The Discourse Function of Object Marking in Swahili

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1. Introduction

The Swahili object marker (OM) is a verbal prefix that agrees with an object of the verb. In Swahili there is no semantic or lexical class of objects for which object marking is obligatory, nor is there any class for which it is impossible. The numerous earlier studies of the object marker have discovered no hard and fast rules for its distribution. Its usage has been found to correlate with a number of factors, which we can divide into semantically/grammatically oriented factors, especially animacy (Wald 1979, Hyman and Duranti 1982, Keach 1995), and discourse-oriented factors such as topichood, specificity or "salience" (Givon 1976, Hyman and Duranti 1982, Allan 1983). But such correlations are invariably tendencies, not categorical facts.

Colloquially speaking, then, use of the Swahili OM is "optional". But such a characterization must be forever suspect: are we really observing unpredictable variation, or are we simply failing to take into account the right variable, or variables, that control the use of the OM? Until and unless we can have an understanding of the role of genuine optionality in language, we can only hope to settle the question by identifying a category (or several categories), grammatical or discourse-oriented, that the OM can be said to consistently denote.

Our study of the Swahili OM is undertaken in this spirit. We base our analysis on a corpus study of written Swahili texts selected from the Helsinki Corpus of Swahili. The extent of variability found in the use of the OM, and the fact that intuitions about when to object mark an NP are highly variable across speakers, led us to believe that the conditions determining the use of the OM must be pragmatic in nature. As we show in section 4.1, Prince's (1992) notion of *Hearer Status* is successful in defining conditions under which the OM is *not* used; but the converse does not hold, and the OM is unaccountably absent in many cases that meet the conditions we have identified. The relationship of animacy to object marking can then be considered an indirect effect of other factors that tend to correlate with animacy, such as salience in discourse.

The optionality of the OM also calls into question its typological status: is the Swahili OM an inflectional morpheme, or a separate, cliticized element? Morphologically, it appears between the verb root and the tense morpheme, suggesting that it must be inflectional; but we do not expect an inflectional category to be optional, and the Swahili OM has other properties that are more reminiscent of a pronoun than of an inflectional element. In section 5 we argue for a reanalysis of the Swahili verb that reconciles the morphological evidence with an analysis of the OM as a pronoun.

1.1. Methodology

Our corpus study was performed on material from the Helsinki Corpus of Swahili, an online corpus located on the Helsinki University Language Corpus Server, and administered by the Department of Asian and African Studies. The corpus is comprised of a collection of books written by authors who speak one of several different dialects of Swahili and come from different Swahili speaking countries. Swahili is not a first language for all of these writers, but all acquired it at an early age.

We coded a total of 23 randomly selected passages, each containing 31 sentences. Sentences with multiple objects were excluded from the data presented here. We coded for the following variables: presence of the object marker; animacy; whether a full-NP object is present; Information Status (in the sense of Prince 1992); and whether the object NP is referential or predicative.

Objects that were coded as animate included animals and humans, but excluded anything human that could not move; corpses, body parts, etc... The noun class of the object was ignored, for example if an animate was in a typically inanimate noun class, e.g., *ki-toto* 'class7-small child' (cf. the canonical *m-toto* 'class1-child'), the object was still coded as animate. The remainder of the objects were coded as inanimate.

Coding was based on our interpretation (as readers) of the passages in question. In particular, the objects of verbs without overt full-NP objects were deduced on the basis of our understanding of the text; and the hearer-status of verbs used in conversations, which is defined in terms of the hearer's knowledge, was assigned on the basis of a reader's understanding of what the hearer in the conversation knew or did not know.

Only sentences with transitive main verbs were coded. Verbs were considered transitive if they met any of the following criteria: first, if there was an overt object either following or preceding the verb; second, if there was an object marker in the verb; or third, if in English, the verb could *not* appear without an object (which would show that an object is not semantically required). For example the verb *eat* can be used intransitively in English, hence object-less uses of it were not coded. This selection method was intended to include in our study null objects that are not indicated by an agreement marker. It turns out that such cases are practically nonexistent in written Swahili (see section 2).

Sentences at discourse segment boundaries or the beginning of new discourse segments were not coded, since reference across discourse boundaries is not well-understood and creates additional difficulties. Because we were only interested in unmarked uses of the object marker, all syntactically specialized constructions; Object Relatives, Reflexives, Left-Dislocations, Topicalizations, and Right-Dislocations were excluded from the final analysis. Cases of Discourse Deixis (in the sense of Webber (1990), i.e., event-level reference) were also excluded.

The statistics we discuss are based on analysis of 312 coded sentences that met all of the above criteria. This count breaks down fairly evenly for animacy, object marking, and information status: 124 sentences were object marked, vs. 188 which were not; 144 objects were animate, and 168 were not; and 175 objects were coded as Hearer Old, vs. 137 that were Hearer New.

2.   The grammar of Swahili object marking

Swahili or KiSwahili is a Bantu language spoken in much of East Africa as a *lingua franca* and is the Mother Tongue along much of coastal Tanzania and Kenya as well as on several islands (Zanzibar, Pemba, Mafia, Lamu, etc.). According to Ethnologue (Grimes 1996), Swahili is spoken by some five million speakers as a first language, and by another thirty million as a second language.

Swahili verbs carry morphemes that agree with their subject and object in noun class. The agreement markers include information about number, person and noun class. The noun classes correspond to some degree to semantic classes; animate (class 1/2), tall-thin things (3/4), man-made things (7/8), loan words (9/10), etc... The basic structure of the Swahili verb is as follows:

(1) SM Tense (RM) (OM) VerbRoot (DS*) FinalVowel
   Ni– li–   ku– on–   a
   1sg Past   2sg see   Indic
   (SM = subject marker; RM = relative marker; DS = derivational suffixes)
   'I saw you.'

The "final vowel" can carry mood information: in the imperative and the subjunctive, a special final vowel appears and there is no tense morpheme. Reflexives are expressed through a reflexive morpheme, which appears in the Object Marker slot. Verbs can carry a number of derivational suffixes which must appear in a specific order after the verb root. The derivational suffixes include morphemes expressing causative, applicative, passive, reciprocal, and "stative" relations.

Unlike object marking, subject agreement is almost always mandatory in Swahili for finite verbs, i.e., all finite verbs carry a subject agreement morpheme.[1]

The object marker, on the other hand, is not always present. A transitive verb with a lexical object NP may or may not carry object agreement. Object marking is *possible* with every lexical class of objects,[2] but is not *required* by any lexical class of objects; some types of objects (such as proper names and animates) are object marked more frequently than others, but exceptions in either direction are quite common. The examples in (2) show overtly expressed animate objects with and without object marking; those in (3) show the same from inanimates. (In examples with more than one verb, the verb whose object marking is of interest is shown in boldface).

(2) a. *+animate +OM +FullNP*
       Ni-li-mw-uliza   Helena kama mtu   a-li-bisha   hodi.
       SM-Pst-OM-ask Helena if   person SM-Pst-knock knock.knock
       'I **asked** Helena if someone had knocked on the door.'
    b. *+animate –OM +FullNP*
       Wakati huu Rosa **a-li-hitaji**   watu   wa   ku-m-tuliza.
       time   this Rosa SM-Pst-need people PREP to-OM-comfort
       'At that time Rosa **needed** someone to care for her.'
    c. *+animate –OM +FullNP*
       A-li-uliza Bosi baada ya ku-ingia ndani, ...
       SM-T-ask boss after   of to-enter inside
       'After going inside, he **asked** the boss ...'
(3) a. *–animate –OM +FullNP*
       A-li-kata   kamba na   ku-kimbia.
       SM-Pst-cut rope   and Inf-run
       'It [the dog] **cut** the rope and ran free.'
    b. *–animate +OM +FullNP*
       Tuli a-li-ya-amini   maneno hayo.
       Tuli SM-Pst-OM-believe words   these
       'Tuli believed these words.'

The object marker can also denote an argument that is not expressed by a full NP:

(4) a. *+animate +OM –FullNP*
       Yule mtu a-li-kataa   ku-funuliwa. Albert **a-li-m-sikia**   a-ki-lia.
       that   man SM-Pst-refuse be-uncovered Albert SM-Pst-OM-hear SM-Ipf-cry
       'That man refused to show his face. Albert **heard him** crying.'

    b. *–animate +OM –FullNP*
        Maneno haya a-li-ya-sema   kwa sauti kubwa. Rosa **a-li-ya-sikia.**
        words   these SM-Pst-OM-say with voice big   Rosa SM-Pst-OM-hear
        'He said these words very loudly. Rosa heard them.'

Finally, it is possible for the object of a transitive verb not to be expressed overtly at all. We found this construction to be very rare in our corpus of written texts. In our data, we counted only two sentences as containing both a null object and no agreement (the breakdown of object marking and overt objects is given in Table 1); they both involved use of the verb *kushukuru* 'thank'. We believe that the object of this verb is simply optional (being used like "give thanks"), as it is in English verbs like *eat* or *ask,* which also occur with neither overt object nor agreement in Swahili. As Nicolle (1996) notes, however, the use of transitive verbs with neither OM nor an NP object is common in spoken Swahili. We reproduce two of his examples:

(5) a. A: Je, una watoto?
         'So, do you have children?'
      B: Bado.
         'Not yet.'
      A: **U-ta-pata.**
         you-Fut-get
         'You will get [them].'
    b. A: U-me-leta chakula?
         'Have you brought (the) food?'
      B: **Ni-me-leta** Bwana.
         I-Prf-bring sir
         'I have brought [it], sir.'

        A verb can agree either with its direct or its indirect object. Swahili, like all Bantu languages, does not grammatically mark the distinction between direct and indirect objects in any way. Swahili allows only one object marker per verb, while some Bantu languages, like Haya and Kivungo-Chaga, allow more. When there is more than one object, the OM, if present, is generally restricted to referring to a specific choice among the available objects, according to a complex set of considerations (cf. Bresnan and Moshi 1990, Rugemalira 1993).
        It should be added that there are some constructions that require or prohibit the use of the object marker. The OM is prohibited with passive verbs, as shown in example (6a). In written Swahili, the OM is obligatory when the relative marker is present, as in example (6b). Since our intent was to focus on the properties of syntactically optional uses of the OM, we excluded such constructions from our corpus study.

(6) a. Rosa **a-li-(*ki)-p-ew-a**   kitabu.
        Rosa SM-Pst-OM-give-Pass-Indic book
        'Rosa was given the book.'

Table 1: Object Marking × Presence of Full-NP Object

	+FullNP	–FullNP
+OM	65	59
–OM	186	2

      b. Kitabu **a-li-cho-ki-nunua**   ki-me-potea
          book   SM-P-REL-OM-buy SM-Perf-be.lost
          'The book that he bought has been lost.'

Proper names in Swahili tend to be object marked, even when inanimate. Keach (1995) claims that object-marking of proper names is obligatory, and provides example (7), which involves the mandatory object-marking of an inanimate object. (Sentence (7b) shows the unacceptability of animate marking for *Lucille*).

(7) a.   Ni-li-li-kamata "Lucille" (BB King's guitar).
         I-Pst-OM-grab Lucille
         'I grabbed Lucille.'
     b. * Ni-li-m-kamata "Lucille"
     c. * Ni-li-kamata "Lucille"   (from Keach 1995)

However, we found that our corpus contained uses of proper names that were not object marked, such as example (8a). We conclude that object marking of proper names is, in fact, optional.

(8) a. Rosa a-li-sikia   Stella a-ki-zungumza na   chakula mdomo-ni.
        Rosa SM-Pst-hear Stella SM-Ipf-talking with food   mouth-in
        'Rosa heard Stella talking with her mouth full of food'.

Investigations into object marking have long noticed several frequency effects, in particular, the high frequency of co-occurrence of the object marker with certain semantic classes of nouns. Animate objects in Swahili are object marked more often than inanimates, a fact that has motivated numerous analyses of the Swahili OM as a marker of animacy (Hinnebusch and Kirsner 1980, Vitale 1981, Hyman and Duranti 1982, Allan 1983, Keach 1995). Object marking has also been claimed to denote definiteness (Givon 1976, Hinnebusch and Kirsner 1980), stress (Vitale 1981), givenness or distinctiveness (Allan 1983), or a hierarchical combination of factors including theta role, combined person-animacy, and specificity (Hyman and Duranti 1982).

3. Information status

While discourse considerations are of interest in characterizing the uses of the OM, the notions we discussed above—definiteness, specificity, determinedness—correspond only loosely with the presence or absence of object marking. Our study found that Prince's (1992) notion of *Information status,* which we summarize in this section, is more directly correlated with the use or non-use of the OM.

Information status is a classification of what is known about an entity at the point of a particular mention of it in discourse. Prince (1992) defines the Information Status of an entity according to two criteria: whether the entity is *Hearer-Old,* that is, already known to the hearer,[3] and whether it is *Discourse Old,* i.e., whether it has been previously mentioned in the discourse. The possible combinations of these factors are shown in Table 2. (Since a hearer is assumed to remember what

Table 2: Information statuses, after Prince (1992)

	Discourse-new	**Discourse-old**
Hearer-new	Brand-New	—
Hearer-old	Unused	Evoked

has been said, there are no Discourse Old, Hearer New entities).

In the following examples, the indefinite *a kid* is understood as referring to an entity unfamiliar to the hearer before this point (a Brand-New entity), while the definite in (b) is understood as referring to a kid that the hearer already knows about, and is able to identify. (An Unused, or perhaps Evoked entity). Sentence (10) is another example involving an Unused entity.

(9)   a. In the park yesterday, *a kid* threw up on me.   (Brand New)
       b. In the park yesterday, *the kid* threw up on me.   (Evoked or Unused)
(10) *The President* returned to Washington today.   (Unused)

Prince defines the additional category of *Inferrables,* which are entities whose existence is inferable, on the basis of shared knowledge and beliefs, from Hearer-Old entities. Inferrables are technically Hearer-New and Discourse-New, but they have special properties, for example, cross-linguistically they are marked as definite (Gundel et al. 1993). Example (11b) contains the Inferrable *the door:* since we know that the Bastille is a building, we understand that there is an associated door even though no door has been mentioned. Example (11c) is ill-formed, since we have no reason to infer a trunk when the Bastille is mentioned.

(11)   a.   He passed by the door of the Bastille and *the door* was painted purple.
       b.   He passed by the Bastille and *the door* was painted purple.
       c.   #He passed by the Bastille and *the trunk* was painted purple.

4.   The corpus study
4.1.   Information status

Table 3 shows our findings concerning the relationship of information status with object marking. It can be seen that Brand New and Inferrable entities are rarely or never object marked, while Unused and Evoked entities are object marked in 50 per cent or more of the sentences studied. The categories *Unused* and *Evoked* have in common the property of being Hearer Old, in contrast to *Brand New* and *Inferrable,* which are Hearer New. In other words (abstracting away from the few exceptions), the OM can be used with Hearer Old, but not Hearer New entities; but it would be inappropriate to say that the OM *is* a marker of hearer-oldness, since only about 62% of the Hearer Old objects in our sample were object-marked by the verb. Rather, we have a negative constraint: unfamiliar objects may not be object-marked.

4.2.   Animacy

Space does not permit a review of the voluminous literature on the relationship of animacy and object marking. We mention Wald (1979) and Bentley (1994), who are among several authors that identify animacy as the primary motivation for object marking. Wald also notes that object marking an inanimate draws attention to it, and concludes that "discourse distinctiveness" as well as animacy and definiteness cause a speaker to use the OM. Bentley appeals to a generalization of the

Table 3: Object Marking × Information Status (all objects)

| | (counts) | | | | | (percentages) | | | |
| | HO | | HN | | | | HO | | HN | |
	UN	E	BN	IN			UN	E	BN	IN
+OM	7	109	2	6		% +OM	47	68	2	12
−OM	8	51	84	45		% −OM	53	32	98	88

OM from pure marker of animate agreement ("cross-reference") to contrastive or emphatic uses.

Our study examined the correlation of animacy with object marking. The following passage from our corpus illustrates the relevance of information status to the object marking of animates: the indefinite animate *mbuzi* 'goat' is Brand New in sentence (a), and is not object marked, but is Evoked in sentence (c) and is accordingly object-marked. The correlation is not perfect: the inanimate *kamba* 'rope' in (b), which happens to be Evoked, is not object marked.

(12) a. Mbwa a-li-ona   **mbuzi**.
       Dog   SM-Pst-see goat
       'The dog saw a goat.'
    b. A-li-kata   **kamba** na ku-kimbia.
       SM-Pst-cut rope   and to-run
       'It cut the rope and ran free.'
    c. A-li-**m**-rarua   **mbuzi** vipande vipande.
       SM-Pst-OM-tear.apart goat   part   part
       'It tore the goat to pieces.'

Table 4 shows the correlation of object marking with animacy; to facilitate comparison, Table 5 presents object marking vs. Hearer Status in the form of a two by two table. It can be seen that Hearer Status provides a stronger, though not overwhelmingly stronger, correlation. Neither animacy nor Hearer-Oldness guarantee object marking. Object marking of inanimates is rare, but more likely (12%) than that of Hearer New entities (6%).

We have suggested that the correlation of animacy with object marking may be an indirect effect of the different discourse roles typically taken by animates and inanimates. (Cf. Bentley 1994:47ff for a discussion of the connection between animacy and discourse role). If object marking was solely determined by information status, then animates and inanimates with the same information status would be equally likely to be object marked. Such is not the case, however: restricting our attention to Full-NP objects (in order to abstract from the effects of full-NP presence or absence), we found that Evoked animate objects are significantly more likely to be object marked than inanimates, as shown in Table 6. (The other categories were pretty close). It is clear that we are still short of a complete characterization of the impetus behind object marking.

4.3. Definiteness and the OM

A nearly universal claim about the object marker (adopted in some form by every source we reviewed) is that it is a marker of definiteness, or specificity. But on examination, characterizations along these lines turn out to be untenable. First of

Table 4: Object Marking × Animacy (all objects)

	animate	inanimate
+OM	104	20
−OM	40	148

Table 5: Object Marking × Hearer Status (all objects)

	Hearer-old	Hearer-new
+OM	116	8
−OM	59	129

Table 6: Object Marking × Animacy, Evoked full-NP objects

	Animate	Inanimate
+OM	43	7
−OM	13	36

all, only half the Evoked (and therefore definite) entities in our survey were actually marked (see Table 3).[4] But it is not even correct to say that object agreement is an *optional* marker of definiteness. "Definiteness" in this context is a semantic notion based on a generalization of syntactic definiteness. Since Swahili does not have determiners, we must characterize definiteness on the basis of semantic criteria alone, by analogy with other languages. Cross-linguistically, definites may be Evoked, Unused, of Inferrable in their Information Status (cf. Gundel et al. 1993, and section 3, and examples (9)). In particular, if the OM is a marker of definiteness it should be freely used with Inferrables; but as can be seen from Table 3, Inferrables are only rarely object marked. (12 per cent of Inferrables were object marked, compared to 66 per cent of all Hearer-Old entities).

Since object marking distinguishes Evoked from Inferrable entities but the category "definite" does not, we must conclude that the OM cannot be a marker of definiteness. In section 5 we will argue that the distribution of the OM is similar to the typical cross-linguistic distribution of pronouns.

4.4.   Full NP objects

As we showed earlier in Table 1, the OM is virtually obligatory when no overt full NP object is present. Since the OM itself can be considered to be the object, we do not talk of object drop, but of the presence or absence of an overt nominal object. This phenomenon is somewhat clarified when we consider the information status of the objects. As Table 7 shows, *all* non-NP sentences involve Evoked objects. (All but 2 of the –FullNP objects were object marked, as shown in Table 1). Although it is not surprising that Brand New objects must be explicitly named, the complete lack of non-FullNP Inferrable or Unused objects is unexpected. Clearly, this pattern is more restricted than would be expected by functional considerations alone.

If we accept that null objects (with no object marking) are nonexistent in written Swahili, we reach the following conclusions: the OM is restricted to the environments that allow pronominalization cross-linguistically, and in particular, Inferrable objects cannot be expressed through the OM. But the OM does not *replace* the full NP object, that it, the presence of the OM is not sufficient to license lack of a full NP object; for this more stringent conditions apply, namely, a non-overt NP object seems to be restricted to Evoked objects.

Since we wish to limit our attention to the *optional* uses of the OM, we provide in Table 8 a breakdown of information status by object marking for only those sentences that have overt full-NP objects. It can be seen that the results reported above do not change qualitatively. The proportion of object marked Hearer Old entities (Unused and Evoked) now becomes about fifty per cent for both types, while Hearer New entities are not normally object marked.

Table 7: Full NP objects × Information Status

	UN	E	BN	IN
+FullNP	15	99	86	51
–FullNP	0	61	0	0

Table 8: Object Marking × Information Status (full-NP objects)

	(counts) HO		HN			(percentages) HO		HN	
	UN	E	BN	IN		UN	E	BN	IN
+OM	7	50	2	6	% +OM	47	51	2	12
−OM	8	49	84	45	% −OM	53	49	98	88

5.   Inflection or pronoun?

Object agreement can, but need not, occur along with a full nominal object. For this reason the literature frequently refers to it as being a "pronoun" or "clitic" when no overt object is present, and an "agreement marker" when an object is also present (e.g., Ashton (1944), and Allan (1983) both characterize the OM in these terms). Other accounts variously argue that the OM is always a pronoun (Givon 1976, Hyman and Duranti 1982, Wald 1979); that it is always an agreement marker (Vitale 1981); or that it is one of the above for animate and yet another for inanimate objects (Keach 1995). It appears, however, that the duality implied by this nomenclature is terminological rather than real. It must be stressed that there is no *morphological* difference between object "pronouns" and "agreement markers" attached to the verb. In all cases, the object marker appears before the verb root, but following the subject and tense prefixes; and its form is always dependent on the noun class of the object, and never on whether a full NP object is present.

The distinction, then, is based on function, not form. The terms "pronoun" and "agreement" are used in a functional sense by a number of authors (Givon 1976, Wald 1979, Allan 1983), so that characterization of the OM as a pronoun is *by definition* dependent on the presence or absence of a full nominal object. Given such a definition, the statement that the OM is a "pronoun" when used alone and an "agreement marker" when used with a lexical object is tautological; the theoretical issue is whether the OM *can* be used as an "agreement marker," i.e., whether object marked "objects" are really in object position, rather than being in a dislocated position ("topics").

In this paper we use a morphological criterion. We are concerned with the distinction between inflectional morphemes, which are morphologically part of the verb (and which we consider as *not* being arguments of the verb), and pronouns, which we take to be separate lexical entities that may become cliticized onto a verb. Is the Swahili OM an inflectional morpheme, an incorporated pronoun, or sometimes one and sometimes the other?

Previous studies of object marking have reached varying conclusions. Givon (1976) considers the Swahili OM to have originated as a pronoun, its use later generalized to the agreement function, while Bentley (1994) argues that the Swahili OM is an inflectional element (a marker of animacy) that has acquired pronominal functions.

In this paper we will steer clear of issues of diachronic derivation; synchronically, however, there are several good reasons to treat the Swahili OM as an incorporated pronoun, rather than as an inflectional morpheme. From a syntactic point of view the OM is "optional," while morphosyntactic features are in principle marked obligatorily. (E.g., English nouns must be marked for number). Second, the OM can carry contrastive stress, as in example (13). Again, this is a property of words, not of pieces of inflection.

(13) Ni-li-*kí*-nunua   kitabu!
       SM-PAST-*OM*-buy book
       'I *did* buy it!'

Finally, in section 4.3 we showed that the OM, unlike markers of definiteness cross-linguistically, does not tend to be used with Inferrable entities. Pronouns also have certain cross-linguistic requirements on their use: they refer to entities that are already highly salient in the discourse. Heim's (1982:386) Prominence Condition notes that anaphoric pronouns should have antecedents that are "prominent" in status at that point in the discourse, generally by having been explicitly mentioned.[5] Inferrable entities, for the most part, cannot be pronominalized, as the ill-formedness of English example (14) shows.[6]

(14) I went to Mary's house. I knocked on *the door/#it.*

The Swahili OM is used only rarely with Inferrables, as Table 3 showed. If we interpret the data to mean that the OM is not *typically* used with Inferrables, we can summarize the properties of pronouns, definites, and the OM as in Table 9. It can be seen that the distribution of the Swahili OM resembles the typical cross-linguistic distribution of pronouns.

Table 9: Summary of the distribution of the OM

	BN	E	IN
Definites	−	+	+
Pronouns	−	+	−
OM	−	+	−

Consider now the possibility (suggested by the functional definition of "pronoun") that the OM is a pronoun when it occurs alone, and an inflectional affix when it co-occurs with an NP object. In its pronominal incarnation, the OM might be expected to be subject to the Prominence Condition as discussed above. As an agreement marker, on the other hand, the OM ought to be sensitive to syntactic and semantic properties of the agreed-with object, such as definiteness or animacy, but the object's place in the discourse should be irrelevant. But our data shows no evidence of such dual nature in the object marker. Table 8 shows that the OM is unlikely to occur with Inferrable entities even in the presence of an overt object.

On the other hand, the position of the OM argues in favor of analyzing it as inflection: The OM appears between the verb root and the tense and subject markers. If the OM is a cliticized pronoun, the principle of lexical integrity implies that the tense and subject agreement morphemes would have to be clitics as well. But since tense and subject marking are obligatory and hence invariably taken to be part of the verb, the position of the OM leads us to conclude that the object marker is an inflectional affix.

Although the OM behaves like a pronoun, the fact of its morphological location is too conspicuous to disregard. We were able to resolve this impasse by taking into account the work of Barrett-Keach (1986), who argued that the Swahili verb has a bipartite internal structure, with a break between the tense marker and the OM. Barrett-Keach's interest was in arguing for the existence of an *Aux* (or *Infl*) projection, but for our purposes the important point is that the posited structure implies that the OM is attached peripherally to the second part of the verb, and hence can be analyzed as a cliticized pronoun without violating the principle of lexical integrity. According to Barrett-Keach (1986), the cluster of subject marker plus tense forms an incorporated auxiliary, with a word break separating it from the OM, which is attached to the verb proper as illustrated here:

(15) Ni-li   + zi-andika.
     SM-Pst + OM-write
     'I wrote them (the letters).'

Barrett-Keach provides a couple of arguments for this analysis, of which the one we find more persuasive concerns the verbal stress pattern. Swahili has very regular penultimate primary stress; imperative forms, which do not include a tense or subject morpheme, do not take secondary stress even if they are four or more syllables long. (Example (16a)). Finite verbs, on the other hand, realize secondary stress on the penultimate syllable of the posited first half of the verb. (Example (16b)).

(16) a. Zi-andíke.
       OM-write-Imper
       'Write them! (the letters)'
     b. Nì-li-zi-andíka.
       SM-Pst-OM-write
       'I wrote them.'

Here we provide two additional arguments for the division of the Swahili verb. First, we can observe it directly in periphrastic remote perfective constructions such as (17a). In such constructions, the tense and subject marker appear on the separate auxiliary verb *-kwisha,* but the OM remains on the verb proper. (The construction alternates with a one-word, "incorporated" variant, shown in (17b)).

(17) a. A-me-kwisha ki-soma.
       SM-Perf-finish OM-read
       'She already read it (the book).'
     b. A-mesha-ki-soma.
       SM-RmPerf-OM-read
       'She already read it (the book).'

Yet another argument is provided by the fact that the minimal phonological word in Swahili is the binary foot. The constraint applies to sub-word components: A disyllabic verb like *-soma* 'read' forms its inflected forms by prefixation of the proper markers to the bare root of the verb. With monosyllabic verbs such as *-la* 'eat', indicative forms are formed by extending the verb root through prefixation of the infinitive marker *-ku-,* as in (18b); but if an object marker is present on a monosyllabic verb root, the OM serves to satisfy the minimal word requirement, and *-ku-* does not (and cannot) appear!

(18) a.   Ni-na-soma   kitabu.
          SM-Pres-read book
     b.   Ni-na-**ku-**la   chakula.
          SM-Pres-Inf-eat food
     c. * Ni-na-la   chakula.
           SM-Pres-eat food
     d.   Ni-na-**ki-**la   chakula.
          SM-Pres-OM-eat food

Once again, the presence of a break between the tense morpheme and the OM explains straightforwardly why the OM is "close" enough to the verb root to satisfy a constraint on the minimal word size, but the tense and subject morphemes are not. In fact, without this analysis the pattern shown in (18) is quite puzzling. Park's (forthcoming) treatment of the minimal word requirement in Swahili could provide no explanation whatsoever for the ability of the object marker to satisfy the requirement.

The existence of a word break in the middle of the Swahili verb removes the most serious argument for treating the OM as an inflectional morpheme. Accordingly, we conclude that the OM is an incorporated pronoun.

5.1.   The position of the object

The characterization of the OM has important implications for Swahili syntax. Given that the OM is a lexical pronoun, then any overt "object" of a verb carrying object agreement should not be an argument of the verb. This is the position adopted for *inanimate* objects by Keach (1995), who claims that while animate OM can either stand alone or (functioning as agreement) co-occur with a full-NP object noun, inanimate OM is always a "pronoun"; hence all overt inanimate objects of object-marked verbs are actually "topics". She writes:

> [OM used with animates is] ambiguous in encoding both the agreement and PI [Incorporated Pronoun] functions. Thus, an overt animate object NP may occupy the object position where it will agree with the verb. Or it may be a topic bound to the verb by OM which serves the PI function. On the other hand, an inanimate object does not display such flexibility. Only when it is a topic does it occur with OM which serves to bind the dislocated NP to the clause. Thus unlike animate object NP's, inanimate objects never agree with the verb. Inanimate OM is only PI.   (Keach 1995:114)

But a quick survey that we conducted found no evidence that all overt object-marked inanimate objects are dislocated. In example (19a), the object-marked *habari* is in the canonical position for an object.

(19) a. Wote   **wa-li-i-pokea**   habari hiyo kwa njia mbalimbali na kama
        everyone SM-Pst-OM-send news this with way various   and if
        wa-li-kuwa   na   maswali wa-li-ya-meza.
        SM-Pst-have with questions SM-Pst-OM-swallow
        'Everyone sent this news in various ways and if they had questions they
        swallowed them.'

Dislocated objects should generally appear at the periphery of the sentence, but need not do so, since another element may have subsequently been moved past them. Nevertheless, it is possible to investigate empirically whether such objects can appear in structural object position, using a statistical approach employed, *inter alia,* by Pintzuk and Kroch (1989) and Kroch (1994): Assuming that the frequency of dislocating *other* elements is independent of the presence of "topic" objects, we expect to find proportionately more phrase-peripheral inanimate objects of the "topic" type (that is, object-marked) than of the non-"topic" type (that is, not object-marked), since other movement should mask their peripherality in equal proportions. But in a quick survey of 78 overt objects in our corpus, we found that the object marked ones actually showed a somewhat *lower* incidence (16/42, or 38%) of being peripheral than the non-object-marked ones (16/36, or 44%).

It appears that Swahili allows the OM, which we are treating as an incorporated pronoun, to co-occur with a separate structural object. This pattern resembles well-known instances of argument doubling in certain incorporating languages, such as Tuscarora, which allow an incorporated "classifier" noun (*animal* in example (20a), from Rosen 1989), as well as an unincorporated object (*dog* in the example). We may also draw a parallel with the "clitic doubling" seen in several Indoeuropean languages (e.g., Spanish, Italian, and Greek).

(20) a. Ne-hra-**taskw**-ahkw-ha?   ha?   tsi:r.   (Tuscarora)
        du-M-**animal**-pick.up-SERIAL EMPH dog
        'He picks up domestic animals.'
     b. **Lo** vimos a Juan.   (Spanish)
        CL I-saw Juan

This discussion suggests that we could treat the object marker as a pronoun that exhausts the argument role of the verb, and any co-occurring full NP object as "doubling" the OM, in the way that objects in doubling romance languages double their clitics. But this analysis cannot be right: it suggests that whenever an OM is present, the default configuration would be *not* to have a corresponding object NP. In fact, as we saw in section 4.4, it is the absence of a full NP that is the restricted configuration, being only possible when the NP in question is Evoked; the presence of a full NP is possible with all types of information status, and must be considered the default configuration. We conclude that the default configuration consists of an optional incorporated pronoun (the OM, subject to the discourse conditions discussed), *plus* an NP object, which may be null (or absent, depending on one's theoretical framework) only when (a) an OM is present, and (b) the object refers to an Evoked entity.

6.   Conclusion

We have shown that the Swahili OM has a single grammatical role whether an NP object is overtly present or not. Typologically, the OM is an incorporated pronoun appearing as a proclitic to the second component of the Swahili verb; however, the OM does not exhaust the argument of the verb. We have demonstrated that use of the OM is sensitive to Information Status. Hearer New entities (Brand New or Inferrable) are almost never object marked, while Hearer Old entities may (but need not) be object marked. We summarize our conclusions as follows:

(21) **Conditions for object marking**
     a. Excepting grammatically marked uses, only Hearer Old or very salient entities allow object agreement.
     b. Only presupposed entities allow object agreement.
     c. Future use in discourse is not relevant.
(22) **Conditions on the omission of Full NP objects:**
     a. Only objects referring to Evoked entities can be omitted.
     b. (In written Swahili), NP objects can be omitted only when an object marker is present.

There are other discourse-oriented factors, in addition to those discussed in this paper, that appear to merit attention. It might be instructive to examine the relationship of object-marking to Gricean maxims (cf. Allan 1983), and to *speaker's empathy,* in the sense of Kuno (1976).

Notes

[1]   Nicolle (1996) called our attention to the fact that the SM is sometimes omitted with the "narrative" tense prefix *–ka,* when the subject is highly salient.
[2]   In addition to the object marker, Swahili also has an overt pronoun for animate object NPs. These pronouns are not usually used in combination with object marking, but it is possible (although marked) for them to be used in this way.

[3] More precisely, an entity is Hearer Old if the speaker *believes* the hearer to be already familiar with it.

Since hearer-status is defined in terms of (beliefs about) the hearer's knowledge, it is not always provably retrievable from the content of the speaker's words. In coding our corpus for hearer-status, we used the same standard that one uses when coding for any interpretive aspect of a text: our informal understanding, as intelligent readers, of what is going on at a particular point in a text. (In particular, of what the author assumed the reader to know or not know).

[4] This argument is also given by Allan (1983), who presents examples of non-use of the OM with objects that would be marked definite in English.

[5] There appear to be languages with pronouns that do not follow the canonical pattern with respect to Inferrable entities. For example in Indian English (Baldridge 1996), and in Hebrew (Ziv 1996), Inferrable entities can be pronominalized. Ziv gives the following example from Modern Hebrew:

(i) I went to the Post Office and he wouldn't sell me any stamps.

Baldridge (1996) provides the following fragment of narrative, in which the pronoun *him* is used to refer to the ticket conductor (an Inferrable entity, inferable from *bus*).

"In Bangalore when I tried to get into a bus, I tried to speak to **him** in English. I am a bit fair compared to them, so that guy thought I was some guy from north India. He said something in Hindi, which I didn't understand. What could I do? I talked to him in English and he was giving me lots of attitude. I couldn't purchase the ticket directly. Then I had to get somebody else to talk Kannada to him." [p. 103]

[6] Notoriously, there are a few exceptions to the Prominence Condition, in which a highly salient, previously unmentioned entity can be pronominalized:

(i) Bill threw up and Harry stepped in *it*.

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