The applied suffix in Swahili poses an analytical problem because it expresses such a wide variety of semantic relationships. Most treatments provide either an extremely vague description of its meaning or else concentrate on a single use thus implicitly postulating many homonymous forms. We shall use distributional and semantic evidence to demonstrate that there is a single productive verb suffix which can be distinguished from frozen lexical stems that look the same or similar. We shall argue that all of the productive uses of IE can be accounted for with a single abstract meaning from which distinct messages are inferred in particular contexts. The semantic effect of the suffix is to "add a role to the lexical verb that is less active than the agent."

0. Introduction

The applied suffix on Swahili verbs has long posed an analytical problem. For example, in her classic grammar Ashton [1947] made no attempt to provide a unitary description. She called the form simply "prepositional" since it could mean to do an action for something, with something, to something, about something, etc. Polomé [1967] says that the basic meaning of this suffix has to do with "directing the action against something". Both authors, like other published descriptions [Sacleux 1909], fail to distinguish the truly productive patterns of distribution and meaning of the applied suffix from the many lexical relics that resemble the applied suffix but are related to it only historically.

The goal of this paper is to show that there is, in fact, a freely productive applied suffix which has a unitary meaning and that it may be distinguished from the many derivationally related homonyms both with respect to its distribution and meaning.

*This paper is an expanded version of a paper delivered at the 10th Conference on African Linguistics, Urbana, Illinois in April, 1979.
1. Morphology

The base form of the applied suffix in modern Swahili is IE, where E represents the harmonizing vowel found also in several other Swahili suffixes.\(^1\) As can be seen in the table below, the vowel is /i/ after stems whose final vowel is /i,a,u/ and /e/ after stems ending in the mid vowels /e/ or /o/. (All verbs end in a final /a/, an indicative marker). The consonant /l/ in the applied form only appears after vowel-final verb stems and is deleted after consonant-final stems.\(^2\)

<table>
<thead>
<tr>
<th>Stem</th>
<th>Base Form</th>
<th>Applied Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>pig-a</td>
<td>'strike'</td>
<td>pig-i-a</td>
</tr>
<tr>
<td>end-a</td>
<td>'go'</td>
<td>end-e-a</td>
</tr>
<tr>
<td>omb-a</td>
<td>'pray'</td>
<td>omb-e-a</td>
</tr>
<tr>
<td>chuku-a</td>
<td>'take'</td>
<td>chuku-li-a</td>
</tr>
<tr>
<td>kat-a</td>
<td>'cut'</td>
<td>kat-i-a</td>
</tr>
</tbody>
</table>

2. The Beneficiary/Indirect Object Use

The structure of a simple Swahili sentence is illustrated below.

(2) a-li-kat-a nyama 'he cut meat'
S(he)-Past-cut-Indic meat

The subject prefix, marked S in the literal gloss, is a pronoun. Then comes the tense marker followed by the verb stem. Since all our verb examples end in the indicative morpheme -a, we shall no longer separate it with a dash. In sentence (3) an additional prefix is added:

(3) a-li-i-kata nyama 'he cut the meat'
S(he)-Past-O(meat)-cut meat

The object prefix -i-, which is also a pronoun agreeing here with the object meat, is inserted just before the verb stem. It is used only when the object

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\(^1\)The suffix in question is represented throughout as IE for reasons of graphical distinctness even though a phonologist might prefer to write a vowel harmony rule based on underlying /1/.

\(^2\)Stems that contain no vowel may add either i (as in fa - fia 'die') or e (as in nya - nyea 'rain'). There is also a large class of borrowed verbs, e.g. husu - husia 'relate to', that follow quite different rules. See Port and Shepardson [forthcoming] for a complete discussion of the variants of Swahili verb suffixes.
The Applied Suffix in Swahili is definitely identified. Thus it appears for most animate objects and some inanimates.

The most common use of the applied suffix, and the one that has had the most complete description, is illustrated in (4).

(4) a-li-ni-kat-ia nyama 'he cut meat for me'
S(he)-Past-O(me)-cut-IE meat

The subject and object pronouns are 'he' and 'me' respectively, and the verb is suffixed with IE. Since the meaning of the sentence is 'he cut meat for me', apparently IE adds the role of a beneficiary or indirect object which, in this case, is played by the first person singular pronoun in the object prefix. Notice in example (5) that the beneficiary participant can be shifted to the subject position by use of the passive suffix w.

(5) ni-li-kat-i-wa nyama (na-ye) 'I had meat cut for me (by him)'
S(I)-Past-cut-IE-Pass meat (by-him)

In this case the agent noun or pronoun can either be left out entirely or added after the marker na, equivalent here to English by. Thus (5) is something like 'I was cut-for meat'.

Sentences (4) and (5) represent the most basic use of the applied form when it occurs in a main verb: the indirect object added by the IE suffix is animate and represented as a pronoun in the object prefix; alternatively it appears in the subject prefix with a passive marker.

Thus far, the applied form does not pose a serious analytical problem. Semantically the suffix resembles the Latin dative in adding an indirect object to the event, but, unlike the dative, it does not indicate which noun plays the role—only that the role is played. Yet the applied form can be used for a wide variety of other messages as well: instrument, purpose, place-to-which, etc. This uncertainty about the meaning of IE has resulted in confusion about when the applied suffix is really present. That is, most analyses are unclear about when we are actually looking at an example of the applied form as part of the synchronic grammar and when we are looking at a frozen relic of a similar ancestral form that may have been productive in the proto-language.
2.1 **Lexical relics.** That such frozen relics exist is shown by examples like those in (6) where we see forms that look like an applied form and whose meaning seems generally coherent with the meanings characteristic of the applied but for which the necessary base forms without IE do not exist.

(6) 
*ingga* ingia 'enter'

*kimba* kimbia 'run'

*poka* pokea 'accept'

*sika* sikia 'hear'

Thus, for example, there is *kimbia* 'to run' or 'to run from' but no *
imba* in the language. Further evidence that these words with apparent IE suffixes are simply lexical stems is found in (7) where we find that a regular applied suffix for the indirect object can also be added to these "pseudoapplied" stems when an indirect object is needed.

(7) ni-ta-ku-poke-lea zawadl 'I will accept the gift for you'

S(I)-Fut-O(you)-accept-IE gift

This is what we would expect if they are independent lexical stems.

Many descriptions of the applied form in Swahili discuss cases of apparent reduplication of the suffix, as in the examples in (8), with the suggestion that they are somehow emphatic versions of the simple suffix [Polome 1967:85].

(8) 
shinda 'surpass'

enda 'go'

penda 'like'

oga 'bathe'

shindilia 'pack down'

endelea 'progress'

pendelea 'favor'

ogelea 'swim'

I propose that they actually represent a frozen lexical suffix. There may be some vague common meaning to examples of the double-IE or double-applied, and there is undoubtedly a historical connection between these examples and the IE under discussion. But it should be noted first that these examples cannot be interpreted as having an indirect object and second that this double suffix is not generally productive and has only a handful of examples—maybe only 10 or 15. Thirdly, these verbs, too, can add still another IE that acts like the normally productive one, as shown in (9).
(9) ni-li-m-shindili-ilia majani 'I packed down the leaves for him'
S(I)-past-O(him)-pack-IE leaves

Here shindili-ia 'to press down' (historically related to shinda) appears in its own applied form shindili-ilia, 'to press down for someone'. This is evidence that shindili- is a lexical stem. If it contained a productive IE then we could not add another (see (24) below).

There is a third kind of lexical relic of the IE suffix illustrated in (10):

(10) nuka 'smell bad' nukia 'smell good'
hama 'move from' hamia 'move to'
angaa 'be bright' angalia 'look at'

There seem to be a few such lexical pairs that may appear to be differentiated by presence of the applied suffix, but which cannot plausibly be so analyzed. These very few exceptional examples, however, throw sand in the eyes of the investigator. Thus, for example, the relation between nuka 'smell bad' and nukia 'smell good' is a completely idiosyncratic semantic contrast not duplicated anywhere else in the language.

The existence of a number of words in the language that look like they contain an applied suffix but do not has made it more difficult to identify just the productive patterns. In fact the beneficiary or indirect object use that we presented earlier is not the only productive use of this suffix.

2.2. Instrument. The second important use is to add the role of an instrument. But the instrument use raises a special problem. Although beneficiaries and instruments are both roles added by the applied suffix, they do not behave the same syntactically and further, informants disagree with each other on what is acceptable. In particular, it is very difficult to make the object prefix agree with the instrument noun, whereas the indirect object, as we saw in example (4) normally occurs there (cf. similar effects in closely related Chi-Mwini discussed in Kisseberth and Abasheikh [1975]).

For example the simplest way to add an instrument (shown in (11)) is simply to leave the verb unmodified and add a prepositional phrase with kwa.
The problems begin in (12) where we also insert the applied suffix on the verb.

(12) ?a-li-kat-ia nyama (kwa) kisu 'he cut meat with a knife'
    S(he)-Past-cut-IE meat (with) knife

My informants agree that katia rather than kata is all right here but differ as to whether the "redundant" preposition kwa should also be there. Some say the sentence is not very clear without kwa, while others dislike the redundancy of the preposition. (Incidentally, the order of nouns and prepositional phrases in this sentence, as elsewhere, has virtually no effect on acceptability.)

Similar vacillation and disagreements between informants was found for sentences like (13) where the instrument is put in the object prefix.

(13) ?a-li-ki-kat-ia kisu hiki nyama
    S(he)-Past-O(knife)-cut-IE knife this meat
    'he used this knife to cut meat'

This "ought" to be comparable to placing the indirect object in the object prefix. Some speakers say it sounds fine and quite appropriate while others report that it is impossible not to interpret (13) as somehow meaning 'he cut meat for the knife'. Furthermore, several other syntactic arrangements yield variable responses from native or highly experienced speakers of the language. One might be tempted to conclude from this that the applied suffix cannot have a productive instrumental meaning and that these examples are awkward for this reason. But the difficulties with examples (12) and (13) seem to be due primarily to using an instrumental message for IE in a main verb. For some reason, the instrumental use of IE occurs most frequently and most unambiguously in verbal infinitives used as relative clauses, such as those in (14).

3It is significant that speakers of northern (Kenyan) dialects of Swahili (Mombasa and Lamu) are much happier with sentences like (11) than are speakers from Tanzania and Zanzibar or speakers of the "Standard" dialect taught in schools. There is no reason for positing different analyses for the two dialects. They differ only in the extent to which they exploit the range of messages transmittable with this form.
Here we find 'a knife for cutting with' represented as knife plus the subordinating associative particle -a followed by the applied form of the verb infinitive. The other examples follow the same pattern. This very common construction shows that the instrumental message is not at all "forced" for the applied form. It is rather that, for reasons not yet understood, the instrumental use is not easily exploited in a main clause verb. It is my position, however, that this complexity does not stand in the way of an analysis of the semantic contribution of all the productive uses of the applied suffix. These syntactic asymmetries between beneficiaries and instruments should not obscure the unity of meaning of the applied form.

3. Analysis

It is my analysis that the function of the applied form of the verb in Swahili is to modify the lexical description of the occurrence by adding an additional role to those implied by the basic lexical verb. This role is always a weaker contributor to the lexically described activity than the agent role implied in the lexical meaning. There are basically four classes of messages that can be transmitted with this suffix. First, the additional role may provide a motive for the agent to perform the action, as in the case of an indirect object or beneficiary. Second, it may assist performance of the action by serving, for example, as an instrument. Third, the role may describe a participant who is involved as a respondent to the lexically described action. Lastly, the role added may not even involve activity of any sort in the

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4 The indirect object message can also be employed in such phrases but only for a noun other than the head. Thus, for example, pesa za ku-let-ia Hamisi, money of Inf-bring-IE Hamisi, 'money to take to Hamisi'.

5 The meaning of IE, then, probably contrasts with the productive causative suffix IEsh which adds a role to the event that is a stronger contributor than the agent (see Port [1972]).
event, but simply be the location (in space or time) where the event occurs.

3.1. Motive. The contribution of the animate beneficiary as in sentence (4) as a motivation for the agent is fairly obvious. In sentence (15) we now have an inanimate book providing the motive for the agent: 'he comes for book'.

(15) a-me-ki-j-ia kitabu hiki 'he has come for this book'
    S(he)-Compl-0(book)-come-IE book this

In (16) the message of goal is quite clear.

(16) a-me-end-ea Nairobi 'he has gone to/toward Nairobi'
    S(he)-Compl-go-IE Nairobi

The sentence strongly implies that he is still on the way and could not be used to mean, for example, 'he has moved to Nairobi'. That is, Nairobi remains a goal for the action of going, and thus a motive for the agent.

3.2. Assistance. The second kind of contribution to the event is the role of something that assists or facilitates the occurrence. In (17) are several examples of verbs with instruments commonly associated with them.

(17) katia kisu 'cut with a knife'
    pikia jiko-ni 'cook on a stove'
    andikia kalamu 'write with a pen'

Sentence (18), taken from a short story, is an unusual example. The sentence is 'he gets the money-IE without trouble'. The IE here adds an instrumental role as if it were 'he gets money by means of no trouble'.

(18) a-na-zi-pat-ia pesa bila taabu
    S(he)-Pres-0(money)-get-IE money without trouble

    'he can get money without difficulty

The minimal pair of sentences in (19a) and (19b) illustrates the subtle borderline between a place that provides assistance to precipitation of the occurrence and a place that is simply the location of the event.

(19) a. a-li-kufa bahari-ni 'he died at sea'
    S(he)-Past-die sea-Loc

    b. a-li-f-ia bahari-ni 'he perished at sea'
    S(he)-Past-die-IE sea-Loc
In (19a) we find 'my father died sea-place' and in (19b) we find 'my father died IE sea-place'. The second sentence is best translated into English as 'he perished at sea'. But notice that one only perishes in dangerous places—at sea, in wars or in plagues—not, for example, in a bed. That is, the contribution of IE here is to imply that the sea bears some responsibility for the death of the father.  

3.3. **Respondent.** The third class of participant roles signified by the applied form is that of a **respondent**, that is, a party that responds to the lexically defined action and is influenced significantly by it. For example, in (20) 'he has been died-to by his father' might also be coarsely glossed as 'he is responding to his father's death'.  

(20) a-me-f-i-wa na babake
S(he)-Compl-die-IE-Pass by his-father
Lit: 'he has been died-to by his father'
'he's in grief over his father's death'

The applied suffix claims there is an additional participant in the dying. It is inferred to be the grieving relative. Of course, the sentence could also be interpreted in the appropriate context as 'his father died for him' where the son is now a beneficiary. The morphology will not distinguish these two, only the context in which the utterance occurs. The IE suffix is coherent with both interpretations. Sentence (21) is interesting because 'stealing' can have two very different kinds of additional roles besides the necessarily implied role of the stealer and the stolen.

(21) a-li-wa-ib-ia watoto chakula
S(he)-past-O(children)-steal-IE children food
'he stole the children's food' or 'he stole food for the children'

IE can be used to add either the aggrieved party that is robbed (a respondent) or a beneficiary that one might steal for. Again only context will de-
termine the interpretation of the role in such a sentence. The ambiguity is not in the meaning of IE, but rather in the lexical meaning of 'steal'. It is a kind of event that invites several roles beyond those of the thief and the loot.

3.4. Location. The final class of messages for the applied suffix are cases where the additional role is not in any sense a contributor to the activity in the event. It is simply the place or time when it occurred. Of course, places would not normally be thought of as playing a role in an event. But a place can be said to play a role if it is particularly prominent in the message. For example the sentence in (22) is taken from a story about man-eating lions.

(22) simba wa-1i-m-1-ia karibu na kambi
lions S(they)-Past-O(him)-eat-IE nearby to camp
'the lions ate him near the camp'

Under normal circumstances the applied form of la 'eat' would not be used just to introduce the place of eating. This is a special case, however, because people were listening to the lions crunch the bones of a comrade. Although (22) might still be interpreted instrumentally (since they use the place for eating), the next example shows clearly that the place need not contribute to the event either as a means or goal in order to be marked with IE.

(23) babake a-li-f-ia mikono-ni mwake
his-father S(he)-Past-die-IE arms-Loc his
'his father died in his arms'

The place of dying is, of course, highly significant to the message, but the son's arms are neither a goal nor a "reason why". Thus they do not contribute to the dying at all. Instead, this role-adding suffix seems to be employed here on an intransitive verb (where misinterpretation is less likely) primarily for comment on the relevance of the location to the events occurring there.

either a locative case or a participant case for each noun. In Swahili, the verb suffix only adds a role to the event without indicating which noun plays that role.
A survey of texts reveals that all of the productive instances of the applied form seem to be sortable (but not always uniquely) into one of these four classes of messages: a motivation for the agent, an instrument of the agent, a respondent to the action, or a prominent place of the action. One reason for going a step further and postulating a single underlying abstract meaning for these four "uses" is the distributional fact that productively a given verb can only take a single applied suffix. Thus, sentences like (24) are universally rejected.

(24) *a-li-m-kat-i-lia Juma nyama (kwa) kisu
S(he)-Past-O(him)-cut-IE-IE Juma meat (with) knife
'he cut Juma meat with a knife'

Here, I tried to combine two IE suffixes, one for the indirect object and one for the instrument. If these two were grammatically distinct but homophonous suffixes, we might expect that they could be combined just like the applied suffix and the causative suffix -lisha combine to form -lishia as in (25).

(25) Juma a-li-m-pik-ish-ia Hassan chakula kwa jiko lile
S(Juma)-past-O(Hassan)-cook-causative-IE Hassan food with stove that
'Juma had Hassan cook food on that stove'\(^7\)

The impossibility of (24) in the face of (25) further suggests that both the instrumental and beneficiary messages are interpretations of a single IE form. The only cases in which multiple suffixes resembling IE can occur (in (6) to (10) above) are those where one or both are actually lexical relics, an analysis further supported by the generally idiosyncratic meanings of the relic suffixes.

Yet if there is only a single abstract meaning for the productive uses of this suffix, how do listeners know whether the message should be one of, say, a goal, instrument, or beneficiary? The answer has to be that the lexical meanings of the nouns and verbs in the sentence as well as the context of

\(^7\)This sentence sounds much better to northern coastal speakers, of course, than to Tanzanians. See footnote 3.
communication lead listeners to jump to a coherent (and normally correct) interpretation (see García [1975]). In general, there is only one possible interpretation, but whenever the additional role could be interpreted in two different ways (due, perhaps, to minimal context), then the sentence will be "ambiguous" just as several of our examples have been.

5. Conclusions

It has been proposed that there are both distributional and semantic reasons for postulating a single productive applied suffix in Swahili. It is possible to distinguish the grammatical form from the many competing homophones with respect to both the meaning and the possibility of adding the IE suffix. Our analysis stems from the assumption that much of the character of languages is determined by the fact that they are communication devices for which invariant signal-meaning correspondences would be highly functional. Although a number of lexicalized and derivational exceptions muddy the waters, a search for productive and invariant correspondence permitted isolation of the exceptions on principled grounds.

REFERENCES


This section is for short remarks on articles dealing with African languages which have appeared in *Studies in African Linguistics* or elsewhere and for contributions which are too short to constitute full articles. These may be short descriptive or historical statements of interesting phenomena in African languages or theoretical comments utilizing African language data.

Contributions to "Notes and Queries" should be less than 1000 words, including examples. No footnotes should be used, but references may be listed at the end.