1. Introduction

In any study of those Swahili sentences whose surface structure is a realization of \([V(NP_a, NP_b ...)]\), it is soon apparent that observed patterns are co-variant with the particular items occurring both at \(V\) and \(NP\).

For example, the choice of a particular \(V\), whether as a simple or as an extended form,\(^2\) involves constraints not only on the choice of concomitant nominals, but also on acceptable combinations. Thus:

(1a) \(\text{mtoto alivuna} \ \text{dirisha lile} \ '\text{Child broke window that}'\)

(2a) \(\text{mtoto alikufa} \ '\text{Child died}'\)

(3a) \(\text{mtoto alifika nyumbani} \ '\text{Child arrived at-house}'\)

where \(-vunj-\) will accept an entailment\(^3\) but \(-f-\) will not. Thus:

(1b) \(\text{dirisha lile lilivunjwa na mtoto} \ '\text{Window that was-broken by child}'\)

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\(^1\)I owe a particular debt of gratitude to my chief informant at the time of writing, Sh. Y. Omar of Mombasa, as well as to those others who have enlightened me in the past, especially Miss Salma Mbaye of Zanzibar, and Mr. John Mganga of Korogwe, Tanzania.

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\(^2\)I define a simple form of the verb as one which cannot be further contracted [see Whiteley 1968:56]. Such forms will be abbreviated in this paper as \(V_s\), and extended forms as \(V_e\).

Particular extended forms will be abbreviated thus: \(V_\text{O}\) (oblique extension), \(V_\text{C}\) (causative extension).

\(^3\)The term 'entailment' is used to designate the potentiality for transposition of certain lexical items which stand in a surfact subject and object relationship [Whiteley 1968:10; 1969:108]. Sentences which stand in an entailment relationship to one another may be inferred from one another, but the precise semantic relationship between them is neither constant nor, in all cases, straight-forward.
Equally the V of (1a) may differ from that of (1x) by extension:

(1x) *mtoto alivunjika mguu* 'Child was-broken leg'

which will accept (1y) as an entailment:

(1y) *mguu wake mtoto ulivunjika* 'leg his child was-broken'

Any theory that is proposed for Swahili, therefore, must not only generate realizations such as (1a), but must also account for those like (2a) and (3a), together with their potentialities for entailment. As a starting point for this study I adopt the view of "...how much more instructive it can be to study small problems under powerful magnification than to try to take in great heaps of phenomena in sweeping surveys" [Weinreich 1969: 26]. It is evident that in a language like English such problems can be viewed against a solid background of documentation such as is lacking for Swahili, where there is a growing tendency to use surface data only in so far as they demonstrate that this or that theoretical point is well motivated. This can only lead to premature generalizations. By an intensive examination of surface data for one sentence type from this Bantu language, I hope not only to expose the variety of features which must be accounted for in any theoretical formulation, but to demonstrate the usefulness of certain heuristic devices in ordering this data.

An initial question is whether these surface realizations of intra-sentential relationships are correlatable with discoverable semantic properties of verbs which can be listed in the lexical component of the grammar. If this were to prove possible one would like to see if the correlation can be extended to intra-sentential relationships associated with extended forms of these verbs, which would be preferable to regarding the extensions as new base-stems, each with its own distinctive semantic/syntactic features. Even if this were to be possible, there still remains the question of the relationship between what might be termed a 'deep' structure of Swahili and any universal deep structure which might be set up. This is an area which has become fashionable in recent years, and an approach which has attracted considerable attention is that of Fillmore. In his now celebrated "The Case for Case" he asserts: "The case notions
comprise a set of universal, probably innate, concepts which identify certain types of judgments human beings are capable of making about the events that are going on around them, judgments about such matters as who did it, who it happened to, and what got changed" [Fillmore 1968:24]. An approach to intra-sentential relationships in terms of case seems to offer an attractive means of categorizing verbs, yet it is not without its difficulties for those working on languages other than their own first language. For example, the assignment of particular case labels seems to depend on the intuition of the individual speaker/hearer and leaves large areas for equivocal allocation.\(^4\) Again it is not always easy to be sure at what level these case notions are held to apply: they have a universal quality but they are yet immediately applicable to the surface phenomena cited. On the other hand, with some modifications a case-type approach does seem to be feasible within the general framework of a re-statement grammar which seeks to classify intra-sentential relationships as functions of the semantic properties of verbs.

2. **Complexes of simple verbs**

To return to examples (1a) and (1b), it must be noted that these two sentences are members of a set which also includes the following focused constructions:

(1c) alivunja dirisha m\(\ddot{t}\)oto yule 'This child broke the window'
(1d) dirisha alivunja m\(\ddot{t}\)oto yule 'This child broke the window'
(1e) ndiye m\(\ddot{t}\)oto yule aliyevunja dirisha 'It's this child who broke the window'
(1f) ndilo dirisha allovunja m\(\ddot{t}\)oto yule 'It's the window that this child broke'

All of these may be said to constitute a linear re-ordering of (1a), while (1b) constitutes rather a restructuring of (1a). All, however, may be located along a scale of focus,\(^5\) in which either NP\(_1\) or NP\(_2\) is given

\(^4\)Some of the weaknesses in the case approach have been discussed by Huddleston [1970:501–511] and Dougherty [1970:506–531].

\(^5\)The term focus is used for those formal devices e.g. intonation, sequence, etc., which strengthen the choices actually made of a particular item, in contrast to others not made. There is, thus, in my view a real
prominence, indicated by underlining. NP₁ of (1a) is accorded minimal prominence in (1b), but maximal prominence in (1f). The set as a whole is termed a focus-set. Fillmore would, I believe, allocate to such verbs as -vunj- the case frame (_A,0), which provides for an animate A(gentive) and an inanimate O(bjective). There is, however, something to be gained by conflating the two relationships (NP₁ + V) and (V + NP₂) into a single case-complex, in which it is the total relationship that is being emphasized rather than the individual case relationship. The complex subsumes two capacities; that for structural re-statement and that for linear re-ordering, both of these being expounded semantically by variations in focus. The capacity for re-statement obviates the need for making arbitrary decisions about particular case relationships, though the central role of the verb is still underlined. Thus relationships of the kind exemplified by (1a)-(1f) may be given the label D(irective) and would be entered in the lexical component of the grammar under the appropriate verb, along with such information relating to NP₁ and NP₂ as can be codified. Thus both the following are labelled D-complexes:

(4) mtofo ali)vunj'a dirisha 'Child broke window'

(5) jiwé lili)vunj'a dirisha 'Stone broke window'

since both accept comparable re-statements. The fact that instrumental phrases may freely occur if NP₁ is animate but not otherwise is attributable to the fact that -vunj- implies deliberate rather than accidental breaking, and even where an inanimate NP₁ occurs with an instrumental phrase there is still a feeling that some purposive action took place:

(6) gari lili)vunj'a mti wa simu kwa bampa

'A car broke the lamp-standard with its fender'

difference in meaning between, for example (1a) and (1b), but this is of a different order from that between, say, (1a) and another sentence mzeč ali)vunj'a dirisha lile 'The elder broke that window' (Cf. Halliday [1968:204ff] and, more forcefully, Chafe [1971:11]). Focus may be paradigmatic, in which an item is typically contrasted with other material outside the unit under consideration. This contrast may be retrospective, i.e. referring to material already presented, or prospective, i.e. referring to material not yet presented.
Verbs which participate in D-complexes will be labelled D-verbs.

A verb such as -f-, of example (2), however, belongs to a shorter focus-set, there being no restructuring comparable to that of (1b), in fact no NP₂ occurs, thus:

(2a) mtoto alikuwa 'Child died'

(2c) alikuwa mtoto wake 'His child died'

(2e) ndiye mtoto wake aliyekufa 'It's his child who died'

Such complexes may be labelled S(tative).

Finally, there is a large group of verbs which accept a locative as NP₂. Thus:

(3a) mtoto alifika nyumbani 'Child arrived at-house'

(3b) nyumbani kulifika mtoto 'To-the-house came some child'

*nyumbani kulifika Juma 'To-the-house came Juma'

Such complexes are labelled L-complexes and verbs participating in them L-verbs. All Swahili verbs so far encountered can have allocated to them one of these complex labels, but this represents a gross simplification of the actual situation for two reasons.

Firstly, the complex itself is an abstraction, at a level intermediate between observed data and that of the 'universal' deep structure, whether this is formalized by \[ V(NP₁, NP₂...) \] or by the Fillmorean (\( M + P \)) format. Thus the observed data may be said to realize the complexes subject to certain conditions:

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6Sentences of a similar type are discussed in greater detail in Roberts [1971:62].
(i) The actual occurrence of \(NP_1\) may be correlated, among other factors with whether the utterance occurs in discourse-initial or discourse-medial position;

(ii) Structural re-statements may be more acceptable for some verbs -- and for some speakers -- than for others;

(iii) While an object-prefix (op) is a potentiality for any D-complex, the rules for its realization have not been formulated;

(iv) The status of \(NP_2\), both within a complex and across complexes, varies widely, being obligatory in some cases but not in others.\(^7\)

Thus in the example:

(6a) mgeni wetu ame\(\)kuja 'Guest our has come'

It is not clear to a reader who is not also a student of Swahili whether one is dealing with an S-complex in which \(NP_2\) cannot occur, or an L-complex in which \(NP_2\) is not realized. This can only be resolved intuitively, empirically, or by reference to the lexicon. It is an important point, however, since there is evidence of what might be termed a 'scale of obligatoriness' in respect of the co-occurrence of particular items or small series of items it may be most convenient to recognize 'phraseological units' (see Weinreich [1969:42]). But apart from such cases, there is still a wide range of variation. Towards one end of the scale are two types of verb: firstly, those which themselves adequately instantiate the activity they designate e.g., -l\(i\)m- 'cultivate', -chung- 'herd', -za- 'give birth', -chez- 'play', -nyw- 'drink' (negative only); and secondly, those which, when no \(NP_2\) occurs, instantiate some special variety of the activity they designate, e.g. -l- 'eat', -shon- 'sew', -on- 'see' (possessing the faculty of sight), -siki- 'hear' (possessing the faculty of hearing). The \(NP_2\) in most of these cases could be said to be immanent. Thus:

\(^7\)This is a point which has received scant attention in the Bantu field, but it is briefly referred to in Harries [1970:15-18].
(7) anafanya nini? anakula tu
'What is he doing? He's eating' (meal (ugali, wali) as opposed to relish (kitoweo))

(8) anashona,
'He's sewing' (clothes as opposed to shoes or hats, etc.)

Thus in addition to noting the complex-affiliation of a particular verb, it will be necessary to stipulate some co-occurrence restrictions in the lexical component. Towards the other end of the scale are those verbs which require complementing, typically verbs of hitting, breaking, throwing, destroying, etc. [Fillmore 1970:120-133; Halliday 1970:155-155].

Secondly, while it may be possible to demonstrate statistically that the three complexes listed above are in some sense the major complexes, they are not, as will be shown below, the only ones, and many verbs -- probably a majority -- will accept several. Thus, what started as a simple trichotomy rapidly develops into a complex mosaic as different parameters are recognized, and the problems raised become increasingly difficult to handle in general terms as each new idiosyncrasy is uncovered.

The three complexes will now be examined in much greater detail.

a. S-verbs. In the foregoing discussion the verb -f- was classed as an S-verb on the basis of example (2a)-(2c), yet a difficulty arises when it is recognized that -f- will also participate in an L-complex:

(9) mtoto wake alikufa mjini 'His child died in town'
mjini kumakufa mtoto wake 'In the town his child died'

Should one now regard example (2a) an an example of an L-complex in which NP₂ was not realized, or should one say that -f- will participate in two different complexes? There are arguments in favour of both solutions, but I favour the latter on the grounds that the pattern in which NP₂ is not realized is far more common than that in which NP₂ is a locative, and it would seem unsatisfactory for the commoner pattern to be a realization of the less common. The verb -f- will also associate with a small number of NP₂'s (e.g. ndui 'smallpox', njaa 'hunger') for which an instrumental phrase may be substituted.
Amongst those verbs which, on present evidence, will only accept an S-complex⁸ are the following:

(9a) -ch- 'dawn', -ku- 'mature, become adult', -pw- 'ebb' (of the tide), -pe- 'mature', -fung- (b) 'fast'⁹

In a similar manner a substantial number of S-verbs will also participate in a complex in which NP₁ is animate, and semantically related to NP₂ as whole to part. Though in a majority of cases the part may constitute an inalienable possession of the whole, this is not the fact that is being stressed. This complex will be labelled R(eferential) and verbs so designated in the lexical component of the grammar will be found typically to designate physical or mental states. Two entailments occur with this verb type, as in (10) below, of which the first is isomorphic with a D-complex pattern like (1a), except that here the object-prefix is obligatory while in the D-complex it is optional. The focus-set is comparable in length to that for D-complexes, though (1d) has not been noted:

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⁸This assertion must be understood against the background of the informants used. In my experience there are at least three major positions adopted by native speakers of Swahili:

(i) Ready acceptance of a form plus an ability to contextualize freely.

(ii) Dubious acceptance of a form as possible without the ability to contextualize.

(iii) Rejection of a form as not occurring.

Needless to say, one may, even from a single informant, demonstrate the occurrence of a rejected form, since forms may be rejected not as forms but as contexts for particular lexical items, but these seem to be the main stances taken up. I am operating from the first, but other informants might well provide evidence for other groupings. I would expect the complex-distribution to be more idiosyncratic than the semantic generalizations it is possible to reach by means of it.

⁹The glosses are intended as no more than identification devices.
(10) mzee yule amechakaa mwili 'Old man that is-worn out body' (focus on the fact that the old man is worn out)

mwili umemchakaa mzee yule 'The body is-worn out (on) that old man' (focus here on the body)

mwili wa mzee yule umechakaa 'The body of that old man is-worn out' (focus here on the body)

Amongst the verbs which will accept this complex are the following:

(10a) -chaka- 'become worn out', -duduk- 'be disfigured', -changamk- 'be cheerful', -chok- 'become tired'.

In one or two cases the meaning of the verb in the entailment differs rather markedly. Thus:

(11) mtu huyu anatetema mkono 'This man's arm is quivering (as a result of disease)'

mkono unamatetema mtu huyu 'This man's arm is itching (to hit someone)'

As will be noted below a similar complex obtains for L-verbs.

b. D-verbs. A small number of these verbs -- perhaps two dozen in all -- [Whiteley 1968:20] will also accept an S-complex. Thus:

(12a) mke wangu amefunga mlango 'My wife has closed the door'

(12b) D-complex: mlango umefungwa na mke wangu 'The door has been closed by my wife'

(12c) S-complex: mlango umefunga 'The door is closed'

This is very close to the classical ergative pattern, but its occurrence is restricted, apparently, to the -me- 'perfective' and to the -fa- 'future' forms, and in both cases potentiality is stressed. Thus it is not the fact that the door is closed that is being stressed so much as the potentiality of the door for closing properly that is being realized. The distinction of meaning involved here might be regarded as a function of 'stativaizing' this D-verb, rather than as evidence for the existence of two homonymous verbs. The difficulties of fixing the boundaries between such verbs is demonstrably rather difficult [Bolinger 1971: 522-529], and the assertion of homonymy diverts attention from the overall affinity between the verbs involved. Stativization, concomitantly with
restrictions on nominal choice is relevant for the classification of a number of verbs, e.g. -fung- 'fast', -fung- 'be constipated', etc.

A second group of verbs accepts the entailment of the C(ontрастive) complex and is treated in detail below. This pattern is associated with marked retrospective focus [Whiteley and Mganga 1970:110-113], so the focus set of this complex is thereby lengthened. No complete list of verbs accepting this pattern has yet been worked out for any informant, but there is a high degree of variability in acceptance:

(13) shamba hili limelima watu ishirini
    'This farm has taken twenty men to cultivate it' (reference to preceding comment on its size)

It has often been pointed out that the grammatical subject of a passive sentence is also its psychological subject (or topic). In this pattern, then, the relationship between the grammatical subject and the verb is counter-experiential, i.e. counter to one's experience of the real world.

Finally, a number of verbs will accept an L-complex, with a locative at NP₂ (as well as at NP₃, for which see below). Thus:

(14) Wanawake wanalima bondeni    'Women are cultivating in the valley'
    bondeni kunalima Wanawake     'The valley is cultivated (by) women'
    bondeni kunalimwa na Wanawake  'The valley is cultivated (by) women'

This latter entailment seems the commoner of the two with D-verbs.

There does not seem to be a clear division between those verbs which will, and those which will not, accept such a complex, but rather a gradual shift from those for which it is characteristic, e.g. verbs of cultivating, eating, drinking, etc. to those for which it is unusual or strained, e.g. verbs of hitting, breaking, fastening, etc.

In D-complexes NP₁ is typically animate and NP₂ typically inanimate, but this is perhaps no more than a statement about the central pattern. It should be noted, however, that where NP₁ is inanimate and NP₂ animate, there are frequently two possible patterns in the entailment. Thus:

(15) risasi ilimpiga mtofo aliyesimama karibu
    'A bullet hit a child who was standing nearby'
(15a) m'oto aliyesimama karibu alipigwa kwa risasi
   'A child standing nearby was hit by a bullet' (on purpose)
(15b) m'oto aliyesimama karibu alipigwa na risasi
   'A child standing nearby was hit by a bullet' (accidentally)

This contrast between purposive/accidental action has been noted above.

c. L-verbs. Reference was made above to the C(ontrastive) complex, the
entailment of which is accepted by a number of D-verbs. All L-verbs so
far encountered will also accept the C-complex as additional members of
their focus-set. Thus:

(16) m'oto alifika nyumba (ile)  'Child arrived at house (previously
    mentioned)'
    nyumba ile ilifika m'oto  'That was the house the child arrived
    at' (so look for it there)

It will be apparent that $C_a$ and $D_a^{10}$ below are isomorphic, being distin-
guishable only in terms of focus level. Thus:

(16a) $C_a$ m'oto alifika nyumba (ile)  'Child arrived at house (that)'
    (focus is essentially retrospective)
(1)
(1) $D_a$ m'oto alivunja dirisha ile  'Child broke window that' (the
    window is now being mentioned for
    the first time)

The particular level of focus characterized by $C_a$ above for L-verbs is,
for D-verbs, signalled by (1c) (see section 2 above), and the feature
of contra-experientiality in the entailment is much less marked for L-
verbs than for the D-verbs previously mentioned. On the other hand,
there are some L-verbs for which the whole D-complex appears to occur,
though with some contrast in meaning such that one might wish to list
them separately in the lexical component. Cases like this are:

(17a) D-complex: m'oto aliruka jiwe  'Child jumped over stone'
    jiwe lilirukwa na m'oto  'The stone was jumped over
    by the child'

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10 The subscripts $a$ and $e$ are used to identify the base member
(example (1a)) and the entailed member (example (1b)) of a focus-set.
(17b) L-complex: mtoto aliruka jiweni  'Child jumped from/to stone'
jiweni kuliruka mtoto  'The stone was jumped-to/from (by) the child'

(17c) C-complex: mtoto aliruka jiwe lile  'Child jumped onto that stone' (having been told not to)
jiwe lile liliruka mtoto  'That was the stone the child jumped over' (if you want to take some action about it)

Note also:

(17d) -kimbi- mjini  'Run out of town'
-kimbi- mji  'Keep away from town'

In its entailment with L-verbs, however, the C-complex raises a difficulty. While the entailments of other complexes are each associated with a particular focal feature which can be stated for the complex as a whole, the focus of the contrastive entailment, while clearly on NP₁, seems also to be associated in some cases with variations in the meaning of the verb, so that no satisfactory general statement is yet possible. In these patterns there are, it is evident, restrictions on the occurrence of particular items at both NP₁ and NP₂, on the occurrence of the demonstrative in association with NP₁, and on the tense/aspect markers of the verb. To simplify the presentation all examples are first cited in the -me-
tense. Consider the following:

(18) sahani (ile) ime tambaa jongoo  'That dish has had a millipede walk over it' (and hence it must be cleaned)

(19) njia (ile) imesimama watu  'That street is blocked with people' (as opposed to Cₐ where people are merely standing in it)

(20) nyumba ile imekaa wageni  'That house has guests staying in it' (so there is no point in looking for a room there)

(21) nyumba imefika wageni wengi  'The house has many guests in it' (so there is no point in our going in)

(22) shamba hili limemea mihindi  'This farm has grown maize' (the soil being more suitable than for, say, millet)
(23) bahari hii imezama meli 'This stretch of water has sunk ships' (it has a bad reputation)
(24) daraja hili limepita tembo 'This bridge has taken an elephant' (is strong enough)
(25) nyumba hii imelala watu kumi 'This house has slept ten people'
(26) shamba hili limeingia mbega 'This farm has monkeys on it'

In the complexes that have been previously considered, one might say that, in some sense, the verb articulates the relationship between NP₁ and NP₂. In the examples cited above, however, (V + NP₂) appears to have an attributive function in relation to NP₁, which is captured in an English gloss to (22) above, thus, 'this is a maize-growing farm'. In almost all cases, however, one can infer from the sentence some quality of NP₁ which is responsible for such an attribute, thus in (18) the dish has perhaps something sticky on it, or has been in a place where such insects are known, and in (26) one could infer that the farm was badly placed and was liable to get monkeys marauding on it. The element of potentiality recurs in other tenses. Thus with the -a- tense, examples (19)-(21) and (26) will connote habituity to my chief informant [Sh. Y. Omar], while (22)-(25) will connote potentiality. Examples (18) and (24), by contrast connoted both habituity and potentiality in the -a- tense. The -ta- tense is equally interesting: it was not acceptable for examples such as (20) and (21), while in all the other examples there emerges a 'resultative' connotation:

(18) sahani ile itatambara jongoo 'That dish will have a centipede crawl over it' (as you're so stupid to leave it there)
(26) daraja hili tapita tembo 'This bridge will take an elephant' (since you have built it so substantially)

Much further work remains to be done here.

Finally, as was noted above, for S-verbs, a number of L-verbs will accept an R-complex. But while the R-complex associated with S-verbs is typically marked in the entailment of an animate NP₁ and an obligatory
object-prefix in the verb, R-complexes associated with L-verbs are typically marked in the entailment by the non-occurrence of an object-prefix and by a minimal distinction of meaning between the two members of the focus-set. Thus:

(27) nchi imeenea maji 'The country is covered with water'
    maji yameenea nchi 'The water covers the country'

(28) watu wametanda uwanja mzima 'People have completely covered the whole courtyard'
    uwanja mzima umetanda watu 'The whole courtyard is covered with people'

On the other hand, one might argue that the difference between this form of R-complex and that operating for S-verbs, together with the minimal difference in meaning, constituted evidence for thinking that this was not an R- but a C-complex in which the element of contrast in the entailment is minimal. While the evidence is inconclusive at this stage, there is some support for the R-complex view from patterns in the causative extension, see further below.

The complexes and combinations outlined above exemplify the simplest patterns. That is, S-verbs are essentially monadic in their ability to combine with a single NP (as surface subject), while D-verbs and L-verbs are essentially dyadic.

d. Extended patterns. Complications may be introduced by the occurrence of NP₃ (or NP₄). No comprehensive list is yet available of those verbs which will accept such an NP, but typically they appear to be D-verbs. At least four groups are clearly discernable:

(i) In some D-verbs NP₂ is a beneficiary, while NP₃ is the benefice. There appears to be only one case of a simple verb in which an NP₃ of this kind occurs obligatorily, -p- 'give', as in:

(29) watu walimpa Rais zawadi 'People gave the President a gift'
    Rais alipewa zawadi na watu 'The President was given a gift by (the) people'

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11It does not seem possible to have inherently benefactive clauses without a beneficiary, as occurs in English, e.g. 'We're giving a silver coffee-pot' [Halliday 1970:150].
There are, however, a number of other verbs where such an NP₃ occurs optionally, e.g. -ambi- 'tell', -lip- 'pay', -fany- 'do', -fung- 'fasten', -l- 'eat':

(30) baba alîmfunga tâi 'Father tied (his) tie for him'
(31) anâmla mwenzake pesa 'He's scrounging money from his friend'
(32) wamâmfanya mwâlimu jambo 'They've done the teacher a good turn'

All these verbs will be labelled $D_{B}$ (enefactive) which, as will be noted below, is characteristic of the -l-/e- extension.

There are at least three verbs which can conveniently be treated here, but which are not, perhaps, so obviously 'benefactive' as the above mentioned. These are -pak- 'daub', 'smear', -tî- 'put', 'place', -paki- 'load', as in:

(33) paka mafuta! 'Put on oil/grease!
(34) mama alîmpaka mîtofo mafuta (mkono) 'Mother put ointment on the child (‘s arm)
     mîtofo alîpakwa mafuta (mkono) na mama 'The child (‘s arm) was
     anointed by (the) mother'

In some cases both NP₂ and NP₃ seem to have the status of beneficiaries:

(35) Salma alîpaka poda uso mzîma 'Salma put powder over her whole
     face'
     poda ilîpakwa na Salma uso mzîma 'The powder was put by Salma
     over (her) whole face'
     uso mzîma ulîpakwa poda na Salma 'The entire face was covered
     with powder by Salma'

As to the verb -tî-:

(36) alîtia maji 'He put water (on it)'
(37) alîtia maji ndooni 'He put water in the bucket'
(38) alîtia maji ndoo 'He sprinkled water on the bucket'
     ndoo iliîtiwa maji naye 'The bucket was sprinkled-water-on by him'
(38a) Cf. maji yaliîtiwa ndoo naye 'Bucket was immersed in water by him'

This clearly belongs to a different focus-set, e.g. alitia ndoo majini. On the other hand, if an object-prefix and demonstrative occur, then both
NP₂ and NP₃ have the status of beneficiaries. It is not clear how widespread this phenomenon is:

(38b) allifia maji ndoo ile  'On that bucket he sprinkled water'
      ndoo ile ililiwa maji naye  'This bucket was sprinkled with water by him'
      maji yaliliwa ndoo ile naye  'The water was sprinkled (on) this bucket by him'

It will be noted that for this verb the beneficiary typically occurs as NP₃, in contrast to the other verbs cited. There is some evidence that this is correlated with the fact that neither NP is animate here, which seems also to be contributory factor in the extent to which neither NP may have the status of beneficiary.

As to the verb -paki-:

(39) wafanyikazi wallapakia mëli mizigo  'Workers loaded ship (with) cargo'
      mëli ilipakiwa mizigo na wafanyikazi  'The boat was loaded with cargo by the workers'

Here, NP₃ may also have the status of beneficiary, but in this case NP₂ is locativized:

(39a) mizigo ilipakiwa mëlini na wafanyikazi  'The cargo was loaded on the boat by the workers'

For none of the verbs cited in this section is it yet clear what other members of the focus-set may occur.

(ii) For many, perhaps most, of the D-verbs which will accept an L-complex, a locative NP₃ may occur, thus conflating the D and L complexes:

(40) mamangu afyeka magugu shambani  'Mother clears weeds from the garden'
      mamangu afyeka magugu      'Mother clears the weeds'
      mamangu afyeka shambani      'Mother clears the field'

In such patterns the entailments of both complexes may occur, but acceptance of other members of the focus-set is difficult to obtain.

As noted above acceptability of an L-complex must be distinguished
from that of an L-phrase,\footnote{The distinction might be more clearly brought out by stressing that the former is a sentence-locative while the latter is simply a verbal complement.} which may be general for all D-verbs.

Complexes accepting this pattern will be labelled $D_L$.

(iii) A third group of verbs accept an NP$_3$ which is associated essentially with some limitation or refinement of the information presented by (NP$_1$ + V + NP$_2$). This appears to be an extension of the pattern exemplified by the R-complex already set up for S- and L-verbs, but, whereas in those cases it is NP$_2$ which limits or refines the scope of V, here it is NP$_3$ which limits NP$_2$, as is the case with some of the causative verbs to be discussed below.

Typically, as in the simple and benefactive D-complexes, it is NP$_2$ which is entailed as surface subject, and NP$_3$ (the NP of 'limitation') which occurs in the entailment as NP$_2$, but some flexibility in the sequence of NP$_2$ and NP$_3$ is apparent. Complexes which will accept this pattern are labelled thus, $D_R$:

(41) waliyenga nyumba vyumba viwili 'They built the house of two rooms' (it being implied that no more are to be built)
nyumba iliijengwa vyumba viwili 'The house was built (as) two rooms'

(42) waliyenga vyumba viwili vya nyumba 'They built two rooms of the house' (it being implied that more are to be built)

(43) alitazama gari kioo 'He looked at the car's mirror' (this being a feature of the car)
gari iliitazamwa kioo 'The car was looked-at (at) the mirror'

(44) alitazama kioo cha gari 'He looked at the car's mirror' (not perhaps attached to any car, but simply an accessory)

(45) alitazama gari kwa kioo 'He looked at the car with a mirror'
(46) nilimshika mwizi shati 'I caught the thief by his shirt'

(47) nilishika shati ya mwizi 'I caught the thief's shirt' (but not the thief inside it)

(48) nilimshika mwizi kwa shati 'I caught the thief with (the aid of) a shirt'

(49) mfunge mwizi kamba 'Fasten the thief with rope (tie him up with it)'

(50) mfunge mwizi kwa kamba 'Fasten the thief with rope (to something else)'

(51) namchukia Ali maneno yake 'I dislike Ali on account of his words' (but it is only his words I dislike)

(52) namchukia Ali kwa maneno yake 'I dislike Ali on account of his words' (they are what makes me dislike him)

(53) buibui amekitanda hariri chumba kizima 'A spider has woven a web over the whole room'

chumba kizima kimetandwa hariri na buibui 'The whole room was woven—a web—over by the spider'

With a verb like -pig- a number of difficulties arise, and in any detailed study one would need to consider whether to set up 'phraseological units' for such units as -pig- pasi 'iron', -pig- mbio 'run', -pig-teke 'kick', etc.:

(54) nilimpiga mfu kichwa 'I hit the man with my head'

(55) nilimpiga mfu fimbo ya kichwa 'I hit the man a blow on the head'

(56) nilimpiga mfu kwa kichwa 'I hit the man with a head (of something, using it as an instrument)'

On the other hand:

(56a) nilimpiga mwizi jiwe/risasi 'I hit the thief by throwing a stone at him/by firing at him'
cannot easily be handled in this way, especially since there is no necessary implication of actually hitting him. It might be preferable here simply to list -pig- jiwe 'throw a stone at', -pig- risasi 'fire at'.

(iv) The most common of these patterns is that in which a part/whole relationship obtains between two NP's, the inalienable quality of the relationship being conventionally rather than universally conceived. Complexes accepting such patterns will be labelled with a subscript P(artitive).

Relationship of NP₁ to NP₃:

(57) baba amenificha siri yake 'Father kept his secret from me'
    nimefichwa siri yake na baba 'I was kept-his-secret-from by father'

As with the other NP₃ patterns (-ti- excepted) it is NP₂ (the 'whole') which is entailed as NP₁, and NP₃ (the 'part') which is entailed as NP₂.

Relationship of NP₁ to NP₂:

(58) kichwa kinamfuka mama moto 'Mother's head is hot' (i.e. she has a high fever)
    kichwa chake (mama) kinafuka moto 'Mother's head is hot'

Since -fuk- is an S-verb the first of these examples looks like an R₁-complex but no entailment occurs, only the variant second sentence. It is not certain whether any other verbs follow this pattern.

Relationship of NP₂ to NP₃:

Of the three this is by far the most widespread pattern, occurring for a wide range of verbs with a D pattern among their complexes, as also for some S- and L-verbs. NP₂ is typically animate and is entailed as NP₁:

(59) nilimvunja mwenzangu mguu 'I broke my pal's leg'
    nilimvunja menzangu maneno yake 'I contradicted my pal's words'

(60) nilivunja meza miguu miwili 'I broke two of the table's legs'

It could be argued, I think, that this is an example of a D₉-complex (as discussed above) rather than a D₇-complex, since what appears to be
stressed here is that the table was broken by having two of its legs 
broken, and not the relationship of the legs to the table, nor indeed to 
any table, which would find expression in:

(61) nilivunja miguu miwili ya meza 'I broke two legs of the table'

Similar patterns occur for other verbs of breaking, hitting, damaging, 
closing, etc., as in:

(62) mtu huyu amemwiba mwenzake maneno 'This chap stole his friend's 
words'

The series of items which can occur at NP₃ is restricted to immaterial 
possessions of NP₂, ... e.g. intelligence, opinions, reputation, shadow, 
etc. All material possessions require an extended verb, as in:

(63) dawa ile ilimpofoa macho 'That medicine deprived him of sight'

(64) mwizi alimpokonya mali 'The thief snatched his property (from 
him)'

(65) watu wengi walimwona mtu shati yake 'Many people saw (and recog-
nized) him by his shirt'

(66) wallisafisha gari magurudumo 'They cleaned the car's wheels'

This example might be interpreted as a $D_R$-complex.

All the above examples operate as $D$-complexes, with NP₂ (the 'whole') 
being entailed as NP₁.

Such patterns also occur for S- and L-verbs:

(67) majasho yaliwalowa watoto mashati yao 'Sweat soaked the children's 
shirts'

watoto walilowa majasho mashati yao 'The children had their shirts 
soaked with sweat'

(68) mtoto alikauka macho machozi 'The child had his eyes dry of 
tears'

macho yalimkauka mtoto machozi 'The child's eyes were dried of 
tears'

The above entailment, however, is anomalous for complexes with L-verbs, 
and it is not clear how widespread such an anomaly is. Note also: 
(69) kichwa chake kizima kimeenea mvi 'His whole head is covered with white hairs'
mvi zinemwenea kichwa kizima 'White hair covers (his) entire head'

Before discussing the complexes associated with extended verbs, it is worth summarizing the complex-data that will need to be incorporated into the lexical component, by considering two verbs in detail.

- ingi- 'enter'

L-complex [NP₁(+anim)] ('enter, go in'):

(70) watu waliingia nyumbani 'People entered the house'
nyumbani kuliingia watu 'Into the house entered people'

(71) watu waliingia vumbini 'People entered a dusty area'
(Vid. C-complex below)

C-complex:

(72) watu waliingia nyumba ile 'People entered that house (one previously referred to)'
nyumba ile iliingia watu 'That was the house people went into'
(substantial number of people implied)

D-complex₁ [NP₁(+anim), V(+op)]:

(73) watu waliliingia vumbi 'People went into a dusty place'
vumbi liliingiwa na watu 'The dusty-place was entered by people'

For some speakers, an added variant pattern

(73a) vumbi liliwaingia watu 'The dusty-place was entered by people'
occurs which is characteristic of R-complexes, though there is skewing in the Rₐ pattern.

D-complex₂ [NP₁(+anim), V(+op)] ('penetrate, infiltrate'):

(74) Wakikuyu wameuingia mji huu 'The Kikuyu have infiltrated this town'

D-complex₃ [NP₂(+anim), V(+op)] ('afflict'):

(75) ugonjwa uliwingia mzee 'Illness afflicted the old man'
R-complex \([\text{NP}_1(\text{anim}), \text{NP}_2(-\text{anim})]\) ('become covered with'):

(76) \(\text{watu wameingia vumbi} \quad \text{'People are covered with dust'}\)  
\(\text{vumbi limeingia watu} \quad \text{'Dust covered the people'}\)

(77) \(\text{wadudu wameingia sukari} \quad \text{'The insects are covered with sugar'}\)  
\(\text{sukari imeingia wadudu} \quad \text{'Sugar covered the insects'}\)

While informants from Dar es Salaam and Zanzibar accepted this complex without demur, it was not acceptable to the informant from Mombasa, who maintained that:

(77a) \(\text{sukari imeingia wadudu} \quad \text{'The sugar was infested with insects'}\)

could only mean that the insects had contaminated the sugar so as to make it unfit for use, and the two sentences in (77) above are not related by entailment at all, but were comparable to such pairs as:

(78) \(\text{fimbo yangu imevunja kifi} \quad \text{'My stick has broken the stool'}\)

(79) \(\text{kifi kimevunja fimbo yangu} \quad \text{'The stool has broken my stick'}\)

for which the appropriate entailments, this being a D-verb, are:

(78a) \(\text{kifi kimevunjwa na fimbo yangu} \quad \text{'The stool was broken by my stick'}\)

(79a) \(\text{fimbo yangu imevunjwa na kifi} \quad \text{'My stick was broken by the stool'}\)

The position is well illustrated by the following two examples:

(80) \(\text{sumu imeingia maji} \quad \text{'Poison is impregnated with water (and hence diluted)'}\)  
\(\text{maji yameingia sumu} \quad \text{'Water is contaminated with poison (and hence undrinkable)'}\)

(81) \(\text{kifi kimeingia mkojo} \quad \text{'The chair is impregnated with piss'}\)  
\(*\text{mkojo umeingia kiti}\)

In none of the examples accepted by the informant from Mombasa was any entailment accepted, so that one must regard each sentence as a \(R^a\) in a focus-set of which it is the only member.
-tok- 'go out, come out, leave'

L-complex:

(82) mtu ametoka chumbani 'A person has left the room'
    chumbani kumetoka mtu 'Someone has come out of the room' (quite
    unexpected, you thought the room was empty)
(83) moshi unatoka nyumbani 'Smoke is coming from the house' (from a
    kitchen fire, stove, etc.)
    nyumbani kunatoka moshi 'From the house smoke is coming' (implying
    that the house is on fire)

D-complex₁ \([\text{NP}_1\text{ limited to a series of items designating extrusions,}
\text{ especially involuntary, from the natural orifices of the body, e.g.}
\text{ jasho 'sweat', pele 'pimples, damu za pua 'bleeding from nose',}
\text{ mkojo 'urine', mate 'spittle', shuzi 'flatulence', mavi 'excreta',}
\text{ ute 'dribble': } [\text{NP}_2(\text{+anim, + human}), V(\text{+op})]]:
(84) jasho lamtoka mtu 'The man is sweating' ('Sweat comes from the
    man!')
    mtu atokwa na jasho 'He is pouring (with) sweat'

D-complex₂ \([\text{NP}_2(\text{+anim})]\) (there is here a sense of the event being beyond
the control of \(\text{NP}_2\)):

(85) neno limetoka mtu 'A word slipped out of him'
    mtu ametokwa na neno 'He had a word slip out (of him)'
(86) chumba kimetoka mtu 'The room slipped from his grasp' (he lost
    it)
    mtu ametokwa na chumba 'He lost the room'
(87) mume amėmtoka mkewe 'The husband left his wife'
(88) roho yametoka mzee 'Life is ebbing out of the old man' (see below)
(89) huyu amėmtoka mwenziwe 'This chap has pulled away from his pal
    (in a race)'

D-complex, \([\text{NP}_2(\text{+anim}), V(\text{+op})]\) ('stick out, protrude'):

(90) vifupa vinamtoka maskini 'The bones are sticking out of the poor
    chap'
    maskini anatokwa na vifupa 'The poor chap has his bones sticking
    out of him'
(91)  (D only) mtu huyu ametokwa na jino 'This chap has a protruding tooth'

(Here NP₂ limited to series of protrudable parts of the body, e.g. shingo 'neck', maslikio 'ears', ulimi 'tongue'.)

R-complex [NP₂ limited to an extremely short series of items designating abnormal extrusions from the natural orifices, e.g. damu 'blood', usaha 'pus', machozi 'tears']:

(92)  mtu ametokwa damu 'The man is bleeding'
      damu imemtoka mtu 'Blood is coming out of him'

Rₐ only. [NP₂ restricted to excisable parts of the body, e.g. jino 'tooth', mguu 'leg', mkono 'arm']:

(93)  mtu ametokwa jino 'He's lost a tooth'

C-complex:
In Cₐ the relationship of NP₁ to NP₂ is that of contained: container, or component: whole, as in:

(94)  shoka limetoka kipini 'The axe has come out of the haft'
(95)  pombe imetoka chupa hii 'The beer has come from this bottle'
(96)  pombe yatóka mnazi huu 'The beer comes from this palm tree'
(97)  maji yametoka ndoo hii 'The water comes from this bucket'
(98)  maji yatóka mferéji huu 'The water comes from this tap'
(99)  vitabu vimetoka kabati hili 'The books come from this cupboard'

In Cₑ the relationship is not easy to define and in some cases the pattern does not occur at all (e.g. *(95), *(97)):

(94a)  kipini kimetoka shoka 'The handle comes from (i.e. belongs to) the axe'
(96a)  mnazi huu watoka pombe 'This palm tree still yields beer'
(98a)  mferéji huu watoka maji 'This is a water-producing tap'
(99a)  kabati hili limetoka vitabu 'This cupboard yields books' (discovered accidentally)
There are some cases in which $C_e$ occurs but not $C_a$. Thus:

(100) kiambaza kimetoka nyufa  'The wall has come out in cracks'
       *nyufa zimetoka kiambaza hiki

The major complexes and combinations accepted by simple verbs are summarized in Appendix 1, below.

3. Complexes of extended verbs

a. The -i/-e- extension. Verbs characterized by this extension have been variously referred to in the standard literature as 'applied', 'directive' or 'prepositional' [Aston 1944; Loogman 1965; Polome 1967; Sacleux 1909] and most writers have recognized the very wide range of meanings associated with them. They have, however, been handled generally on morphological grounds, with little attempt to treat the syntax of such extensions. At least four areas of meaning can be distinguished, but it must be recognized that examples can readily be culled from the periphery of each area so that on semantic grounds additional distinctive areas could be proposed:

1. Contrastive: -nuk- 'smell bad', -nuki- 'smell pleasant'; -sem- (+op.+anim.) 'speak ill of', -seme- 'speak to'; -chek- (+op.+anim.) 'mock', -cheke- (+op.+anim.) 'be indulgent to'; -+tend- (+op.+anim.) 'treat badly', -+tende- (+op.+anim.) 'treat well'; -kos- 'commit an error', -kose- 'commit a trivial error'; -on- 'see', -one- 'bear a grudge against'.

On the other hand there is little contrastive in the pairs: -baki 'remain over', -baki- 'remain over'; -um- 'hurt', -umi- 'hurt'; -ngoj- 'wait for', -ngoje- 'wait for'. Speakers may, however, vary in this respect.


Again, there is little conformity with the above in the following pairs: -l- 'eat', -li- 'eat someone else's portion of food'; -zib- 'stop up', -zibi- 'stop up against someone'.
3. Locative: -end- 'go', -ende- 'go to' (directional); -kimbi- 'run off', -kimbili- 'run off to', 'run after'; -me- 'sprout', -mele- 'sprout among, in'; -pi†- 'pass', -pi†i- 'pass by'; -geuk- 'turn', -geuki- 'turn towards'.

4. Instrumental: -le†- 'bring', -le†e- 'bring with (the aid of)'; -on- 'see', -one- 'see with' (e.g. binoculars); -fung- 'fasten', -fungi- 'fasten with, by means of'.

These areas of meaning are associated with characteristic syntactic patterns which may be more or less closely related to those characteristic of the simple verbs. Those extended forms, for example, with contrastive meanings seem generally to accept complexes similar to those for the simple form, and they will not be further discussed here, beyond remarking that it should not be assumed that because an extended form is associated with a contrastive meaning it cannot also be associated with either benefactive or instrumental meanings (see -on- below).

The remaining extended verbs may be described as monadic, dyadic or triadic in their capacity to combine with one, two or three NP's but the role of NP₂ (and NP₃) differs significantly from that of comparable NP's in complexes associated with simple verbs. For example, while there is a wide range of variation in the status of NP₂, its occurrence with extended verbs in benefactive and instrumental complexes appears typically to be obligatory, though there are cases in which NP₂ is optional:

(101) anapita 'He's passing by'
(102) wanatazamia tu 'They're just looking out'
(103) watakiani? 'What do you want?'

In a very few cases an S-complex can be set up:
(104) mwalimu, Juma anaibia! 'Teacher, Juma's copying!'

What is true for NP₂ also holds for NP₃: in a majority of cases (Ve + NP₂) adequately instantiates the activity designated by Ve, but in others NP₃ is obligatory. This is a characteristic of D-verbs, while (Ve + NP₂) complexes are characteristic of L- and S-verbs. Thus this extension appears
to require the addition of an NP, typically occurring obligatorily, which contributes to the conversion of D-complexes into $D_B$-complexes; L- and S-complexes into D-complexes, and S-complexes into L-complexes according as the NP is plus or minus locative.

(i) B(eneefactive) complexes may be regarded as a variety of D-complex, in the sense that they will accept comparable entailment, but the focus-set to which they belong is much shorter and comprises additionally only (e) and (f) as listed earlier, see Section 1. The following examples are illustrative of the area of meaning involved:

(105) Yohana anamlimia baba shamba  
      'Yohana is cultivating the plot for his father'

      baba analimiwa shamba na Yohana  
      'Father is having the field cultivated for him by Yohana'

Implicit here is a partial entailment in which $NP_3$ occurs as surface subject:

(105a) shamba linalimwa (na Yohana)  
      'The field is cultivated (by Yohana)'

The beneficiary could only be expressed as some form of benefactive phrase:

(106) Mwana amemfia baba baharini  
      'The child died to his father's bereavement at sea'

      baba amefiwa na mwana baharini  
      'The father was bereaved through the death of his son at sea'

      baharini kumekufa Yohana  
      'In the sea Yohana died'

(107) ilete maji hii meza  
      'Bring the water for this table (to wash it)'

      hii meza iletewe maji  
      'This table should be brought water'

      maji yaletewe  
      'Water should be brought'

(108) Alimletea mfu zawadi  
      'He brought a present for the man'

(109) Amewaachia watoto wake mali  
      'He left his children wealth'

(109a) Nimemwachia mfu lile deni  
      'I've let the chap off that debt'

(110) Ukinionea kalamu ninunulie  
      'If you see a pen for me, buy it (for me)'

(111) Amenizibia njia  
      'He's blocked the path against me'
(112) ...nani yule aliyetufungia mlango... 'Who was it who shut the door on us?'
              nenda kanifungie mlango! 'Go and close the door for me!'
(113) Aliwasemaa mambo mengi sana 'He said a great deal to them'
(114) Watu wamenijalia nyumba tele 'People have filled the whole house for me' (a complaint against uninvited guests to a funeral party)

(ii) In I(nstrumental) complexes NP₃ precedes both NP₁ and the verb, where there is a concomitant NP₂, and there is no object-prefix associated with either of the NP's.¹³ Where no NP₂ occurs NP₃ may either precede the verb and NP₁ or follow them. There appears to be no entailment, and no member of this focus-set has been noted. Such complexes will be labelled Dᵢ(nstrumental). Examples are:
(115) ndoo hii aletea maji 'With this bucket, he brings the water'
(115a) ndoo hii ṃfoto aletea maji 'With this bucket, the child uses for bringing water'

There is clear evidence that in this pattern NP₃ is treated, intonationally at any rate, as in parenthesis.

The following examples illustrate the area of meaning involved. All triadic examples are of verbs whose simple complex inventory includes D; all dyadic examples are of verbs whose simple complex inventory includes L:
(116) kamba ile,nitafungia sanduku 'With that bit of rope I'll fasten the box'
(117) simiti,amezibia nyufa 'With cement he's filled the cracks'
(118) ninaonea mbali miwani hii 'I can see a long way with these glasses'
(119) ... siyaonei hata kidogo 'I don't see with them (eyes) at all'

(This last example (119), from a modern novel [Abdalla 1968], is one of the few counter-examples I have for the statement above about object-prefixes, see footnote 13.)

¹³There appears to be considerable variation with geographical dialect, some speakers preferring NP₂ in post-verbal position, and not excluding the occurrence of an object-prefix.
(120) chakula watelia sahani hii 'The food they'll eat with this plate'

(121) koti hili natembelea 'In this coat I go out'

(122) twaa kibao ukalie 'Take a bench and sit on it'
    kalia kiti kile 'Sit on that chair!'

The fact that $D_B$ or $D_I$ complexes occur for a given verb in no way
precludes the co-occurrence of $D$ or $L$ complexes for that extended verb;
the former being characteristic of verbs whose simple inventory includes
$D$ and $L$, while the latter occurs only for verbs whose simple inventory
contains $L$ or $S$.

(iii) $D$-complexes: As noted above an object-prefix is obligatory where
NP$_2$ is animate, but not otherwise. For E-verbs it is difficult to abstract
a semantic element in these complexes, possibly they constitute an inchoate
new base form. For L-verbs direction 'to/from' is implicit:

$D$, $L$-verbs:

-tazam-

(123) watu wanalitazamia gari 'People are looking out for the car'

-ju-

(124) anaijulia (radio) 'He knows (all) about it'

(125) huyu mkali lakini namjulia 'She's sharp-tongued but I know (how
to handle her)'

$L$, C-verbs:

-j-

(126) amanijia 'He has come to me (i.e. to see me)'

-tembe-

(127) mtembelee Juma 'Call on Juma!'

-rudi-

(128) akarudia toza yake 'He returned to the bowl of his pipe [Abdalla
    1968]'
-kimbi-

(129) walikimbilia basi 'They ran after the bus'
(130) walimkimbilia mwizi 'They ran after the thief'

but note:

(131) navikimbilia viafu hivi 'I'm after these shoes (in a sale)'

L-complexes: These behave as do L-complexes for simple verbs:

(132) mifi umemelea maweni 'The tree has sprouted among stones'
(133) wageni wamafikia nyumbani 'Visitors have come to my house (i.e. to stay)'

A complex-inventory for such extended forms might be established as follows:

-on- (D) 'see'
-one-₁ (D) 'bully'
-one-₂ (D₁,B₂) 'see for (on behalf of)', 'see with (the aid of)'
-kimbi-₁ (D₁,L) 'run away from'
-kimbi- (D) 'run after'
-kimbi-₂ (D) 'keep away from'
-piti- (D₁,C₉,L) 'pass'
-piti-₁ (D₁ +op, NP₂, anim) 'pass by, pass along'
( D₁ +op, NP₂, +anim) 'pass into'
( D₁ +op, NP₂, +anim) 'pass by (over), neglect'

b. The 'causative' extension. Not all verbs will accept this extension
but this is not a fact which can easily be inferred from the 'real world'
picture. While one might reasonably argue that a verb like -ch- 'dawn'
would be unlikely to accept such an extension, the non-occurrence of the
extension for verbs like -let- 'bring', -zib- 'stop up', -j- 'come',
-tazam- 'look at', etc. must be regarded as in some way culture-specific:¹⁴

¹⁴ An interesting study could be made of causatives that have only
recently gained currency; thus, -tafish- 'nationalize', (e.g. the banks,
etc.) rather than 'grant independent to', which might have occurred given
the meaning 'nation' of taifa, and a causative extension.
It must also be pointed out that in Swahili there is evidence that
the morphological element labelled 'causative' may represent two different
extensions, the one associated with causation, the other with intensifi-
cation. On semantic grounds therefore, the two would require separate
treatment. Consider, for example, the following:

(133a) -ny- 'drip, rain' > -nyesh- 'rain hard'; -ongo- 'guide'
   -ongoz- 'lead'; -nyama- 'be silent' > -nyamaz- 'be very quiet';
   -ap- 'swear' > -apiz- 'curse at'; -tōk- 'come out' > -tōkez-
   'project'; -siki- 'hear' > -sikiz- 'listen'.

The line between such 'intensives' and what I would call 'causatives' may
well be drawn differently: Scotton [1967], for example, includes -sikiz-
in her study of causatives, as well as -onyesh-, which I would prefer to
treat as a 'double causative'. It must also be borne in mind that, as
with the -i/-e- extension discussed above, some causatives are asso-
ciated with a contrastive meaning and with complexes characteristic of
simple verbs, e.g. -on- 'see', -ony- 'advise', 'reprove'. Finally,
there are likely to be a number of special cases which do not fit easily
into already established categories, such as -piît- 'pass', -pish-
'let pass' (see also -pitish- below), as in:

(134) njia hii haipishi 'This road is impassable' (but temporarily only,
in contrast to haipitiki, which is more permanent)

Where NP₁ is animate this extension will accept a D-complex but not
otherwise. It seems best, therefore, to label -pish- with a D-complex
and add the proviso that where NP₁ is inanimate then NP₂ is realized as
zero. Similarly, with -on- 'see', -ony- 'reflect' (see -ony- above):

(135) Kioo hakionyi 'The mirror doesn't reflect'

Here, one can quite simply accord -ony- a special gloss and an S-complex.
Next, consider -pend- 'like', -pendez- 'please (someone)'

(136) leso hii yapendeza 'This headscarf pleases'

Superficially this appears similar to -pish- above, but in fact -pendez-
will accept a D-complex whether NP₁ is animate or not, and can, therefore,
simply be accorded a D-verb status.

In the discussion that follows, I shall treat as causatives only those forms which are:

(i) characterized by a causative extension,\(^{15}\) and

(ii) associated with an NP\(_1\) which either directly or indirectly, deliberately or involuntarily effects the state or activity designated by the simple verb. As will be noted below it may not always be the case that success is achieved.

Consider the following examples:

(137) mzee alimchekesha mtoto wangu  'The old man amused my child'
(138) alimfungisha Ali  'She was responsible for Ali's being jailed'

In example (137) NP\(_1\) was directly responsible for making the child laugh, either by telling jokes, pulling faces, etc. In (138), the woman was indirectly responsible for the jailing by her testimony, but perhaps involuntarily. Scotton [1967] makes a clear distinction between the former, with NP\(_1\) as 'director' and the latter, with NP\(_1\) as 'actor', but while the distinction is clear in some cases it is not always so, and the implication of direction is often less appropriate than that of initiation of an action, suggested by Christie [unpublished], who still has to recognize that in the sentence:

(139) aliwavusha watoto wale  'He got the children across (the river)'

both initiation and action may be involved, depending on circumstances, e.g. whether he phoned up the ferry and got someone to take them over, or took them over himself.

It can be argued that in these and other such cases, \(V_c\) involves two sets of complexes, the second being implied as a consequence of the first (\(V_c =\) causativized verb; \(V_s =\) simple verb):

\[
(139a) \text{NP}_1 + V_c + \text{NP}_2 + (\text{NP})_3 \supseteq \text{NP}_2 + V_s + (\text{NP})_3
\]

\(^{15}\)For the shape of this extension see the standard texts, e.g. Ashton [1944].
To return to the examples:

(137) mzee alimchekeshla mtoto wangu ➞ mtoto wangu alicheka
    'The old man amused my child' ➞ 'My child laughed/was amused'

(138) alimfungisha Ali ➞ Ali alifungwa
    'He had Ali locked' ➞ 'Ali was locked'

(139) aliwavusha watoto wale ➞ watoto wale walivuka
    'He got the children across' ➞ 'The children crossed'

(140) alijaza ndoo maji ➞ ndoo ilijaa maji
    'He filled bucket water' ➞ 'The bucket was filled with water'

The example (138) is anomalous, with -fungish- designating both 'cause to fasten' and 'cause to be imprisoned'. The simple form of the latter is the passive -fungw- and not the simple form -fung-.

There has been, in recent months, a considerable amount of discussion on the relationships between such pairs as 'become full/fill', 'like/please', etc. which seem to find a counterpart in the causative system of languages such as Swahili. One must recognize, however, that while the implication suggested above will hold for many cases, there are a number where it will not. While, in other words, the process of causation implies success in many cases, in some it does not. One may cause someone to remember something by reminding him, but it does not follow that he will remember, which cannot be said of forgetting. Similarly one can show someone something without their necessarily seeing it. The status of this implication will, therefore, vary.

Returning to the examples above, it is possible to allocate to each extended verb a complex-label which includes as a subscript that of the simple verb in the implication where this is operative. Thus:

(140a) -chefesh- (D_S) 'cause to laugh, amuse'
    -fungish- (D) 'effect the imprisonment of'
    -vush- (D_D) 'cause to cross (river), ferry over'
    -jaz- (D_R) 'fill, cause to be full'
Again, the complex-labels are ideal statements: the $D_D$ for -vush- indicates that NP$_3$ may occur, just as in the example for -jaz- NP$_3$ need not occur. Simple D complexes seem to participate in focus-sets of a length comparable to those for simple verbs, but for $D_R$ the series seems to be restricted to (c), (e) and (f) of the original series (see Section 1, above). Both NP$_2$ and (in some cases) NP$_3$ may be entailed as surface subject in the $D_D$ complex, and the focus-set is restricted to (e) and (f) types only.

(i) **Verbs with S-complexes in their simple inventory.** (No causative patterns have been noted for -ch-, -pw-, -pe- or -fung-(B).)

-ku/-kuz-(D)

(141) Mungu akukuze! 'May God bless you'

-changmk/-changamsh-(D)

(142) habari hii itawachangamsha sana 'This news will greatly cheer them up'

-chok/-chosh-(D)

(143) kazi hii itanichosha 'This job will tire me'

-chokesh-(D)

(144) kalamu hii imenichokesha 'This pen has wearied me'

(ii) **Verbs with D-complexes in their simple inventory.** (No causative patterns have been noted for -chung-, -finyang-, -ib-, -let-, -on-, -tazam-, -vun-, -vunj-, -zib-.)

-pend/-pendez-(D) 'please'

(145) msichana huyu anipendeza sana 'This young girl pleases me very much'

-pendez- accepts an R-complex for which there appears to be no parallel in the language beyond its converse -tukish- (Mombasa dialect: St. -chukiz-). Thus:

(146) koti hili lakupendeza 'This coat suits you'
wapendeza kwa koti hili  'You look well in this coat'
(148) koti hili lakutukisha  'This coat doesn't suit you'

-pand-(D,C_e)/-pandish-(D,D)  'cause to climb'

(149) mpandishe mtoto mtii  'Get the child to climb the tree'
(150) askari aliipandisha bendera  'The soldier raised the flag'

-1-(D,C_e)/-lish-1(D)  'feed'
(151) mama amelisha mtoto wali  'Mother has fed her child rice'

-lish-2(D)  'graze (on)'
(152) mchungaji alisha ng'ombe  'The herdsman is grazing the cattle'
(153) ng'ombe walisha majani  'Cattle graze on grass'

-lish-3(S)  'whet the appetite'
(154) achari yalisha sana  'Pickles are great appetizers'
(155) hapa palisha sana  'This is a very attractive place' (used in fishing to describe a good place for finding fish, or by young men of a place where they will find plenty of girls)

-va-(D,C_e)/-vish-(D)  'clothe'
(156) mama anamivisha mtoto soksi  'Mother is putting the child's socks on'

-pig-(D,C_e)/-pigish-(D) kelele  'cause to shout'
(157) mtoto anampigisha mamake kelele  'The child is making its mother shout' (at it)

-fung-(D)/-fungish-(D)  'cause someone to close something'
(158) ametufungisha mlango bure  'He has made us shut the door to no purpose'

-fungish-2(D)  'cause to be defeated, jailed'
(159) Juma aliifungisha timu yake  'Juma was instrumental in causing his team's defeat' (he simply played badly)

-fungish-3(D)  'take an option on, reserve'
(160) amefungisha leso ile kwa Ibrahim  'She has reserved that kerchief with Ibrahim'
-fungiz-(D) 'confine'
(161) mvua imetufungiza leo 'The rain has kept us in today'

-shik-(D,C_e)/-shikish-(D_D) 'cause to take hold of'
(162) mshikishe mtoto kikabu 'Get the child to take hold of the book'

-shikiz-(D) 'stabilize'
(163) ishikize meza kwa kitu 'Stabilize the table with something'

-pik-(D,C_e,L)/-pikish-(D_D) 'make cook'
(164) mtoto amempıkisha mama chakula 'The child has got his mother to cook food'

-naw-(D,L)/-nawish-(D_D) 'provide washing water'
(165) nimemnawisha mtoto (mikono) 'I have provided water for the child to wash his hands'

-navy-(D) or (D_D) 'clean by washing'
(166) nimemnunya mtoto (choo) 'I have cleaned the child (after defecation)'

-som-(D,L)/-somesh-(D) 'provide education (for), teach'
(167) mimi nimemorsesha mtoto wangu 'I have seen to my child's education'

(168) mwalimu anawosomesha wanafunzi 'The teacher is teaching the pupils'
(169) skuli yawosomesha wanafunzi wengi 'The school produces/turns out many pupils'

-lim-(D,C_e,L)/-limish-(D) 'make cultivate'
(170) X alimisha shamba lake 'X. gets labour to cultivate his farm'
(171) shamba hili limenilimisha mwezi mzima 'This farm requires a whole month of hired labour'

-pit-(D,C,L)/-pitish-(D_D) 'cause to pass, enable to pass'
(172) mumewe alipitisha gunia chumbani 'Her husband got the sack into the room' (e.g. by pushing it)

(iii) Verbs with L-complexes in their simple inventory.

-ruk-(L,C,D)/-rush-(D_D) 'make fly'
(173) mtoto anarusha kishada chake kiwanj 'The child is flying his kite on the playing field'
-rukiz-(D₁, D) 'make fly over'

(174) alimrukiza mtoto sura mbili 'He got the child to skip two chapters'

(175) nimrukiza sura mbili 'I have skipped two chapters'

-kimbi-(L₁, D₁, C₁)/-kimbiz-(D₁) 'make run off'

(176) ukali wake ulimkimbiza sokoni 'His fierceness drove him from the market'

(177) mtu alimkimbiza mtoto shuleni 'Someone made the child run away from school'

-fik-(L₁, C₁, Dₑ)/-fikish-(D₁) 'cause to arrive'

(178) tulimfikisha mgeni mjini 'We saw the guest into town'

-tembe-(L₁, C₁, Dₑ)/-tembez-(D₁) 'take for a walk'

(179) alimtembeza mgeni mjini 'He took his guest for a walk in town'

-ka-(L₁, C₁, Dₑ)/-kalish-(D₁) 'keep seated, confine indoors'

(180) amenikalisha nyumbani kutwa 'He made me stay at home all day'

-shuk-(L₁, C₁, Dₑ)/-shush-(D₁) 'make descend, lower'

(181) mtu alishusha kikapu 'The man put down/lowered the basket' (i.e. by himself)

-shukish-(D) 'guide down, help lower'

(182) mtu alishukisha kikapu 'The man guided the basket down' (i.e. helped to bring it down)

-me-(L₁, C₁)/-mez-(D₁) 'plant'

(183) Ali ameimeza miti mingi sana (shambani) 'Ali has planted many trees (in the field)'

-rudi(L₁, C₁)/-rudish-(D₁) 'return something'

(184) mwanafunzi aliyarudisha mabuku yote 'The pupil returned all the books'

-tot-(L₁, C₁)/-tos-(D₁) 'Throw overboard, into the sea'

(185) mabaharia waiimoto ali baharini 'The sailors threw Ali into the sea'

-ja-(L₁, C₁, R₁)/-jaz-(Dᵣ) 'fill'

(186) mama alijaza ndoo maji 'Mother filled the bucket (with) water'
-pa-(L,C,R)/-paz-(D_R) lit: 'cause to rise'
(187) habari ilimpaza mgeni roho 'The news gave the guest a turn'  
(lit: 'made his heart rise')

-wak-(L,C,R)/-wash-(D_R) 'set light to'
(188) mtu huyu allwasha nyumba moto 'This man set fire to the house'

-wakish-(D)(NP_2 - anim) 'inflame' (fig.)
(189) tabia yake ilimwakisha mumewa 'Her behaviour infuriated her husband'

-ene-(L,C,R)/-enez-(D_R) 'cause to spread'
(190) mtu ameeneza habari mji mzima 'He spread the news round the whole town'

From a consideration of the above data it seems clear that a close syntactic relationship exists between the simple and the causative form. Provided the complex-inventory of the simple form is known, then the complex-pattern of the causative can be predicted with a high degree of probability. Thus, while a D-complex is a feature of all causatives, those verbs with S in the complex-inventory of their simple forms will accept D_D. Those with L and R will likewise accept D_L and D_R respectively.

4. Conclusions

In the foregoing pages an attempt has been made to reach a classification of Swahili verbs in terms of their capacity for participation in different kinds of complexes, this being an abstract device set up between the observable surface patterns and hypothesized deep structures. Basically the classification is trichotomous, yielding Stative, Directive and Locative case-complexes of verbs, but the boundaries between the classes are blurred because of what might be termed the multiplex character of verbal behaviour. The syntactic evidence for this is the participation by a given verb in different complexes, so that a number of verbs have to be labelled as e.g. Stative-Referential, Directive-Contrastive, Locative-Referential, Directive-Locative, etc. For example, an important group of Directive verbs may, equally, be Locative-oriented, while a substantial number of Locative verbs may be Directive-oriented, being associated, seemingly with progression through space (e.g. walk, run, etc.)
in contrast with non-Directive oriented locatives which to a significant extent are associated with dispersion over space (e.g. melt, float, etc.). While classification by surface behaviour is thus no simple trichotomy, some evidence has been presented to show that, given a complex-inventory for a simple verb, then that for the extended forms so far examined may be predicted with a high degree of probability.

The classification, however, reflects essentially a semantic ordering of reality, a given complex being a function of a particular component of meaning. At the same time, we have seen that a given verb may be associated with several meanings, some of which are linked to particular complexes and some of which are not. Are such verbs to be regarded as polysemous, or should one settle for a number of distinct but homonymous verbs? The difficulties of demarcating the boundaries between such homonymous verbs has been alluded to in Bolinger [1971], and will be apparent from the Swahili material presented here. Yet in the case of -tok-, such meanings as 'come from', 'leave', 'exude', 'protrude', 'belong to', etc. can plausibly be said to have some family resemblance, and it requires no great exercise of ingenuity to see a similar relationship between 'close', 'tie', 'jail', 'fasten', 'be constipated', etc. for -fung-. To argue for complete disparity here would be to lose sight of such affinities, which can more easily be kept in view if one suggests that they are all realizations of a hypothesized abstract meaning. Differences in meaning expressed as surface syntactic differences are then treated as functions of complex-membership on the one hand, and of the features and length of nominal series on the other. The limitations on nominal choice, for example, are commonly associated with specialization of meaning. Cases of surface ambiguity will undoubtedly occur,\textsuperscript{16} but there are a number of ways to resolve them. A greatly simplified sketch for -fung- is given in Appendix 2, below.

\textsuperscript{16}As, for instance with the English verb 'remind'. Thus:
He reminded me of Tom (i.e. he looked like Tom)
He reminded me of Tom (i.e. he made me remember something to do with Tom)
A number of articles have recently appeared devoted to particular kinds of verbs, i.e. those of hitting, breaking, judging, 'performative' verbs, etc. For example, Halliday [1970] recognizes that, as far as the ideational component of the grammar is concerned, the English clause shows three principal types: action, mental process and relation, and he suggests that "possibly all languages distinguish three such categories" [Halliday 1970:153-156]. I have not been concerned here with relational clauses but it is worth pausing to consider whether his findings for the other two types are corroborated by the data for Swahili. Mental process clauses are listed as expressing perception, reaction, cognition and verbalization, all of which may be expressed in Swahili by Directive complexes. Evidence about the frequency of the Passive, suggested by Halliday, is difficult to adduce in any satisfactory way for Swahili, but his comment that what is perceived or felt or thought may also be a metaphenomenon is more interesting. Verbs of cognition in Swahili e.g. 'believe', 'realize', 'think', 'see' (figurative), 'worry', etc. may be followed not by \( \text{NP}_2 \) but by \( S \), prefixed by some such item as \( \text{kuwa}, \text{kwamba} \), etc. Thus:

(191) nafikiri kwamba amekosea 'I think he's made a mistake'

as contrasted with:

(192) nafikiri mambo mengi 'I think many things'

(193) niliona kuwa mengi yamebadilika 'I saw that much had changed'

Some verbs of verbalization are also characterized in this way, e.g. 'say', but others are not, e.g. -ping- 'contradict'. In a verb like -amb- 'tell', which is typically characterized both by \( \text{NP}_2 \) and \( \text{NP}_3 \), only the latter can be replaced by \( S \). Thus:

(194) nilimwambia Ali kwamba mgeni atafika leo 'I told Ali that the guest would come today'

By contrast, with verbs of perception and reaction, e.g. 'look at', 'stare at', 'see' (literally), 'like', 'dislike', etc., such substitutions of \( \text{NP}_2 \) do not normally occur. A sentence such as:

(195) napenda kuwa afike 'I want him to come'
is definitely rather strained. I recognize the unsatisfactoriness of such frequency statements but, as so often, one is not faced with a clear contrast between occurrence and non-occurrence, but between more or less probable, more or less acceptable, which seems to demand some kind of probabilistic statement based on quantitative evidence.

Thus it cannot be said, within my framework, that mental process clauses contrast generally with action clauses in Swahili: rather it is the case that some verbs which connote mental processes and accept Directive-complexes, also display features which would justify the setting up of some sub-group. It is likely that other sub-groups could be established by invoking additional criteria. Thus, verbs with S or L(L_R) in their complex-inventory will typically not accept imperativization, in contrast to those with D(including L_D) in their inventories which will.

Yet an L-verb like -j- 'come' is anomalous in this respect, and for certain D-verbs of reaction e.g. 'like', 'want', 'dislike', 'feel', 'know', etc., a simple imperative is probably unacceptable in most varieties, though an imperative with object is perhaps marginally more acceptable. For some verbs, too, one would need to recognize homonymous forms to be marked plus or minus imperative.

Several points need to be made here. Firstly, the selection of test frames for syntactic environments e.g. what X did to Y as to ... is difficult to operate outside certain central cases and leads quickly towards a large area of indeterminancy. Secondly, the boundaries of sub-groups thus established tend to overlap and to complicate the overall picture considerably. Finally, it is not clear by what criteria different frames are to be selected (e.g. is imperativization a more significant phenomenon than passivization?).

As stated at the outset, the aim of this paper is essentially exploratory, seeking to expose the diversity of surface patterns which must be explicitly accounted for in any theoretical treatment of sentences of this type if simplistic theoretical formulations are to be avoided.
REFERENCES


APPENDIX 1

Summary of major complexes and combinations accepted by simple verbs.

A. S-complexes \([V(-op), -NP_2]\)

\((S)\)  
e.g. \(-pw\) 'ebb (of tide)', \(-ch\) 'dawn',  
\(\quad\) \(-chuj\) 'become filtered'

\((S_R)\)  
e.g. \(-chaka\) 'be worn out', \(-chok\) 'become tired'

\((S,L)\)  
e.g. \(-f\) 'die'

\((S_P)\)  
e.g. \(-fuk\) 'emit'

B. D-complexes \([V(top)]\)

\((D) [NP_1(+anim)]\)  
e.g. \(-log\) 'bewitch', \(-pos\) 'ask in marriage',  
\(\quad\) \(-kumbuk\) 'remember', \(-tand\) 'catch fish'  
\(\quad\) (dagaa)

\((D,D_P)\)  
e.g. \(-on\) 'see', \(-fich\) 'hide', \(-safish\) 'clean'

\((D_B) [V(+op, +anim)]\)  
e.g. \(-p\) 'give', \(-lip\) 'pay', \(-fany\) 'do',  
\(\quad\) \(-pak\) 'smear, daub', \(-paki\) 'load'

\((D,C_e)\)  
e.g. \(-l\) 'eat', \(-nyw\) 'drink', \(-va\) 'put on clothes', \(-pig\) 'hit',  
\(\quad\) \(-shik\) 'grasp'

\((D,D_R)\)  
e.g. \(-jeng\) 'build', \(-tazam\) 'look at',  
\(\quad\) \(-shik\) 'catch hold of', \(-pend\) 'like',  
\(\quad\) \(-chuki\) 'dislike'

\((D,D_B;D_R)\)  
e.g. \(-fung\) 'fasten'

\((D,L) [NP_1(+anim)]\)  
e.g. \(-vun\) 'harvest', \(-chung\) 'herd', \(-naw\) 'wash (esp. hands and face)', \(-som\) 'read',  
\(\quad\) \(-fyek\) 'clear land'

\((D_L)\)  
\(\{\)
\((D,C_e,L)\)  
e.g. \(-lim\) 'cultivate', \(-pi\) 'pass', \(-pand\) 'climb', \(-pand\) 'plant', \(-pik\) 'cook'

\((D,L,D_B)\)  
e.g. \(-ti\) 'put, place'

\((D,L,D_P)\)  
e.g. \(-vunj\) 'break'

The important division here is between those D-verbs which will accept an L-complex and those which will not. Acceptance of \(C_e\) patterns is subject to a much higher degree of variability among informants.
C. L-complexes \([V\text{-}op]\) Including C-complexes in all cases.

\((L)\) \(e.g.\) -pepe- 'wave', -vuj- 'leak', -pa- 'rise',
-ning'ini- 'sway', -yeyuk- 'melt' -zam-
'sink', -me- 'sprout', -ele- 'float',
-j- 'come', -to\(\uparrow-\) 'sink down, drown'

\((L_R)\) \(e.g.\) -tan\(\uparrow-\) 'spread over', -ja- 'become full',
-wak- 'burn, be burning'

\((L_R, L_P)\) \(e.g.\) -one- 'extend over', -kauk- 'become dry'

\((L, D)\) \(e.g.\) -ruk- 'jump on, over', -erd- 'go', -kimbi-
'run from, avoid'

\((L, D_E)\) \(e.g.\) -simam- 'stand up', -fik- 'arrive',
-tembe- 'walk, stroll', -tele\(\uparrow\)- 'descend',
-tamba- 'crawl'

The important division here is between those L-verbs which will accept
a D-complex and those that will not.
APPENDIX 2

-FUNG- 'ENCLOSE

-FUNG- 'close, tie'
  (D-verb)
NP₁ (+anim)
NP₂ (+anim)
  (+anim)/ - NP₃
  → Imprison,
    tie up
  (+anim)/ + NP₃
  → Fasten for
    someone

-FUNG- 'decide upon'
  (D-verb)
NP₁ (+anim)
NP₂ (-anim)
  → goli, bao

-FUNG- 'score'
  (D-verb)
NP₁ (+anim)
NP₂ (-anim)

-FUNG- 'fast'
  (stativized)
NP₂ (+anim)

-FUNG- 'be constipated'
  (stativized)
NP₁ (+anim)
NP₂ --> choo

-FUNG- 'set in'
  (stativized)
NP₁ (-anim)
NP₂ --> mvua,
    masika, etc.

NOTE: The slash '/' denotes 'in the environment of'.