional marker /ag and that in these instances there is a good alternative account of the syntax of /ag\textsubscript{2}. That is, there appears to be a class of sentence modifiers in Kikuyu which occur as infixes on complex verb forms. Another member of this class is kT- (again, a morpheme homophonous with an imperfect marker but contrasting in meaning). Barlow [1960:264] describes this use of kT- as follows:

"Ki is a particle which affects neither mood nor tense, but which may be infixed into any verb of whatever mood or tense. Its function appears to be that of a connective, with the force of "so", "then", etc. Its position in the verb is always directly before the stem in verbs which have no objective infix and directly before the objective infix when that is present."

An example of the use of kT- as a sentence connective is sentence (55):

(55) ni tw-a-giT-kiny/ire 'in due course, we arrived'
we-RP-kT-reach/Comp

I would conclude from the foregoing points that ag\textsubscript{2} is not an inflectional marker and need not be equated with the ag of the manifest action sub-paradigm.

\textsuperscript{11}Barlow discusses this morpheme under the heading "RT Near Future Tense" but describes it as "an indefinite near future and may be applied either to the day of speaking or beyond it" (Barlow [1960:131], emphasis mine).
3. The Imminent Action Sub-Paradigm

The prefixes of the imminent action sub-paradigm of Kikuyu, which were illustrated in Table 2, provide an exhaustive set of possible descriptions of episodes that are partially realized in regard to the moment of speaking. These descriptions include the range of episodes from those occurring just prior to the moment of speaking (typically, within the last few hours) to those expected to occur at times indefinitely far ahead in the future.

3.1. Short-perfect and short-imperfect. The meaning of the Kikuyu short-perfect form, marked by the prefix a-, is "action completed just prior to the moment of speaking". In this part of the Kikuyu temporal paradigm, there is no contrast between a present perfect and a past completive; thus, for example, the form aakua (he-SPerf-die) covers the meaning of English 'he just died' as well as English 'he has just died' (cf. Barlow [1960:54, 134]).

Like an English present perfect, the Kikuyu short-perfect can be used to imply (conversationally) the continuing existence of some result state (at the moment of speaking):

(56) ni a-a-hinga mūrango 'he has just closed the door'
    he-SPerf-close door

This sentence can be used with the implication that the door is still closed. This is not part of the semantics of the sentence, however, since (56) is consistent with a situation in which the door has been opened again.

The Kikuyu short-imperfect form has the meaning of an ordinary imperfect form (as described in the preceding section), with the additional semantic feature that the action described (if it has begun at all) has been going on for a relatively short period of time. The short-imperfect thus contrasts with the present tense, (long-) imperfect of the manifest action sub-paradigm, as illustrated again in (57) and (58):

(57) a-ra-hanyuka 'he is running right now' OR 'he is just about to run'
    he-SImp-run

vs.

(58) a-hanyük/aga 'he habitually runs'
    he-run/Imp
As explained in section 2 (57) describes an extended episode of running that projects beyond the moment of speaking; hence, it is natural to interpret this form as describing an habitual action. In contrast, (58) describes a relatively short episode of running or one which has not yet begun (although it is "just about" to take place). This restriction to periods of time which begin no earlier than times somewhat before the moment of speaking tends to make an "incomplete action" meaning the most natural interpretation of a Kikuyu short-imperfect form. A futurate interpretation is also always possible, subject to the pragmatic constraints outlined in section 2. A habitual action interpretation is less frequently perceived but nevertheless possible in principle (thus showing that ra- is a true imperfect marker). A sentence for which an habitual action interpretation was spontaneously offered is (59):

(59) nū a-ra-rūkia nyūmba '(these days) he finishes a house' (implying that a short time ago, he didn't bother to do so)

Another pair of sentences illustrating well the semantic contrast between the short-imperfect of the imminent action group and the (long-)imperfect of the manifest action group is (60a/b):

(60) a. nū ma-kor/agwo ma-kī-rūa rūcinī
they-be found/Imp they-Imp-fight morning
'they are (usually) fighting in the morning' (lit.: 'they are being found fighting in the morning')

b. nū ma-ra-korwo ma-kī-rūa rūcinī
they-SImp-be found they-Imp-fight morning
(meaning as above, except that the fighting began more recently)

Sentence (60b) describes an emerging pattern of behaviour, (60a) describes a habit of long-standing. Sentences (60a/b) differ morphologically only by whether the auxiliary verb korwo is marked by the (long-)imperfect marker /ag of the manifest action series or the short-imperfect marker ra- of the imminent action series. This example thus shows that the crucial semantic feature that distinguishes these two forms is whether or not the initiation of the action preceded the moment of speaking by a relatively long per-
iod of time.

3.2. Future time. The essential meanings of the three Kikuyu future markers are as follows:

A. Current future (kū-): reference to a time somewhat later than the time of speaking but within the time unit already entered upon, i.e. "later today/this month/etc".

B. Indefinite (near) future (rT-): (i) reference to an indefinite future time and/or (ii) reference to a time that is relatively nearer (than times in the remote future) and/or (iii) reference to an action in the future that is relatively less certain to occur.

C. Remote future (ka-): reference to a time that is in a unit of time not yet entered upon, i.e. "later than today/this week/etc."

The meaning of the current future category is analogous to that of the current past: the former means "reference to a time somewhat later within the current time unit" while the latter means "reference to a time somewhat earlier in the current time unit". As I argued in section 2.2 above, these meanings can be seen as arising from a more general notion of "extended present", which interacts with the meanings of the "manifest" and "imminent action" paradigms to give the more specific meanings current past and current future. In the latter case, the meaning current future arises from the fact that forms in the imminent action sub-paradigm can only refer to times which are either just before or later than the moment of speaking. Because of this restriction, a time that is somewhat removed from the moment of speaking yet within the current time unit must be later than the moment of speaking.

My consultants volunteered the information that when speaking very early in the day (month, etc.), it is preferable to use an indefinite (near) future form to refer to times that are very late in the day rather than using a current future form. This observation is undoubtedly of major significance in understanding how the Kikuyu tense system works, although it is impossible to evaluate its full significance without knowing whether similar vacillation occurs in the choice of other past or future categories. One possible explanation for this type of vacillation is that it arises from the essential ambivalence of a category boundary in the traditional system of tempor-
al units in Kikuyu. This aspect of the tense system tends to be obscured in the example sentences given here by the use of calendrical terms which have (in principle) a precise definition. However, in ordinary conversation, even the units of European clock-time are not necessarily used with precision. It is therefore reasonable to suppose that a speaker located on the boundary of a new time unit, i.e. "very early in the day", may experience some uncertainty as to whether a time which is late in the day is in "this unit" or "the next unit". One possible solution to such a dilemma is to select the indefinite (near) future category which (as I suggest below) seems to be more general in meaning than either of the other two future categories. (The problem I have just described is analogous to the difficulty experienced by English speakers in deciding what time unit "today" refers to when speaking, for example, at 1 a.m.)

The current future marker ku- contrasts with the futurate meaning of the short-imperfect marker ra- in terms of the relative immediacy of the action. This is illustrated in (61):

(61) a. nĩ a-ra-koma
    he-SImp-fall asleep
    'he is just about to fall asleep'

    b. nĩ e-gū-koma
    he-CP-fall asleep
    'he will fall asleep soon' (but later than the time indicated by (a))

At present, I am undecided as to whether this contrast is strictly tied to the relative distance of the action from the moment of speaking or whether it involves the related notion of the imminence of the action in terms of its likelihood of occurrence.

The contrast between remote past and remote future is less symmetrical in Kikuyu than the current past/current future contrast. The remote future means "later than the current time unit". However, the corresponding past time interval, namely "earlier than the current time unit", does not correspond to any one past tense; rather, reference to this time interval is divided between the near past and the remote past. Among the past tenses, special status is assigned to the immediately preceding time unit, but in making reference to future times, the immediately following time unit is not highlighted in a comparable manner.
The most complex morpheme of the imminent action group is the prefix rī-, which I have called the indefinite (near) future (cf. fn. 11). As I indicated in the definition given above, this morpheme appears to have several semantic components. However, the most salient meaning is reference to an indefinite future time. My consultants told me repeatedly that this future marker is used when the speaker has no specific time in mind; they even affirmed on a number of occasions that this form should not be used with an explicit time adverb. We can refer to this as the indefinite future use of rī-. Contrary to their claims about the use of adverbs with rī-, however, my consultants accepted sentence (62):

(62) nī tū-rī-hinga mūrango hwaī-inī 'we will close the door this evening'

I was told that (62) is acceptable (in place of a sentence with the current future marker kū-) if speaking very early in the day. We will call this the near future use of rī- because in this case the action described is relatively close to the time of speaking, i.e. implicitly the speaker rejects remote future marking as implying too great a distance to the predicted episode. I suggested above that the use of rī- (rather than kū-) is acceptable in sentences like (62) because the context described creates uncertainty as to whether the time referred to is in "this time unit" or "the next time unit". If we assume that rī- is a generalized future category, meaning "reference to a time later than now" (without regard to relative nearness), then we can explain the two apparently diverse uses of rī- as follows: rī- is used as an indefinite future marker when the speaker, through uncertainty as to the specific time of occurrence of a predicted episode, lacks sufficient information to choose between (the alternative categories) current future and remote future. On the other hand, rī- is used as a near future marker when the speaker is located on the (vague) boundary between two temporal units. Again, the speaker lacks sufficient information to choose between the alternatives, current and remote future, but the reason for this is different: in this case, the speaker is uncertain as to whether he has crossed the boundary between one time unit and the next; hence, he is uncertain which unit counts as the "current one". To avoid this
dilemma, he selects the generalized future, which does not specify which time unit the episode described is in. Since the problem here arises because the speaker is located on the boundary of two time units, and the episode described is close to the immediately following boundary, there is an implication of relative nearness in this use of rT-.

The third function of the prefix rT- is to express relative uncertainty: the other future markers make stronger predictions than does the indefinite (near) future. For example, one consultant commented that sentence (63):

\[(63) \text{nī a-rT-kuua mūrgo} \quad \text{'he will carry away the load' (soon, but no definite time)}\]

makes a weak claim, which might be rendered as, "The occasion will arise for him to carry away the load." The corresponding sentence with a remote future form, however, would make the stronger claim that the person referred to definitely would carry away the load. I do not have any specific proposal to make about how this aspect of meaning came to be associated with the indefinite future marker. Nevertheless, it seems reasonable to suppose that a detailed theory of the pragmatic organization of future time reference would reveal a systematic relation between this and other meanings expressed by rT-. There is a fairly obvious intuitive connection between the ideas of "indefiniteness" and "uncertainty", so that again, I do not think that it is necessary to assume that rT- is lexically ambiguous.

This completes my semantic description of the aspect inflectional system for non-inchoative verbs in Kikuyu. An important dimension of the system which has not been touched upon here is the discourse/pragmatic functions of the aspect categories. Talmy Givón has suggested that my completive marker most likely fills the role of the "in-sequence, backbone-of-narrative" category in discourse, while the imperfect expresses the "non-punctual, background information" category and the perfect fulfills the "anterior, out-of-sequence" role. For further discussion of the discourse functions of an aspect system (as well as further discussion of ChiBemba in relation to other languages), see Givón [n.d].
4. Inchoative State Verbs and the Morpheme /t/

Thus far, I have said nothing about the special aspectual properties of the inchoative state verbs of Kikuyu. These verbs are well-known not only to Bantuists but also to general theorists on verb aspect (cf. Comrie [1976:56-58]; Lyons [1977:714-715]) because of the fact that their completive forms are used to express a change of state while their perfect forms are used to describe the corresponding states. For example:

(64) Complete form (RP)                      Perfect form (RP)
    a-a-nog/ire    'he became tired'        a-a-nog/ete    'he was tired'
    a-a-rūar/ire   'he fell sick'          a-a-rūar/tte    'he was sick'
    w-a-hor/ire    'it [a fire] went out'  w-a-hor/ete    'it was out'

Verbs such as noga, rūara, and hora have been called (within the Bantuist tradition of Clement Doke) *stative* verbs because they are characteristicly used to denote states in the manner shown above. However, Fortune [1949] has argued that they should be called *inchoative* verbs because in his view the idea of inchoation is both essential and primary to their meaning. I have settled upon the term *inchoative state* verbs for the simple reason that both inchoation and stativity seem to be essential components of the meaning of these verbs.

The phenomenon described above is not restricted to intransitive verbs, being found also among transitive verbs:

(65) Complete form (RP)                      Perfect form (RP)
    a-a-nyit/ire mwana    a-a-nyit/ete mwana
    'she took hold of the child'        'she was holding the child'
    a-a-hing/ire mūrango       a-a-hing/ete mūrango
    'he closed the door'         'he had the door closed'

Other verbs which participate in this semantic pattern are kua 'die', hona 'heal' (transitive and intransitive), rīkia 'finish', ṭīkia '(come to)believe in', ritūha 'become heavy', nyoroka 'become smooth', uraga 'kill', ciarwo 'be born', kīra 'wake', menya 'come to know', haana 'ressemble', enda 'love', una 'break' (transitive), ikara thī 'sit',
imba 'swell', and many more. This phenomenon is a pervasive feature of the lexical structure of all Bantu languages, and raises important semantic questions concerning both lexical and inflectional meaning. In what follows, I will attempt to clarify what these issues are and what form the answers are likely to take.

4.1. Aspectual inflection of an inchoative state verb. An inchoative state verb is one which is used (in its various inflected forms) to describe both states and their associated events, i.e. the coming-about of the states. As I have just illustrated, it is typically the perfect form of an inchoative state verb in Kikuyu which describes a state and the corresponding completive form which describes the associated event. These meanings for the perfect and completive forms of inchoative state verbs are the most salient interpretations (the ones most readily offered as translational equivalents) but they are by no means the only possible meanings for such forms. To see just how the temporal paradigm of an inchoative state verb differs from the semantic pattern of other verbs, let us consider the set of aspectual inflections for the verb rūara 'fall sick'.

In its completive forms, rūara typically describes an event of becoming sick. However, when a durational adverb is included (such as kiumia kīmwe 'for one week'), the resulting combination describes a state of being sick for the specified length of time. Compare, for example, (66) and (67):

(66) nī a-ra-rūar/ire
     he-NP-fall sick/Comp
     'he fell sick (in the near past)'

(67) nī a-ra-rūar/ire kiumia kīmwe
     he-NP-be sick/Comp week one
     'he was sick for one week'

My interpretation of these facts is that the verb rūara can refer either to a change of state or to the state itself; that is, it is systematically ambiguous in the way that English sit is systematically ambiguous between the meaning 'come to be seated' and 'remain seated'. The change of state meaning is more salient than the simple state meaning: (66) by itself would not typically be used to express the idea 'he was sick', since there are preferred alternative means of conveying this message. However, since events lack duration, the presence of a durational adverb in (67) forces a stative
interpretation of the verb. This shows that reference to an event or a state is inherent in the lexical meaning of an inchoative state verb and is not (as many Bantuists have tended to assume) a simple function of which aspect inflection the verb combines with.

A perfect form of an inchoative state verb has three possible interpretations, as illustrated below:

(68) nɪ a-ra-rūar/Tte
    he-NP-{fall} sick/Perf

a. 'he had fallen sick'
b. 'he had been sick'
c. 'he was sick'

The first two interpretations shown above correspond to the expected meanings that arise from "perfect aspect" in combination with the two lexical meanings of the stem. It must be stressed, of course, that gloss (a) is much more salient for speakers than gloss (b), the latter never being offered spontaneously by my consultants. However, having realized that this interpretation should be possible in principle, I asked one of my consultants about it. After considerable preliminary discussion, it suddenly struck him that (69) could be used with the meaning (b) provided that the context had already established that the person was well at the time referred to. This discovery thus confirmed that ŋūara is lexically ambiguous and that the ordinary perfect meaning of /Tt/ is applicable to either meaning of the verb.

Gloss (c) of example (68), the so-called "stative" meaning, is of course even more salient for speakers than either (a) or (b), as illustrated in (69)

(69) nɪ a-ku/Tte
    he-die/Perf

'he is dead'

The translation most readily offered for an inchoative state verb in perfect aspect (typically the only translation offered) is a simple state interpretation. The difficult question that this fact raises is whether this stative meaning is independent of the other glosses or whether it is derived from the ordinary perfect meaning, perhaps by a conversational implicature of the type described by Grice [1974]. It is true that in a great many languages a perfect form can be used to conversationally imply the continuing existence of some result state, as (for example) English 'he has fallen sick' can convey 'he is now sick'. However, in English it is clear that this fact is a reflection of the pragmatic structure of conversation rather than a part of the
explicit semantics of perfect aspect. In Kikuyu, some event verbs behave in essentially the same way as corresponding English verbs. For example, tonya 'enter' is an event verb which describes an action of 'going inside' but is not characteristically used to denote the corresponding state of "being inside". Consequently, sentence (70):

(70) nĩ a-a-tony/ete nyũmba 'he had entered the house'
  he-RP-enter/Perf house

can imply (conversationally) 'he was still in the house', but the sentence is understood to be consistent with a situation in which he had left again. Speakers do not perceive the implication of a continuing state as the primary semantic content of the sentence. This fact suggests that in examples such as (68) and (69), where the stative meaning is perceived as primary, something more than conversational implicature is involved. In section 4.2 below I will present evidence that these examples involve a secondary meaning for the morpheme /ɪt/, which I will designate the "persistent-state" meaning.

Before turning to that problem, we will complete the description of the aspect inflections of inchoative state verbs by considering imperfect aspect. Most inchoative state verbs evidence only an event meaning when used in imperfect aspect, e.g.

(71) nĩ a-ra-rũar/aga
  he-NP-fall sick/Imp

'he was falling sick' (final state of sickness not yet achieved) OR 'he repeatedly/habitually fell sick' (not understood as: *'he was being sick')

The fact that rũara does not take the meaning 'be sick' in imperfect aspect is of course analogous to the restriction in English that stative verbs lack a progressive form (cf. *'he is knowing it'). There are, however, some inchoative state verbs of Kikuyu which do allow a stative-imperfect meaning. These verbs include rũgama 'stand', ikara thĩ 'sit', akana 'alight (of a fire or an electric light)', nyĩta 'hold', enda '(fall in) love', menya '(come to) know', haana '(come to) resemble'. (Note that many, but not all, of the corresponding English verbs allow progressive aspect, although it can be argued that these English verbs are stative.)
(72) nī a-ra-rūgama
    he-SImp-stand
    'he is standing'

(73) nī a-ra-nyita mwana
    she-SImp-hold child
    'she is holding the child'

(74) nī a-ra-mw-enda
    he-SImp-her-love
    'he loves (lit.: is loving) her'

(75) mbica icio nī i-ra-han-an/aga
    pictures those they-NP-ressemble-reciprocal/Imp
    'those pictures resembled (lit.: were ressembling) each other'

Sentence (75) is similar in meaning to the corresponding perfect sentence (76):

(76) mbica icio nī i-ra-han-an/te
    pictures those they-NP-ressemble-reciprocal/Perf
    'those pictures resembled each other'

But as my consultants explained, (75) expresses "less confidence in the situation" on the part of the speaker. In other words, what all of the imperfect sentences (72) through (75) seem to share is an implication of instability in the state described and/or an active involvement (by someone, not necessarily mentioned in the sentence) in attempts to maintain the state. Consider in this light sentence (77):

(77) nī a-a-mw-enda/aga mīaka ıtätü
    he-RP-her-love/Imp years three
    'he loved (lit.: was loving) her for three years'

My consultants suggested that (77) might be used to describe a situation in which the 'he' referred to was trying to establish a relationship with the 'her' he loved for a period of three years and then finally gave up; sentences like (77) are sometimes rendered as 'he was wanting her (for three years)'. Sentence (78) provides a similar example:

(78) nī a-rī-korwo a-kī-menya macokio
    she-NF-be found she-Imp-know answer
    'she will be knowing the answer'

This sentence may be used to describe a future situation in which 'she' is consciously aware of the answer, and tends to imply a readiness to provide the answer to someone who asks for it.
The facts concerning the use of stative imperfect forms in Kikuyu are strikingly similar to the facts concerning stative progressive forms in English, as described for example in Dowty [1974]. In both languages, stative verbs can occur in an imperfect (or progressive) form if the state is one that can be construed as unstable and requiring maintenance on the part of some principle participant. Clearly, this factor in the use of imperfect/progressive forms is a fruitful area for further comparative work on the semantic organization of the lexicon.

Are there inchoative process verbs in Kikuyu, corresponding to the inchoative state verbs which I have described? Some of the verbs which allow "stative"-imperfect forms may in fact be ambiguous between a state and a process meaning or may be basically process verbs. The best candidate that I am aware of for such an analysis is akana 'alight (of a fire or light)', which is frequently translated as 'burn' (clearly a process verb in English). Consider, for example, the following uses of the verb akana (translations given are those supplied by my consultants):

(79) \[ mwaki \ nî ù-ra-akana \]  'the cooking fire is burning'
    cooking fire    it-SImp-burn

(80) \[ nî w-a-akana \]  'it is lit/has lit' (i.e. the fire is ready for cooking)
    it-SPerf-alight

(81) \[ nî ù-ra-akan/ire \ ira \]  'it alighted yesterday'
    it-NP-alight/Comp yesterday

(82) \[ nî ù-ra-akan/ire \ mathaa matatū \]  'it burned for three hours'
    it-NP-burn/Comp hours three

It is possible that akana is lexically four-ways ambiguous among the meanings: 'alight' (inchoative state), 'be lit' (state), 'ignite' (inchoative process), and 'burn' (process). Whether or not we draw this conclusion will depend ultimately on how we view the state/process distinction.\(^\text{12}\)

\(^\text{12}\)A minor fact about Kikuyu which supports the view that inchoative state verbs are lexically ambiguous is the fact, noted in Barlow (1960:129), that a small number of such verbs can be used without any tense or aspect marking to describe a (presently existing) state. For example:
4.2. The "persistent-state" meaning of /\texttt{t}/. I think the most important reason for considering the morpheme /\texttt{t}/ to be ambiguous in Kikuyu is the simple fact that it expresses two related but nevertheless distinct ideas, neither of which can be merely reduced to the other. To see that this is so, it is especially helpful to consider again some of the transitive inchoative state verbs, as in (83) and (84):

(83) \texttt{n\textbar a-a-h} /\texttt{t}/ \texttt{m\textbar rango} a. 'he had closed the door' OR he-RP-close/\texttt{t}/ door b. 'he had the door closed'

(84) \texttt{n\textbar a-a-ny} /\texttt{t}/ \texttt{m\textbar wa} a. 'she had taken hold of the child' OR she-RP-hold/\texttt{t}/ child b. 'she was holding the child'

Gloss (a) of sentence (83) involves the idea of a prior action of closing the door; this action produces a specific result ('the door being closed'), but the idea expressed in (83a) does not strictly require that such a state continue to exist (at the time referred to). In gloss (83b), on the other hand, what is asserted is that an agent has discretion over whether the door is open or shut and that he maintains the door in a closed state (possibly through inaction rather than any active effort). The case is similar with (84): gloss (a) involves the idea of a prior event of taking hold, gloss (b) the idea of a continuing activity(/state) of holding. Given the nature of the activity, 'holding' implies a previous action of 'taking hold'. But the action and the activity(/state) nevertheless remain separate conditions in the world. If forms with /\texttt{t}/ always linked the notion of "prior event" with "continuing state", it would be reasonable to assume that both ideas are intrinsic to the basic meaning of this morpheme. However, as I have shown in 4.1, the idea of a "continuing state" is essential to the meaning of an /\texttt{t}/ form only when an inchoative state verb (with its lexical stative meaning) is involved. It therefore seems reasonable to conclude that the two ideas expressed by /\texttt{t}/ in fact reflect two distinct meanings for this marker.

\texttt{n\textbar t\textbar m\textbar we-end\textbar a} 'we love him'

Such examples show that \textit{enda} includes within its range of meaning a simple state of loving, in addition to an event of falling in love.
There are a number of grammatical considerations which support this semantic claim and which suggest that /

/\t/ has two grammatical functions corresponding to its two meanings. Specifically, the view I wish to defend is that /

/\t/ can function not only as an inflectional marker of the category "perfect aspect" but also as a derivational marker of the category "persistent state". The meaning of the category "persistent state" is that a state exists and has been in existence for some appreciable period of time. Thus, for example, there are derived stems such as -rūarīte '(continue to) be sick' and -kuīte '(continue to) be dead' which contrast with the roots -rūara 'be/fall sick' and -kua 'die/be dead' in that the derived stems can refer only to continuing states of sickness or death respectively and cannot refer to the inceptive phases of such states. On the grammatical plane, these derived stems also contrast with their roots in that they are invariable, whereas the basic roots are inflected for aspect.

The best evidence in favour of this analysis is the existence of the "defective verb" paradigm of Kikuyu. There is a small number of pure stative verbs in this language which have invariable stems and which combine only with the three past tense prefixes or "zero". All of these defective verbs end in one of the irregular allomorphs of /

/\t/ , and many of them are morphologically related to regular verbs (with full paradigms). Verbs in this class include the following:

<table>
<thead>
<tr>
<th>Defective verb</th>
<th>Morphologically related regular verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>rī 'be'</td>
<td>--- (cf. tuīka 'be/become')</td>
</tr>
<tr>
<td>ūī 'know'</td>
<td>--- (cf. menya 'know/realize')</td>
</tr>
<tr>
<td>rūngiī 'be upright'</td>
<td>rūgama (OR rūngama) 'stand (of a person)'</td>
</tr>
<tr>
<td>kīgīī 'be horizontal'</td>
<td>kīgama 'be horizontal'</td>
</tr>
<tr>
<td>ogiī 'be crooked, bent'</td>
<td>ogoma 'be bent, crooked' (cf. oga 'go awry')</td>
</tr>
</tbody>
</table>

(from Barlow [1960:171-180])

What the defective verbs share (in contrast to the corresponding non-defective stems) is the notion of an established or continuing state. These verbs cannot be used to refer to the inceptive phase of a state. It seems reasonable to conclude from these facts (a) that the semantic component "continuing
state" is contributed by -iT (an irregular/archaic form of the morpheme /iT) and (b) that -iT is derivational rather than inflectional, since many of the stems with which it combines do not occur independently of -iT or some other verbal extension.

As additional support for this analysis of the morpheme /iT(-iT), it is interesting to note that some non-defective verbs have retained (in at least some dialects) an irregular/archaic perfect form, along with a regularized form, and the archaic form tends to be associated exclusively with the "persistent state" meaning of /iT. For example, noga 'be/become tired' has both (regular) nogete 'have been/become tired', and (irregular) nogiT '(continue to) be tired'. The association of distinct meanings with distinct allomorphs is, of course, a natural historical development once a morpheme has become lexically ambiguous. (It must be admitted, however, that this historical development has not been carried out systematically in Kikuyu. My consultants all used nogete for both meanings and functions.)

Another significant consideration is the existence of a class of non-stative verbs, including gucia 'pull' and kuua 'carry away', whose /iT forms are ambiguous in exactly the way that is predicted by the two-function analysis of /iT. Consider the following examples:

(85) nT a-ra-guc/Ttie mükanda  
    he-NP-pull/Perf rope  
    a. 'he had pulled the rope'  
    b. 'he was pulling the rope'
(86) nT a-ra-ku/Tte mûrigo  
    he-NP-carry away/Perf load  
    a. 'he had carried away the load'  
    b. 'he was carrying away the load'  
    (rendered by one consultant as  
    'he was in a state of carrying away the load')

The proposed analysis of /iT provides a good explanation of the above ambiguities because of the similarity between a state such as 'being tired' and a homogeneous activity such as 'pulling a rope'. It is therefore natural to extend the meaning of /iT as a derivational marker, from "persist in the state of..." to the more general meaning, "persist in the homogeneous condition of...". In these examples, analyzing /iT as bi-functional seems a much more plausible approach than attempting to relate the two meanings for each example in terms of conversational implicature.
It is helpful to note the difference in meaning between examples such as (86b) and (87):

(87) nī a-ra-ku/aga mūrigo 'he was carrying away the load'
    he-NP-carry away/Imp load

Despite the identical English glosses, these two examples have different meanings. Sentence (87) can be used, for example, to talk about the initial (developing) phases of the episode, when the referent is perhaps struggling to get a secure grip on his load or to overcome the initial inertia of a heavy load. However, (86b) can only be used to describe a situation in which the action is well underway and the referent is simply following through on the latter stages of his activity.

Another set of examples which are more easily explained on the assumption that /Tt has two meanings and two grammatical functions are sentences such as (88) and (89):

(88) nī a-a-hanyuk/Tte ithaa rīmwe 'he had run for an hour'
    he-RP-run/Perf hour one

(89) nī a-a-rūar/Tte kiumia kīmwe a. 'he had been sick for a week'
    he-RP-be sick/Perf week one b. 'he was sick for a week'

In example (88), there is only one natural understanding of the sentence, which corresponds to the reading that gives wide scope to the perfect marker vis-à-vis the durational adverb; (88) means 'it had been the case that he ran for an hour' but not 'for an hour it had been the case that (prior to that hour) he had run'. The latter reading is clearly inadmissible for pragmatic reasons: it is odd to assert that a fact ('his having run') remains true for some specified length of time, since it is in the nature of facts not to vary over time. Consider now example (89), with its two different glosses. The first corresponds to the expected case in which /Tt expresses perfect aspect and has wide scope over the durational adverb (as in (88)). Gloss (b) involves the "persistent state" meaning, and in this case /Tt has narrow scope. The simplest explanation for the fact that the durational adverb can have narrow scope in this example is the assumption that /Tt expresses the category "persistent state" rather than "perfect"
aspect", since in all other cases, a durational adverb cannot have wide scope over a perfect marker.

A final point of major importance for the analysis of /IT/ involves the auxiliary construction with the verb korwo 'be found'. This auxiliary verb can itself occur in almost all tense and aspect forms, and is followed by a main verb marked with the prefix kT- (for imperfect aspect), a- (for short-perfect), or /IT/ (for long-perfect aspect).

(90) a. nī a-ga-korwo a-kT-hanyūka 'he will be running'
   he-RF-be found he-Imp-run
b. nī a-ga-korwo a-a-hanyūka 'he will have just run'
   he-RF-be found he-SPerf-run
c. nī a-ga-korwo a-hanyūk/ITte 'he will have run (some time previously)'
   he-RF-be found he-run/LPerf

korwo can also be followed by a defective verb, e.g.

(91) nī a-ga-korwo a-rī nyūmba 'he will be at the house'
   he-RF-be found he-be (at the) house

There are some combinations of an inflected form of korwo followed by a certain form of main verb which are not acceptable. One of these is illustrated below in (92), where both korwo and its main verb have the marker /IT/:

(92) *nī a-kor/etwo a-hanyūk/ITte (no translation attempted)
   he-be found/Perf he-run/LPerf

This construction becomes acceptable (and meaningful) if the main verb is changed from long-perfect aspect to imperfect aspect, as shown in (93):

(93) nī a-kor/etwo a-kT-hanyūka (kahinda kanene)
   he-be found/Perf he-Imp-run time large
   'he has been running (for a long time)'
   (my consultants felt that the adverbial kahinda kanene was necessary to complete the sense of (93))

What renders (93) acceptable is that akT-hanyūka describes a concrete situation, hence it is reasonable to assert that this situation endures for a long time. In (92), however, the idea expressed is that the fact of 'his having run' remains true for a long time, and (as indicated in earlier dis-
discussion) this makes no sense as a conversational message.

Consider now the following examples, where the main verb is an inchoative state verb:

(94) nI a-kor/etwo a-hina/Tte mørango (kahinda kanene)
    he-be found/Perf he-close/LPerf door time large

'he has had the door closed (for a long time)'

(95) nI a-kor/etwo a-růar/Te (kahinda kanene)
    he-be found/Perf he-be sick/LPerf time large

'he has been sick (for a long time)'

The "persistent-state" meaning of these main verb forms renders the construction meaningful, because the main verb now describes a concrete situation. Moreover, only the "persistent-state" meaning is possible, and this meaning is more than the mere implication of a concrete state resulting from a completed action. Event verbs which are not inchoative state verbs fail to render the construction acceptable, as demonstrated by (96):

(96) *nI a-kor/etwo a-tony/ete nyûmba (kahinda kanene)
    he-be found/Perf he-enter/LPerf house time large

My consultants suggested (97) as the acceptable way to express the meaning which they inferred that I wanted to express via (96):

(97) nI a-kor/etwo a-rI nyûmba (kahinda kanene)
    he-be found/Perf he-be (at the) house time large

'he has been in the house (for a long time)'

This data on the auxiliary construction with korwo thus provides rather strong evidence that "perfect aspect" and "persistent state" are independent categories. In the construction illustrated by (94) and (95), /iT/ is restricted to its role as a derivational suffix, with the meaning "persistent state".

5. Conclusion

My approach to the Kikuyu verb system has, on the one hand, placed emphasis on the fundamental similarity in the major category distinctions between Kikuyu and other languages and, on the other hand, has attempted to ex-
plain some of the more unusual features of the system in terms of non-standard category distinctions such as "manifest action/imminent action".

The aspect system is built upon a basic three-way contrast among "perfect", "imperfect", and "completive" aspect; my choice of terminology here reflects my conviction that these categories are essentially the same as their counterparts in (for example) the Indo-European languages. Kikuyu adds to this basic set of contrasts a distinction between "short-perfect/long-perfect" and between "short-imperfect/long-imperfect". In the basic verb paradigm,¹³ these secondary aspectual distinctions are found only in the present tense; and as I have argued here and in Johnson [to appear], they arise from the need to distinguish episodes that are "manifest with respect to the moment of speaking" from those that are as yet "imminent (≠ not fully manifest) at the moment of speaking".

The tense system is built upon the usual distinctions among "present", "past", and "future", as determined by the actual moment of speaking. The system is unusual, however, in that the "current time unit" (today, this month, etc.) also plays a pivotal role in determining the overall pattern of tense distinctions, since each of the many tense categories involves a time unit defined in relation to the "current time unit". Diagram 1 summarizes the six time units that are used in the tense system.

The fact that the temporal reference system of Kikuyu has all of the principal semantic distinctions characteristic of such systems, plus a number of relatively "exotic" elaborations on the central themes, thus makes it a rich field for investigation into the nature of verb aspect and tense. As our knowledge and understanding of this (and other Bantu) systems continues to grow, I think there can be little doubt that the Bantu languages will have a very significant impact on the scientific understanding of the nature of time reference in all human languages.

¹³The auxiliary construction with korwo generalizes the "short-perfect/long-perfect" contrast to tenses other than the present.
Diagram 1: Temporal units in the Kikuyu verb system
REFERENCES


