STUDIES in AFRICAN LINGUISTICS

DECEMBER 1970
Volume 1, Number 3
STUDIES IN AFRICAN LINGUISTICS
Volume 1, Number 3
December, 1970

TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wm. E. Welmers</td>
<td>IGBO TONOLOGY</td>
<td>255</td>
</tr>
<tr>
<td>Talmy Givón</td>
<td>THE MAGICAL NUMBER TWO, BANTU PRONOUNS AND THE THEORY OF</td>
<td>279</td>
</tr>
<tr>
<td></td>
<td>NOMINALIZATION</td>
<td></td>
</tr>
<tr>
<td>Robert Hetzron</td>
<td>TOWARD AN AMHARIC CASE-GRAMMAR</td>
<td>301</td>
</tr>
</tbody>
</table>
IGBO TONOLOGY

Wm. E. Welmers
Department of Linguistics
University of California, Los Angeles

Igbo is a "terraced level" tone language. Its tonal system may be described in terms of two tonemes, high and low, plus a phoneme "downstep". In alternating high and low levels (each of which may continue for one to several syllables), each high level is automatically a little lower than the high level before the preceding low. The phoneme "downstep" occurs only between two high tones, and has the same lowering effect on the following high level that a low tone would have. (This is not necessarily to be construed as equating downstep with a deleted low tone. Such an identification is possible for some occurrences of downstep, but there is no direct evidence for it in all cases.)

Thus the first high level in a sequence between pauses is the highest. After either low or downstep, the next high level is slightly lower, and so on up to a pause. It is never possible to go from one non-low level up to a higher non-low level. Hence the analogy of terraces, but these terraces may sometimes be separated by a deep ditch (low tone).

In the following, all high tones are marked /\ over a vowel or syllabic nasal. All low tones are marked /\ before the first or only syllable to which it applies. This material, a section of a volume in preparation on African language structures, discusses problems arising from the fact that, while Igbo stems and many affixes have lexical tone, their lexical tone often undergoes alternation of some kind.

When different tones accompany the consonants and vowels of a number of morphemes in a language under different circumstances, it is not always immediately apparent whether it is morphophonemic alternation under definable conditions, or the presence of a tonally realized morpheme, that is responsible for the variation. In some cases, both
may be present. Igbo provides some interesting complications in the identification and interlocking functions of morphotonemic alternations and tonally realized morphemes; a few details restricted to relatively uncommon constructions or to individual words with a unique structure are omitted in this treatment, but all of the relevant principles of analysis and interpretation are amply illustrated. It is recognized that there are dialect differences in some details, but the statements made here represent patterns that are known to be widespread. For other dialects, an occasional statement would have to be omitted, added, or modified, or the order in which some statements are made would have to be changed. A few conspicuous dialect differences are noted. This section is confined to a few details of tonal identification and behavior which can then be assumed in the remainder of the discussion.

a. First, there is a set of independent pronominal forms which in most respects function as nouns. Three of these are monosyllabic, and in their underlying structure are interpreted as having initial downstep followed by high tone. The initial downstep is, in all probability, historically derived from a vowel with low tone. The six forms are:

(1)  *

<table>
<thead>
<tr>
<th>Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ọmụ</td>
<td>'I'</td>
</tr>
<tr>
<td>ọnyị</td>
<td>'we'</td>
</tr>
<tr>
<td>ọgị</td>
<td>'you (sg.)'</td>
</tr>
<tr>
<td>ụnụ</td>
<td>'you (pl.)'</td>
</tr>
<tr>
<td>ọya</td>
<td>'he, she, it'</td>
</tr>
<tr>
<td>ọhá</td>
<td>'they'</td>
</tr>
</tbody>
</table>

Downstep with the monosyllabic forms is shown in the following:

(2)  ọ bùrù 'ọya ụrara'  
    'if it is he (who) came'

These forms are also used as possessives. Downstep with the monosyllabic forms is again attested; after low tone, of course, downstep is automatically deleted. E.g.

(3)  ọwụ 'ọya'  
    'his goat'  
    ọlọ ọya  
    'his house'

b. As verbal objects, the same forms are used except for the first person singular, which is a syllabic /m/. This and the other three monosyllabic forms have downstep-high after high, but in the particular
dialect under consideration have the alternant tone low after low. E.g.:

(4) ꞔ kpó 'ǹ

'if he calls me'

ophile under consideration have the alternant tone low after low. E.g.:

(4) ꞔ kpó 'ǹ

'if he calls me'

c. As verbal subjects, the plural forms listed above are again used. There are, however, special singular subject pronouns. The second person form is /i/ or /f/ (the choice depending on vowel harmony). The third person form is /ọ/ or /ọ/. In some constructions, the first person form is /ǹ/. In other constructions, the first person form consists of /ọ/ or /ọ/ before the verb plus a syllabic /m/ after the verb; the tone of the latter is downstep-high after high, but low after low. E.g.:

(5) i mé 'yá

'if you do it'

ọ bọ lọ

'it's a pot'

ǹ mé 'ọ

'if I do it'

é 'mélé 'ǹ yá

'I have done it'

è húrù 'ǹ yá

'I saw him'

Perhaps to be identified with the vowel component of the first person form above is an impersonal subject pronoun, /ọ/ or /ọ/.

d. In negative constructions, with subjects other than the above singular pronouns, the verb form has a vowel prefix. Before this prefix, the plural subject pronouns listed above function as nouns and undergo no alternation. With singular subject pronouns, however, the verb form has no prefix, but the pronouns have low tone replacing their inherent high tone. This is interpreted as a morpheme with the meaning 'unreal'. E.g.:

(6) ónù á'byágh

'you didn't come'

ọ byá'gh

'he didn't come'

In affirmative verbal constructions, the same replace is used with both singular and plural subject pronouns. Such combinations are usually translated as, and have generally been described as, questions.

After a noun subject, the third person form /ọ/ or /ọ/ is required. E.g.:
The meaning 'unreal' is here more specifically 'hypothetical'. The identification of the replaceive here with that in negatives is possible because there are no negative questions in Igbo, but there are common circumlocutions such as the equivalent of 'I think he didn't go', which expects a response. By analogy, the above are interpreted as having the more basic meaning 'I suppose he went to market' etc. As in English, such hypothetical statements expect a response. (In English, speakers of Igbo sometimes say, e.g., 'I think you are going to go to Aba tomorrow', where a native speaker of English would invariably use a question.)

e. A few monosyllabic morphemes are interpreted as being inherently toneless. These include four suffixes which repeat the tone of the preceding syllable, high or low: the negative imperative suffix /-a/, the negative suffix /-gh/ , the applicative verbal extension which consists of /-r/ plus a repetition of the preceding vowel, and the additive verbal extension /-kwa/. These all follow the pattern illustrated in the following:

(8) Ọmọla yá  
    Ọzala yá  
    'don't do it'  
    'don't sweep it'  

A few other suffixes found in verb forms could also be considered toneless, but they appear only after high or only after low tone, so that their high or low tone can equally well be considered an inherent part of the suffixes themselves.

The remaining toneless morpheme is a sort of preposition, the underlying form of which is /na/. Before a consonant (which is extremely rare) or a syllabic nasal, this morpheme takes the tone of the following syllable. Before a vowel, its vowel is elided, as indicated by an apostrophe in the transcription used here. E.g.:
Significantly, the presence of this morpheme, even when it consists of a consonant only, inhibits in what follows the operation of any morphophonemic alternation conditioned by what precedes.

f. One morphophonemic alternation must be included here, prior to the three alternations described in the following section, which have a different type of conditioning. Before any modifier except a monosyllabic form with the inherent tone downstep-high, in nouns which independently have the tones high-downstep-high, the downstep is deleted. The exception, though included in the illustrations below, is covered by the first alternation stated in the following section; in many dialects, as shown by the parenthesized alternant below, this exception does not apply. That the crucial environment here is a modifier is shown by the fact that this alternation does not take place before a verb. E.g., from /'gô/ 'money, shilling':

(10) á côrô m ô'gô
ô'gô dl ' mâ'má
ô'gô 'ônô
ô'gô 'ôstô
ô'gô yå (ôgô 'yå)

'I want money'
'money is fine'
'your (pl.) money'
'three shillings'
'his money'

2. It seems most convenient next to describe three morphophonemic alternations which are largely conditioned by the preceding tonal environment. The derivations of the conditioning environments are assumed here, but will be explicitly stated in the following section, after which a number of apparent or real exceptions will be accounted for. The alternations described in this section will be referred to as A1, A2, and A3.

a. A1: After one or more high tones preceded by a downstep, in forms with an initial vowel or nasal whose first two tones are low-high,
initial low tone has the alternant high. In this environment, therefore, forms whose first two tones are independently low-high have the same tones as forms whose first two tones are independently high-high. Both are illustrated in the following:

(11) ṭɔ̀bá 'Aba (town)': ō ɡá'ghf ṭɔ̀bá
He didn't go to Aba'

ɛmánu 'oil': ō ṣɔ̀rò ḣ'zdà ɛmánu
'he wants to buy oil'

ɛnù 'meat': ō ṣɔ̀rò ḣ'zdà ɛnù
'he wants to buy meat'

A form of this alternation applies in monosyllabic forms with the inherent tone downstep-high; the alternation takes the form of deleting the downstep (compare the end of the preceding section). E.g.:

(12) ḣzdà 'jí 'buy yams': ō ḣzdà'ághf jí
'he didn't buy yams'

mè 'yá 'do it': ō ṣɔ̀rò ḣ'mẹ yá
'he wants to do it'

ɛnù 'gí 'your meat': ō'go gi
'your money'

b. A2: After high tone when no downstep precedes, also in forms whose first two tones are independently low-high, initial low tone has the alternant downstep-high. A modification of this alternation appears only in forms with more than two syllables and an initial nasal; in such forms, initial low tone has the alternant high and downstep precedes the second syllable — that is, an initial nasal delays the downstep for one syllable. The fourth example in the following illustrates this modification:

(13) ṣkwá 'egg' wètá 'ṣkwá
'bring eggs'

ọgbá 'wrestling' hà nà ọgbá 'ọgbá
'they're wrestling'

ụfọdụ 'some' wètá 'ụfọdụ
'bring some'
| ñmánú | 'oil'     | wàtá ñ'mánú  | 'bring oil' |
| ìbά | 'Aba (town)' | ónyé 'ìbά  | 'a person from Aba' |
| átó | 'three'  | àkwá 'átó  | 'three eggs' |
| ònù àmòóà 'yá  | ànyì [àmòóà] 'yá | 'you (pl.) have done it' | 'we have done it' |

In the last of these, the downstep of /'yá/ cannot be deleted by the Al rule, since the downstep of the preceding word is derived by A2 after Al has ceased to apply.

c. A3: With the syntactic restrictions stated below, also after high tone when no downstep precedes, in nouns with two syllables only and the tones high-high, the second high tone has the alternate downstep-high. This alternation applies to a noun used by itself (i.e., without a modifier after it) immediately after a verb, and to the second noun in a noun-noun phrase. It does not apply, although A2 does, in the second of two nouns after a verb if the nouns do not belong to the same phrase; the conditioning for A2 is phonologic, while the conditioning for A3 is in part syntactic. Examples of this alternation and its restriction to two-syllable nouns are:

(14) ónýú 'meat' : wàtá ó'nýú 'bring meat'
    ówú 'goat'    óný ó'wú 'goat meat'
    ósísf 'plant' ñkpýrú ósísf 'fruit, nut, seed'

This alternation applies only in nouns; in the following, /ýcà/ 'light-colored' is an adjective, which indicates the category or class to which a preceding noun belongs [Welmers and Welmers 1969]:

(15) ónyé ýcà 'a Caucasian'
Nor does A3 apply if a noun is followed by a modifier, as /éwú/ in the first two of the following: by contrast, in the third, /éwú/ is the second noun in a noun-noun phrase, and the demonstrative modifies the entire phrase, not /éwú/ alone:

(16)  kpütá éwú 'áty 'bring three goats'
   lsj éwú áhù 'the head of that goat'
   lsj é'wú áhù 'that goat head'

Finally, A3 does not apply in the second of two nouns, not in the same phrase, after a verb. As shown in the third and the last of the following, however, A2 does apply in this environment:

(17)  ácf 'yesterday, tomorrow'
       : kpütá éwú ácf 'bring a goat tomorrow'
       (cf.: gá ácf 'go tomorrow')
   ányú 'meat'
       : ó sìlrl ányif ányú 'she cooked meat for us,'
   àkwá 'eggs'
       : ó sìlrl ányif 'ákwá 'she cooked eggs for us,'
   fró 'hatred'
       : há hýrù ányif fró 'they hate us'
       (lit. 'they see us hatred')
   áhù 'body'
       : há mèrìry ányif 'áhù 'they hurt us'
       (lit. 'they spoiled us body')

d. An instance was cited earlier in which A1 cannot apply if the phonologic environment which otherwise conditions it is derived by the application of A2. In the environment just discussed, however -- in the second of two nouns, not in the same phrase, after a verb -- A1 applies after itself, after A2, or after A3. The rationale of this appears to be that the verb and the first noun are treated as a unit; any downstep followed by high tones in the tonal unit, whether it is in the verb before the first noun, or in the first noun as a result of A2 or A3, conditions A1 in the second noun. This is confirmed by the
first of the following examples, in which A1 also applies after a high tone which is not the result of any alternation; the conditioning factor is the downstep in the preceding verb:

(18a) ɗwù 'goat', ῤhù 'body', no alternation and A1:
   há Ḇ'mérùgh[ ɗwù ῤhù 'they didn't hurt a goat'
(18b) 仟y[ (l pl), ῤhù 'body', A1 and A1:
   há Ḇ'mérùgh[ 仟y[ 仟hù 'they didn't hurt us'
(18c) 仟y[ (l pl), ῤhù 'body', A2 and A1:
   há nà Ḇ'mérù '仟y[ 仟hù 'they're hurting us'
(18d) ɗwù 'goat', 仟hù 'body', A3 and A1:
   há nà Ḇ'mérù ɗ'wù 仟hù 'they're hurting a goat'

E. In other environments than the above, A2 applies after itself and after A3. This recursive application of A2 is illustrated by the following, in which the alternation with the second word must precede the alternation with the third:

(19a) 仟tò 'three', 仟y[ (l pl), A2 and A2:
   ɗwù 仟tò '仟y[ 'our three goats'
(19b) ɗwù 'goat', 仟y[ (l pl), A3 and A2:
   仟y[ ɗ'wù '仟y[ 'our goat meat'

The following example shows the same surface realization of tonal alternations, but is derived differently; the alternation with the third word precedes, and is then unaffected by, the alternation with the second:

(20) ikó 'cup', 仟y[ (l pl):
   wẹtά ikó '仟y[ 'bring our cups'

In the following, A2 appears four times; the order of the four applications is 3-4-2-1:

(21) 仟y[ 仟wètálá ikó '仟tò '仟y[ 'we have brought our three cups'

A contrast between the sequence of A3-A1 and A3-A2 is shown in the following. A3 appears in /仟mányá ŋ'kwù/ 'nut palm wine'; /仟bý/ is a
noun meaning 'the first time', here (n)ever':

(22a) ánýí á'ŋ'ýbèghí mmánýá ɔ'kwú ́íbú
      'we've never drunk nut palm wine'

(22b) ánýí á'ŋ'ýbèghí mmánýá ɔ'kwú 'ánýí
      'we haven't drunk our nut palm wine'

f. For some speakers, peculiarly, in a monosyllabic modifier after a
noun (but not in a verbal object), A1 reappears after A2; further, A3
applies in a noun before a monosyllabic modifier, and then A1 reappears.
(As one might guess from this and other statements, these pronoun forms
are perhaps the prime nuisance in Igbo when working with a number of
speakers.) E.g.:

(23a) 1kó 'yá 'his cup'  wètá 'íkó ́yá
      'bring his cup'
      (cf.: ánýí 'éwètálá 'yá 'we have brought it')

(23b) ánụ 'yá 'his meat'  :  wètá á'nú ́yá
      'bring his meat'

3.

The conditioning environments for the alternations stated in the
preceding section may appear in nouns, numerals, verbs, and very occa-
sionally other words. For all forms other than verbs, these are lexi-
cal tones or tones derived by the alternations themselves. For verbs,
it is necessary, before applying the above alternations, to derive the
tones of bases and constructions. Such derivations, in so far as they
present no problems in the application of the alternations stated, are
outlined in this section.

a. It is first necessary to make statements deriving the tones of verb
bases. Verb stems are monosyllabic, and may have high or low tone;
a single verb stem may constitute a verb base. In a base of more than
one syllable, the first syllable must be a verb stem; one or occasionally

---

This supplements Welmers [1970] in which the derivation of tones
is not discussed.
two stems may follow, and morphemes of a different class, base form-
atives, may also be included. The inherent tones of base formatives
are identified by comparing their tonal behavior with that of stems
which may be used independently. Bases of two and three syllables
are common, and some longer bases are recorded. The tones of a verb
base are determined by the independent (lexical) tones of the first
two syllables. If the tones of the first two syllables are both in-
dependently high, the base has high tone throughout. If their tones
are independently low and high, in that order, the first syllable of
the base has low tone, and all following syllables have high. If
their tones are independently high and low, or low and low, the base
has high tone with the first syllable, low with the second, and high
with all syllables following. Examples of these derivations are:

(24a) mè 'do, make', cf 'be stopped up' : mècf 'close'
(24b) mècf (from above), sf (indicating action done to completion
or to a stopping place): mècfs 'tie up, fasten up
completely'
(24c) kwà 'push', cf 'be stopped up' : kwàcf 'push shut'
(24d) gá 'go', fè 'cross, pass over': gáfè 'go across'
(24e) wè 'take, pick up', pù 'exit' : wépù 'remove'
(24f) wépù (from above), tā (indicating action toward or for the
speaker or subject) : wépùtā 'bring out'

b. Statements may now be made deriving certain verbal constructions.
There is no construction in which the verb base is used by itself; some
other morpheme is always present, though in some cases with a zero allo-
morph. The following numbered statements also establish a number of
tonally realized morphemes in verbal constructions.

(i) A morpheme consisting of low replacing stem tone occurs with
a limited number of verb stems, marking a "stative" construction. Two
stems which may be used for illustrative purposes are /d!/ 'be described
as; be located at (of inanimates, sometimes non-human animates)' and
/nô/ 'sit, be located at (of humans, usually non-human animates)'. E.g.
(25a) ọ dì ñ'èbè à  'it is here'
(25b) ọ ṣọ ñ'èbè à  'he/she is here'

(2) A "factative" construction includes a replacive which can be identified with that of the stative. For all bases except those which begin with high-low (see above), low replaces stem tone throughout the base; for bases with initial high-low, the replacive has the alternant downstep-high with the first syllable and low with all following syllables; the downstep is, of course, overt only after a high tone. In addition to the tonal replacive, the factative has a suffix consisting of /r/ plus a repetition of the preceding vowel, also with low tone. E.g., from some of the bases cited above:

(26a) ọ ɡàrà ˈhyá  'he went to market'
(26b) ọ wàrè ˈsfsí  'he took a stick'
(26c) ọ mìcìrì ˈjɔ̀  'he shut the door'
(26d) ọ kwàcìrì ˈjɔ̀  'he pushed the door shut'
(26e) ọ 'wèpùtàrà ˈnmà  'he brought out a knife'

(3) An infinitive is formed by a prefix, with a morphotonemic alternation in one type of base. The prefix includes a downstep, which is of course deleted before low tone; it is /ɪ/-/ or /ɪ'-. After a low tone in the base, all following tones have the alternant low. Examples of infinitive derivation are:

(27a) rí : ˈrí
(27b) zà : ˈzà
(27c) mécí : ˈméci
(27d) kwàcí : ˈkwàci
(27e) wèpùtà : ˈwèpùtà

(4) A negative imperative has a prefix /á'-/ or /á'-./, the same morphotonemic alternation in the base, and a toneless suffix /-là/. For the bases used above, negative imperatives are as follows; Al applies in the object in the first and third:
(28a) ọ'riflà yà  
(28b) àzàlè yà  
(28c) ọ'mécilà yà  
(28d) àkwàcilà yà  
(28e) ọ'wàpùtàlà yà

'don't eat it'  
'don't sweep it'  
'don't close it'  
'don't push it shut'  
'don't bring it out'

(5) Next to be considered is a relative construction in which the antecedent noun is the subject of the relative (as in 'the man who came', not 'the man I saw'). Many speakers of Igbo form affirmative relatives only from the stative and factative constructions, and these are the only types considered here. Two tonal replacements must be recognized in such relatives. First, downstep-high replaces a final low tone in the antecedent. Second, in statives and in those factatives which have only low tones, there is an initial downstep, and high tone replaces low throughout the form; in factatives which begin with downstep-high-low (all of which have at least three syllables), there is no alternation in the first two syllables, but high replaces low in all following syllables. (Such high tones appear also in the base, but here they are the product of two successive replacements: low replaces high in the base to form the factative, and then high replaces low in the factative to form the relative.) Examples of relative derivation are:

(29a) ñwàták[r] byàrà.  
(29b) ñwàánh[r] mècil í úzó.  
(29c) ñnù wàpùtàrà yà.

'ñwàták[r] byàrà'  
'ñwàánh[r] mècil í úzó'  
'ñnù wàpùtàrà yà'

'A child came.'  
'A woman shut the door.'  
'You (pl.) brought it out.'

Relatives are strikingly similar to, and in all probability historically related to, an associative construction which is discussed later. Because of the ways in which tonal alternations are conditioned, however, it is necessary to separate them.

(6) In a number of constructions, there is a suffix which, after
most monosyllabic bases, longer bases ending with /i/ or /u/, and a few other bases which must be individually listed, is a vowel with high tone; the identity of the vowel need not concern us here. After some monosyllabic bases, there is an allomorph consisting of /r/ plus a repetition of the preceding vowel, also with high tone. After some monosyllabic bases, and after most longer bases ending with vowels other than /i/ or /u/, there is a zero allomorph of this suffix. Before this suffix, including its zero allomorph, bases have their inherent tones as described above in all constructions but one. E.g.:

(30a) ṭ byərà rřé 'yá 'he came and ate it'
(30b) ṭ byərà zàá 'yá 'she came and swept it'
(30c) ṭ màcfé 'yá, ṭ dì ám'má 'if he closes it, fine'
(30d) kà ṭ kwàcfé 'yá 'he should push it shut'
(30e) kà àny[ wépûtá 'yá 'let's bring it out'

(7) The imperative uses this suffix, but also includes a morpheme of tonal replacement. Except in bases which begin with high-low, low replaces stem tone with the first (or only) syllable of the base. For bases beginning with high-low, it is entirely reasonable to suppose that the replacive inherently has the alternant downstep before the base; this is not recoverable, however, since nothing can precede an imperative in the same clause. E.g.:

(31a) rf : rřé 'yá 'eat it'
(31b) zà : zàá 'yá 'sweep it'
(31c) màcf : màcfé 'yá 'close it'
(31d) kwàcf : kwàcfé 'yá 'push it shut'
(31e) wépût : wépûtá 'yá 'bring it out'

A special morphotonemic alternation involving an imperative from a base with two syllables and the tones high-low will be noted in the following section.

What the foregoing statements have done is to establish particular instances, other than lexical, of the conditioning environments for the alternations stated in the preceding section. Low tone in some verbal
constructions has been shown to be a morpheme of tonal replacement (1, 2, 7 above); this is irrelevant to the morphotonemic alternations, but, in (1) and (2), prerequisite to the derivation of relatives. With the appropriate types of bases, downstep followed by all high tones in infinitives, negative imperatives, and relatives conditions A1 (3, 4, 5 above). The final high tone of a suffix in a number of verbal constructions conditions A2 and A3.

4.

The statements concerning morphotonemic alternations in 2. above were intentionally somewhat oversimplified in the interests of clarity. Special exceptions to them remain to be stated, and a few statements of more restricted alternations must be added.

a. (1) Apart from the negative imperative described above, there is only one negative construction in Igbo. Downstep is a characteristic of this negative construction, but with a unique morphotonemic alternation. After subjects other than singular pronouns, there is a prefix /ə'/: or /ə/— with automatic deletion of downstep before low, of course. After low tone in the base, all following tones have the alternant low. There is also a suffix, /-gh/:, which is toneless. Examples of this negative construction are:

(32a) ãny[ə'rhgh] hrf 'we didn't eat (food)'
(32b) há áẓágh] ụjọ 'they didn't sweep the house'
(32c) Ọkọvè ə'máci]gh] ụzọ 'Okoye didn't shut the door'
(32d) há ákwàc]gh] ụzọ 'they didn't push the door shut'
(32e) ụnù ə'wép'f]gh] yà 'you (pl.) didn't bring it out'

After a singular pronoun subject, which has low tone in the negative, the prefix has an allomorph with no vowel, but with its high tone and downstep replacing the first tone of the verb base; if that tone was low, all following syllables in the form have low tone — in the second and fourth of the following examples, the second syllable of the verb form had already acquired its low tone by the rule above, before the preceding low was replaced by high according to this rule. Counterparts
of the above with singular subject pronouns are:

(33a) ṭ ꜓r' ꜓hꜩ ꜓'ꜩ ꜓rꜩ ꜓' 'he didn't eat'
(33b) ṭ ꜓zá ꜓hꜩ ꜓á ꜓' 'she didn't sweep the house'
(33c) ṭ ꜓m'é ꜓cɪ ꜓hꜩ ꜓' ꜓ţ ꜓' 'I didn't shut the door'
(33d) ṭ ꜓k’wá ꜓cɪ ꜓hꜩ ꜓m ꜓ţ ꜓' 'I didn't push the door shut'
(33e) ṭ ꜓w’p’ ꜓tát ᜓhꜩ ꜓yá ꜓' 'you didn't bring it out'

Downstep followed by one or more high tones in the negative conditions A1, as expected, except in one type of form. Before stating the exception, it is necessary to describe a "verbal noun". A verbal noun, which in most respects functions like other nouns, has a prefix which is segmentally /a-/ or /e-/, with low tone before high in the first syllable of the base, and high tone before low. The verbal noun is used after the stative of a verb /ná/ (which is not independently used, but to which a meaning may be assigned something like 'be at, be with') to form an "incompletive", and after the stative of /gá/ 'go' to form a "future". E.g.:

(34a) ṭ ꜓ná ꜓’r ꜓f ꜓’r ꜓f ꜓' 'he is eating'
(34b) ṭ ꜓gá ꜓á ꜓zá ꜓á ꜓' 'she's going to sweep the house'
(34c) ṭ ꜓gá ꜓m ꜓’m’ ꜓c’ ꜓ţ ꜓' 'I'm going to shut the door'
(34d) ṭ ꜓gá ꜓m ꜓’k’wá ꜓c’ ꜓yá ꜓' 'I'm going to push it shut'
(34e) ṭ ꜓ná ꜓m ꜓’w’p’ ꜓tát ꜓yá ꜓' 'I'm bringing it out'

In the negative of the incompletive and future, the formation described above applies to /ná/ and /gá/. This yields forms which have a downstep followed by one or two high tones. According to A1, it would have the alternant high. An exception must be added to the statement for A1: it does not apply in a verbal noun after a negative. E.g.:

(35a) ṭ ꜓há ꜓’g’u’ ꜓’g’h’ ꜓’r’ ꜓’r’ ꜓' 'they're not going to eat'
(35b) ṭ ꜓ná ꜓’g’h’ ꜓’w’p’ ꜓tát ꜓’yá ꜓' 'he's not bringing it out'

b. (2) A similar exception must be incorporated into the statement of A2. A verbal noun may occur after a "consecutive" construction with /ná/, in which /ná/ has the zero allomorph of the previously
described suffix with high tone. According to A2, it would be expected that low tone in the verbal noun prefix would have the alternant down-step-high; in this environment, however, the alternation does not apply. E.g., in the next-to-last word of the following:

(36) ̀há ̀nà ̀èr̀f ̀'̀rf, ̀ná ̀ạńýu ̀má́nýá
    'they're eating (food) and drinking (booze)'

In spite of the above, it cannot be said that the verbal noun prefix before a high tone is an invariable low tone; A1 applies regularly after a relative:

(37) ̀ônýá 'ná ̀èr̀f ̀'̀rf
    'the person who is eating'

c. (3) In a "completive" construction, after a subject other than a singular pronoun, there is also a prefix /à/- or /à-/. After high tone, the tone of this prefix has the alternant downstep-high according to A2. After a singular pronoun subject, the vowel of the prefix does not appear; the allomorph of the prefix is downstep alone. With appropriate verbal bases, these statements yield forms which have a downstep followed by all high tones, which is otherwise the conditioning environment for A1. However, this allomorphic downstep is itself the product of A2, with a statement added here deleting the vowel after singular pronouns, so that A1 can no longer apply. After such completive forms, A2 and A3 apply. E.g., with objects /àk̀wá/ 'egg' and /'̀rf/ 'food':

(38a) ̀ùnù ̀èr̀félá ̀'̀rf
    'you (pl.) have eaten'
(38b) ̀àńý/ 'èr̀félá ̀'̀rwá
    'we have eaten eggs'
(38c) ̀'̀rfélá ̀'̀rf
    'he has eaten'

d. (4) A morpheme with the meaning "associative" is recognized as present in phrases such as /'yì̦ţī̦ 'àn̂yí/ 'our house', which is /'yì̦ţí̦/ 'house' associated with /'àn̂yí/ 'us'. The tones of this and certain other types of phrases are not accounted for by the morphotonemic alternations stated so far. Nor can they be directly accounted for by other alternations, because the same independent tones do not have alternants in a sequence of noun plus numeral, as /'yì̦ţí̦ ̀ạ̀f̄/ 'three houses'. 
It might, of course, be suggested that morphologic conditioning is present; the alternation takes place if the second word in the phrase is a noun, but not if it is a numeral. However, a numeral may also participate in the associative construction. There is a minimal and morphemic contrast between /กกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกกก环节でケンス LABEL は新しいフレームワークを発表したということを demolition_1に含むこと。
cited for A2 and A3, though by no means all of them, the alternation is actually conditioned, in the deeper structure, by the high tone of the associative morpheme rather than by the final high tone of the preceding noun. These include cases like the following:

(41a) ɗ'gə 'money', ḏny [ (1 pl): ɗgə ḏny 'our money'
(41b) ikó 'cup', ɗ'mánə 'oil': ikó ɗ'mánə 'a cup of oil'
(41c) ɗny 'meat', ɗwú 'goat': ɗny ɗwú 'goat meat'

Implicit in the foregoing is an interesting ambiguity. As noted above, in /ũ' ɗtʃ/ 'three houses' the associative morpheme is not present, but in /ũ' ɗtʃ/ 'the third house' it is present and conditions two morphophonemic alternations. In a phrase such as /ɗwú ɗtʃ/, however, there are two possibilities: the application of A2 in the second word could be conditioned directly by the final high tone of the preceding noun, in which case the phrase would mean 'three goats'; or it could be conditioned by the underlying and later deleted high tone of the associative morpheme, in which case the phrase would mean 'the third goat'. This ambiguity is normally avoided by using, for the ordinal, the noun /ŋkə/ 'thing, the one' in association with the numeral, yielding /ŋkə ɗtʃ/ 'the third'. The noun is then used in association with this phrase, yielding /ɗwú ŋkə ɗtʃ/. In the relatively careful speech characteristic of linguistic analysis and language teaching, /ɗwú ŋkə ɗtʃ/ is often heard, without the normal manifestation of the associative morpheme after the first word. This is presumably appositional: 'a goat, the third one'. The technically ambiguous /ɗwú ɗtʃ/ is assumed to refer to 'three goats'.

By analogy with the use of /ŋkə/ to avoid ambiguity in ordinal phrases after a high tone, it is commonly used also after a noun with inherent final low tone, where there would be no ambiguity in any case. Thus 'the third house' is often, if not usually, expressed as /ũ' ɗtʃ/ ŋkə ɗtʃ/. On the other hand, in some combinations where the ordinal is the only reasonable semantic possibility, /ŋkə/ is not used; e.g., /n'əlékərə ɗtʃ/ 'at the third bell, at three o'clock'. All numerals ('two' through 'ten' and derived phrases) are included in these state-
ments; they all begin with low-high. (The words for 'one', 'twenty', and 'four hundred' are grammatically nouns, not numerals.)

The foregoing discussion of the associative construction is, of course, in the context of a treatment of tonology. It may not be out of place, however, to add that it is presented with a full consciousness of the striking grammatical parallelism with associatives in Bantu and other languages [Welmers 1963]. There are also some differences in grammatical detail, as will be seen in connection with possessive pronouns.

e. (6) After nouns other than verbal nouns, the combination of a noun with a monosyllabic modifier (a pronoun) does not include the associative morpheme. This is attested by the fact that final low tone in such a noun does not have the alternant downstep-high as required before the associative. E.g.:

(42a) ụlọ ụά
'his house'
(42b) ite gị
'your pot'

For some speakers, the same is true regularly after verbal nouns; thus, from a verb stem /bè/ 'cut':

(43) ụ na ìbè ụά
'he's cutting it'

For many other speakers, however, the combination of verbal noun with pronoun must be interpreted as including the associative morpheme; thus, probably more commonly:

(44) ụ na é'bè 'yά
'he's cutting it'

A verbal noun with a following noun ("object"), however, always uses the associative construction:

(45a) ụ na é'bè ụdọ 'he's cutting a rope'
(45b) ụ na á'zά 'ázĺ 'she's sweeping the compound'
The grammar of these may be reflected by 'he is-at rope-cutting' and 'she is-at compound-sweeping'.

f. (7) In the sequence of an imperative from a two-syllable base with the tones high-low and a noun or pronoun object with initial low (or downstep), a complex of alternations identical with those conditioned by the associative morpheme (but not identifiable with it) is found. The conditioning factor in this case can be identified in the underlying structure as the high tone of the verbal suffix; in the surface structure, the suffix has a zero allomorph with most verbs of this type. E.g.:

(46a) há'pũ 'ányʃ 'leave us alone'
(46b) há'pũ 'yá 'leave him alone'
(cf.: hápũ ẹwú à 'leave this goat alone')

(8) Two special alternations apply in the subject of a verb if something precedes it in the same clause. The first of these is Al after high tone in this additional environment: initial low followed by high in the subject has the alternant high. The second is identical with the alternation before the associative morpheme, though the presence of that morpheme is out of the question: before low tone, final low in the subject has the alternant downstep–high. Both of these alternations are attested in relative clauses (of the type 'the man I saw', not 'the man who came', in which the antecedent is the subject). Only the second is attested anywhere else. The reason for this is that anything other than the antecedent of a relative, before the subject of a verb in the same clause, must be followed by the morpheme /kà/, which does not have the conditioning high tone.

In the relative clauses among the following examples, the antecedents are nouns meaning, respectively, 'thing, matter' and 'place'; the alternation illustrated in each is shown by a numeral:

(47) (1) : ̀ányʃ : ̀họ ̀ányʃ mèrè 'what we did'
(2) : ̀únù : ̀họ ̀ú'ñú mèrè 'what you (pl.) did'
(1, 2): ̀ókóyè : ̀họ ̀ókó'yè mèrè 'what Okoye did'
It has been assumed that the third person plural pronoun form, which among other things may be used as a verbal subject, has an initial downstep: /'hâ/. For the singular subject pronouns, there is no evidence that there is or is not inherently an initial downstep. If there is, they are also included in a minor extension of the first of these alternations: after high, initial downstep in the subject is deleted.

E.g.:

(48a) 'bâ hâ nô 'where they are'
(48b) 'hâ ô nà 'ômô 'what he is doing'

h. (9) Two expressions in adverbial usage are exempted from Al and A2; their initial low tone does not undergo alternation. These are /'ôzô/ 'again, any more', and /ôgbû ô/ 'now'. The latter of these is apparently a noun meaning 'time' and the demonstrative 'this', but the noun is not attested in any other combination. Instances of these in the conditioning environments for Al and A2 are:

(49a) ô côrô ô'ôyô 'ôzô 'he wants to come again'
(49b) kâ ô byô 'ôzô 'he should come again'
(49c) mê ô 'ôyô 'ôgbû ô 'do it right now'

The first of these also appears without alternation in what otherwise seems to be an associative construction after the words /'izô/ 'week', /ônwâ/ 'month', and /ôtô/ 'year', with the meaning 'next'. The three expressions are:

(50a) î'izô 'ôzô
(50b) ônwâ 'ôzô
(50c) ô'tô 'ôzô

It cannot be said, however, that initial low tone is simply invariant in these expressions. A completely regular associative construction using /'ôzô/ is also found, similar to the ordinal expressions previously noted. E.g.:
Nor does it seem feasible to assign the instances of non-alternation in these expressions to adverbial use in general. There are some constructions in which a noun /mbo/ 'the beginning, the first time' appears in comparable adverbial usage, but with regular alternations; note the contrast in the following:

(52a) ọ gārə ọ̀bá ọ̀zọ́  
'hewent to Aba again'

(52b) ọ gārə ọ̀bá ọ̀bọ́  
'hewent to Aba first'

A rigidly formal presentation of all that has been said about Igbo tone would inevitably be more difficult to follow, or more lengthy, but it is of course possible. It would follow this order, by way of rough outline:

1. Identify lexical tones, including the high tone of the associative morpheme.
2. Derive the tones of verb bases.
3. Derive the tones of verbal constructions, including the tones of subject pronouns.
4. Make statements concerning monosyllabic nouns, including the pronominal types.
5. State the alternation illustrated by /ọgọ́ .../ from /ọ́gọ́/.
6. State A1, A2, A3 with the exceptions noted.
7. State the alternations in (4.f.) and (4.g.) above.

Thus far Igbo tonology. Requiescat in pace.
REFERENCES


1. Introduction

The data in this paper are derived primarily from a number of Bantu languages, though the phenomena described are much more universal, and data from several other languages are briefly cited later on. A claim is made below that the data help us judge between three alternative approaches to pronominalization, rejecting two of them and selecting the third. This is not to suggest that the arguments below are conclusive. Certainly, the more interesting aspect of these data lies in the type of questions they raise, rather than in the actual solutions adopted. The three theories of pronominalization to be considered are:

(a) **Interpretive**: Pronouns (rather than their referent nouns) are generated by the Base Rules. They then receive their semantic interpretation (or referents) through rules of Surface Semantic Interpretation (see [Jackendoff 1969]).

(b) **Transformational-1**: Nouns (rather than pronouns) are generated by the Base Rules. Pronominalization is a transformational process comprised of two phases:

1. **Depletion**: The noun to be pronominalized is depleted of all features, including phonological matrices, except the feature [PRO] and the relevant agreement features;
2. **Movement**: If the location of the pronoun is not identical to that of the original noun, the pronoun is then moved to its new location;

(c) **Transformational-2**: Nouns (rather than pronouns) are generated by the Base Rules. Pronominalization is a transformational process comprised of the two phases:

---

1For the Swahili data I am indebted to Salma Mbaye, for the Luganda data to L. Walusimbi; the Bemba data are from my own field notes; the Hebrew, Spanish and Amharic data are my own. I am indebted to Ray Jackendoff, Andrew Rogers and Jeffrey Gruber for comments on an earlier draft of this manuscript.
1. **Copying:** The feature [PRO] as well as the relevant agreement features of the noun to be pronominalized are copied from the noun to the appropriate locus of the pronoun;\(^2\)

2. **Deletion:** The original noun is then deleted (see [Givón 1969]); These three theories of pronominalization will be referred to henceforth as "I" (a), "T-1" (b) and "T-2" (c).

2. **'Optional' deletion of pronominalized object nouns**

The first set of data to be considered involves the anaphoric ('in-fixed') object pronouns of Bantu. That is, the pronominalization of object nouns after their appearance in previous discourse. In Swahili we find the following situation:

(1)  
\(ni-li-ona\) kitabu  
I-past-
\(\text{see}\) book  
'I saw the book'

(2)  
\(ni-li-ki-ona\)  
I-past-it-
\(\text{see}\)  
'I saw it'

(3)  
\(ni-li-ki-ona\) kitabu  
I-past-it-
\(\text{see}\) book  
'I saw it the book'

Sentence (3) above will appear more natural if a **demonstrative** is used:

(4)  
\(ni-li-ki-ona\) kitabu hiki  
I-past-it-
\(\text{see}\) book this  
'I saw it this book'

This is of course natural in view of the fact that the book in (3), (4) is one of several mentioned in previous discourse, and the demonstrative is used to narrow down the specificity to that one book.

---

\(^2\)This is not to suggest that the feature [PRO] is generated by the Base Rules. Rather, I have used it here as a notational convenience, to stand for the particular grammatical conditions (such as previous mention in discourse) which govern pronominalization.
One may argue that (3) and (4) above represent a pattern of topicalization, and should perhaps be glossed with a comma intonation. However, a distinct topicalization pattern does exist in Swahili (including the intonation), as in:

(5) kitabu (hiki), ni-li-ki-ona
    book (this), I-past-it-see
    'As to (this) book, I saw it'

Further, the topicalized pattern in (5) is in complementary distribution with the pattern of (3), (4) and (1), so that (6) and (7) below are ungrammatical:

(6) *kitabu (hiki), ni-li-ki-ona kitabu (hiki)
    book (this), I-past-it-see book (this)

(7) *kitabu (hiki), ni-li-ona
    book (this), I-past-see

The ungrammaticality of (6) above suggests that once the object noun is topicalized (or 'is the topic')\(^3\), the deletion step involved in pronominalization must be obligatory. This is of course natural, since the referential identity of a nominal in focus ('in topic') is presupposed to be known, so that the conditions requiring 'optional deletion', as in (3), (4) above, do not exist. The ungrammaticality of (7) may suggest that topicalization is not merely a late movement rule following pronominalization, but at the most a very early 'rule'\(^3\).

The main import of the contrast between (2) and (3), (4) is that in the latter pronominalization proceeds without deletion while in the former with. This 'optional co-existence' of object nominals with their pronouns is typical in Swahili and Luganda. In ChiBemba, a closely related Bantu language, the deletion step in pronominalizations of this

\(^3\)It is quite clear to me that topicalization is not a movement rule, as is quite often suggested. Rather, the notions of 'topic:comment', 'focus' and other presuppositions are expressed in the Deep Structure, and then condition particular 'topicalized' constructions. It is obvious that we know very little about the precise way in which these notions are to be formally expressed in the grammar.
type is **obligatory**:

(8) n-à-mona icifabo  
    I-past-see book  
    'I saw the book'

(9) n-à-ci-mona  
    I-past-it-see  
    'I saw it'

(10) n-à-ci-mona icifabo  
    I-past-it-see book

If constructions such as the Swahili (3), (4) above or their Luganda equivalents represent a non-topicalized, non-iterative pattern, which is the case to the best of my knowledge, then the data presented above pose severe difficulties for theories "I" and "T-l". Theory "I" claims that it is the pronouns themselves that are generated in the Base. This would account for the data from ChiBemba, but not for those of Swahili and Luganda, where a seemingly intermediate stage does in fact exist, where both nouns and pronouns co-occur. The fact that only two nominal elements may co-exist -- but not three or more -- finds no natural explanation in "I". Jackendoff (in private communication) has argued that this is merely a function of the way one states the rule. This may be true in the case of "I", but at least one of the other theories is itself constructed in a way which allows for that intermediate step. Besides, at the most "I" would allow for the co-existence of a pronoun with its semantic interpretation as a certain noun, but never with that noun itself on the surface. Theory T-l is also unequipped to handle the co-existence phenomenon, since it makes no provision for an intermediate step in which both the noun and the pronoun exist. Thus, although initially the format of depletion-cum-movement seems to be a mere notational variant of copying-cum-deletion, the data presented here suggest that the two alternative transformational solutions are different in more than just a trivial way. Theory T-2 allows for data of both the Swahili/Luganda type and the
ChiBemba type. The second step of pronominalization, deletion, may be waived in some languages under well defined semantic circumstances. So that earlier suggestions that 'optional deletion' is involved in Swahili are really erroneous, if one takes seriously the notion that presuppositions, topic-comment and focus are to be represented in the Deep Structure.

3. 'Double relative pronouns' in Bantu

In this section a phenomenon superficially akin to 'co-existance' will be described. Initially I thought its import was similar to that of 'co-existance'. I now doubt this. However, this phenomenon nevertheless raises intriguing questions. In particular, it may lead one to define a universal path through which relative-clause embedding and relative pronouns have arisen.

Most of the cases of 'double relative pronouns' in Bantu involve prepositional objects. This is probably not an accident and I will return to discuss this briefly later on. In one case only, from SeTswana (for this I am indebted to Jeff Gruber, in private communication), we find this phenomenon appearing in direct object relative pronominalization:

(11) monña yo ke-m-monye
     man whom I-him-saw
     'The man whom I saw...'

It is important to notice that in all the examples below involving 'double pronominalization', the second pronoun, much like in (11) above, is the same pronoun used in normal anaphoric pronominalization, and situated at the same locus.

Turning to Swahili now, we find no double pronouns for relativized direct objects:

(12) ni-li-ona ki-tabu
     I-past-see book
     'I saw the book'
(13) kitabu ni-li-cho-on
    book I-past-which-saw
    'The book that I saw...'

(14) kitabu amba-cho ni-li-on
    book which I-past-see
    'The book that I saw...

For objects of the associative NA, however, we find:

(15) ni-li-kuwa na kitabu
    I-past-be with book
    'I had a book'

(16) kitabu ni-li-cho-kuwa na-cho
    book I-past-which-be with-it
    'The book that I had...'

(17) kitabu amba-cho ni-li-kuwa na-cho
    book which I-past-be with-it
    'The book that I had...'

Now, notice that the second pronoun is the regular anaphoric pronoun for objects of the associative NA, as in:

(18) kitabu klie, ni-li-kuwa na-cho
    book that, I-past-be with-it
    'As to that book, I had it'

Let us now turn to 'possessor-object':

(19) ni-li-chukua nombe ya mtu
    I-past-take cow of man
    'I took the man's cow'

*The two relativization patterns in Swahili are, for most tenses, notational variants with, seemingly, no semantic correlates whatever. The second pattern, using the subordinator amba- (formerly 'say'), is to be found in all tenses, while the first, 'infix pronoun' pattern is limited to only some of the tenses. One tense, the -g- 'habitual present', exhibits a third pattern. What is of interest for the present paper is that double pronominalization appears in all three patterns.*
As is evident from (20) above, the second pronoun is again the very same one used in anaphoric pronominalization.

In the case of complex locative objects, whose construction involves the surface 'possessive' case, we find:

(23) tu-li-zungumza juu ya kitabu
    we-past-talk on of book
    'We talked about the book'

(24) tu-li-zungumza juu ya-ke
    we-past-talk on of-it
    'We talked about it'

(25) kitabu tu-li-cho-zungumza juu ya-ke
    book we-past-which-talk on of-it
    'The book that we talked about...'

(26) kitabu amba-cho tu-li-zungumza juu ya-ke
    book which we-past-talk on of-it
    'The book that we talked about...'

The use of the second pronoun in anaphoric pronominalization is shown in (24) above.

Reason adverbs in Swahili too are constructed with the surface 'possessive':

(27) ni-li-kuja hapa kwa sababu ya mtu huyu
    I-past-come here for reason of man this
    'I came here because of this man'
(28)  ni-lu-kuja hapa kwa sababu ya-ke
I-past-come here for reason of-him
'I came here because of him'

(29)  műtu ni-lu-ye-kuja hapa kwa sababu ya-ke
man I-past-whom-come here for reason of-him
'The man because of whom I came here...

(30)  műtu amba-ye ni-lu-kuja hapa kwa sababu ya-ke
man whom I-past-come here for reason of-him
'The man because of whom I came here...

Sentence (28) shows the second pronoun to be the normal anaphoric prono­
noun. The next case involves a locative object concord, again with the 'possessive' involved on the surface:

(31)  tu-lu-fika kwa watu wale
we-past-come to people those
'We came to (the place of) those people'

(32)  tu-lu-fika kwa-o
we-past-come to-them
'We came to (the place of) them...' ('we came to their place')

(33)  watu tu-lu-o-fika kwa-o
people we-past-whom-come to-them
'The people to whose place we came...'

(34)  watu amba-o tu-lu-fika kwa-o
people whom we-past-come to-them
'The people to whose place we came...'

Luganda exhibits similar phenomena in complex-locative constructions
(which again show the use of surface 'possessive'):

(35)  a-lu ku-ngulu kwa enyumba
he-be on-top of house
'He is on top of the house'
(36) a-li ku-ngulu kwa-yo
    he-be on-top of-it
  'He is on top of it'

(37) ku-nyumba ku-ngulu kwa-yo kwe a-li
    on-house on-top of-it where he-be
  'On the house on top of which he is...'

(38) enyumba ku-ngulu kwa-yo gye a-li-(ko)
    house on-top of-it which he-be-(on)
  'The house on top of which he is...'

And, similarly:

(39) a-li mu-rda wa-enyumba
    he-be in-side of-house
  'He is inside of the house'

(40) a-li mu-nda wa-yo
    he-be in-side of-it
  'He is inside of it'

(41) mu-nyumba mu-nda wa-yo mwe a-li
    in-house in-side of-it where he-be
  'In the house inside of which he is...'

(42) enyumba mu-nda wa-yo gye a-li-(mu)
    house in-side of-it which he-be-(in)
  'The house inside of which he is...'

Some of the constructions above involving the surface 'possessive'
(the Bantu -a- link) are fascinating for reasons not directly connected
with the main theme of this paper. Thus, if one assumes that 'straight
possession' arises from an embedded sentence (so that 'The cow of the

5Here the two relativization patterns seem to have a slight meaning
correlate, akin to Engl.: 'On top of the house on which/where I
stand...' vs. 'The house on top of which I stand...'. The first requires,
in Luganda, the relative pronoun agreement of the locative gender (kwe,
mwe); the second requires gender 9/10 agreement, for enyumba 'house'
gye).
man...' is derived from 'the cow #the man has a cow#...'), then the whose relative pronominalization of English represents a breach of Ross's Complex NP constraint, since it removes (or 'copies', in my terminology) an NP embedded two levels below:

\[(43)\]

\[
\begin{array}{c}
\text{man} \\
\text{I took cow #} \\
\text{man has cow}
\end{array}
\rightarrow \text{The man whose cow I took...}
\]

On the surface, it seems that while English lexicizes the possessive in relativization as a single pronoun whose, Bantu languages keep two separate pronouns — the relative and the anaphoric. However, 'whose' may well be a double pronoun itself, so that (43) above yields after the first cycle and rel. embedding:

\[(44)\]

\[
\begin{array}{c}
\text{man} \\
\text{I took cow of the man}
\end{array}
\]

What may follow now is anaphoric pronominalization, to yield:

\[(45)\]

\[
\begin{array}{c}
\text{man} \\
\text{I took cow of him}
\end{array}
\]

It is worth noting that Bantu languages seem to lexicalize this rel. clause as in Swahili:

\[(46)\]

\[
\text{mtu amba-ye ni-ll-chukua nombe ya-ke}
\]

\[
\begin{array}{c}
\text{man} \\
\text{whom I-past-take cow of-him}
\end{array}
\]

'The man whose cow I took...'

Thus, the seemingly great typological difference between Bantu and English here may be the result of differences in lexicalization -- where English has a lexeme ('whose') which can absorb ('spell') both the relative and the anaphoric pronoun, while Bantu languages do not,
so that they lexicalize two different pronouns in these constructions.

What may emerge out of this discussion is the following: perhaps \textit{anaphoric} pronominalization was, at least historically, a necessary step in \textit{relative} pronominalization. Rather, that \textit{anaphoric} pronominalization is the general (and non-cyclic) case, while \textit{relative} pronominalization (cyclic because of the cyclicity of \textit{embedding}) is merely a special case which grew out of it in a very restricted set of environments.

The evidence for this formulation is abundant. First, the fact that the double-pronouns in Bantu always include, as the second member of the pair, the normal \textit{anaphoric} pronoun. Next, it is fairly clear that \textit{relative} pronouns are a later development in English, arising from a merger of a \textit{subordinator} ('that') and an \textit{anaphoric} pronoun; so that (47) below was rendered in Anglo-Saxon as something like (48):

\begin{align*}
(47) & \quad \text{The man who came...} \\
(48) & \quad \text{The man that he came...}
\end{align*}

and (49) as something akin to (50):

\begin{align*}
(49) & \quad \text{The man whose cow I took...} \\
(50) & \quad \text{The man that I took his cow...}
\end{align*}

The next example is taken from Bambara,\(^6\) where it seems that in many instances the embedded sentence is \textit{not embedded} at all. Rather, a marker \textit{(m:n)} is put after the relativized noun in the 'matrix' sentence. Thus, (51) below represents a \textit{conjunction} (in time-sequence) of two sentences, while (52) represents \textit{relativization}:

\begin{align*}
(51) & \quad n \ ye \ ce \ ye, \quad o \ ye \ mbumu \ san \\
& \quad \text{I past man see, he past knife buy} \\
& \quad \text{'I saw the man, (and) he bought a knife'}
\end{align*}

\(^6\)For this I am indebted to Karen Courtenay. Bird [1966] has an extensive discussion of Relativization in Bambara, though I do not necessarily subscribe to all the details of his analysis.
The particle $\text{n}_2$ may be called 'rel. pronoun', though it is invariant and there is no evidence that it is anything but a subordination marker. One may thus say that both Bambara and Anglo-Saxon had only anaphoric pronominalization, and while English went on to develop relative pronominalization, Bambara did not.

The next case is taken from Hebrew. Like Bambara, Hebrew has no relative pronouns per se, but only a general subordinating particle, the prefixal $\text{she}$- In relativization, one may use only $\text{she}$-, in which case one may say that zero-relative-pronominalization took place, as in:

(53) $\text{ha\text{-}ish she-r\text{-}a\text{-}iti etmol}$

the-man that-I saw yesterday

'The man (that) I saw yesterday...'

As a stylistic variant one may use either (54) or (55) below, both using $\text{she}$- plus the anaphoric object pronoun(oto), with (54) considered somewhat 'sub-standard' (that is, spoken by lower-class speakers or children):

(54) $\text{ha\text{-}ish she-r\text{-}a\text{-}iti oto etmol}$

the-man that-I saw him yesterday

'The man whom I saw yesterday...'

(55) $\text{ha\text{-}ish she-oto ra\text{-}a\text{-}iti etmol...}$

the-man that-him I saw yesterday

'The man whom I saw yesterday...'

Next, Amharic has a rather similar situation, except that the 'resumptive' pronoun must appear obligatorily in relative clauses. This pronoun is akin to the regular anaphoric (object) pronoun. The relativizer-particle in Amharic is an invariant $\text{ye}$-:
Finally, in some (again 'sub-standard') dialects of Spanish, such as lower-class Andalucian, one finds the use of the anaphoric object pronoun in addition to the invariant subordinator que:

(59) (yo) he visto al muchacho
   '(I) have seen the boy'

(60) (yo) lo he visto
    (I) him have seen
    'I've seen him'

(61) el muchacho que lo he visto
    the boy that him (I) have seen
    'The boy that I've seen...'

Sentences (61) and (60) are admittedly sub-standard in educated Spanish. However, (62) and (63), showing virtually the same phenomenon (except that the object-pronoun remains in the prepositional case) may be more acceptable:

(62) (yo) he visto a el ayer
    (I) have seen him yesterday
    'I have seen him yesterday'

(63) el muchacho que (yo) he visto a el ayer
    the boy that (I) have seen him yesterday
    'The boy that I saw yesterday...'

To sum up then, the appearance of anaphoric pronouns in relativization is
widely attested. Anglo-Saxon, Hebrew, Amharic, Bambara and Bantu show
them quite regularly. 'Sub-standard' Spanish (and even children-English,
as in the not uncommon: 'The boy that he beat me yesterday...' or 'The
girl that I beat her yesterday...') shows it. One may well divide lan-
guages synchronically into the following groups:

(a) Languages which have only a subordinating particle for relativi-
zation, but may use either a zero or an anaphoric pronoun as well
(Hebrew, Amharic, Anglo-Saxon, non-standard Spanish, Bambara);

(b) Languages which developed a relative pronoun, probably by merging
the subordinating particle with an erstwhile anaphoric pronoun
(Modern English, most Bantu languages with respect to subject and
direct-object relative pronouns);

(c) Languages which exhibit double pronominalization proper (Bantu, in
most prepositional-object rel. pronouns);

One may well argue that the discussion above involved diachronic
phenomena and is therefore irrelevant to judging between three alter-
native synchronic descriptions. This author happens to doubt that such
a sharp division may be, or should be, drawn. The Bantu phenomenon of
double-pronominalization nevertheless presents a challenge to any syn-
chronic theory of pronominalization. Since we have already found "I"
and "T-1" inadequate, and since the phenomenon of double-pronominal-
ization (particularly if one accepts the assumption that one of the
pronouns is anaphoric) presents the same difficulties to either theory,
I will concentrate only on pursuing its implications with respect to
"T-2".

There are essentially three ways by which to modify "T-2" so that
it accounts for double-pronominalization in Bantu.

1. One may adopt in part the depletion provision of "T-1", so that
deletion will be broken into two steps: first depletion, to
leave a pronoun; then full deletion of that pronoun. Copying will
then proceed as before. In some languages then both depletion and
deletion take place in relativization; while in some environment
in Bantu, only depletion but not full deletion occurs, to yield
two pronouns, one arising from copying, the other from depletion
of the original noun.

2. Alternatively, one may stipulate that under a certain environment for relativization in Bantu double copying occurs, and two pronouns are produced, after which the original noun is deleted.

3. Finally, one may argue that two separate processes of pronominalization occur in Bantu relativization. One of those, anaphoric pronominalization, is universal and occurs in all instances of pronominalization in whatever language. The other, relative, is idiosyncratic to Bantu.

Solution 1. above explains in a seemingly natural way the magical number two. However, it takes no account of the fact that the second pronoun (and in fact most varying 'true' pronouns in languages which have only one relative pronoun) is the normal anaphoric pronoun. Further, it adds complicated machinery of another type to the already existing machinery of copying.

Solution 2. and 3. are almost identical, except that 2. does not take account of the fact that the second of the two pronouns is the normal anaphoric one.

The double-copying mechanism also appears in solution 3. Much like in 2., this mechanism cannot, by itself, account for the magical number two, since what is to constrain the copying procedure from repeating more than twice? One may argue, however, that for most languages only one copying occurs, the anaphoric one, which also shows up in relative pronominalization in quite a few languages. The second, relative copying, is much more limited in its distribution. But one may have to accept its presence as real, and allow for its occurrence in the grammars of the few languages which have already developed it. Constraining it will not present a grave problem, since it may apply once (perhaps following the more universal anaphoric copying) only in relative embedded construction.

There is another advantage in viewing the two pronouns as arising from two separate processes. Relative embedding is a cyclic phenomenon. Anaphoric pronominalization is not necessarily so. Although the deletion of the original noun is shared by both processes and must follow them,
and although both copying processes may occur at the same point (as suggested in [Givón 1969: part 2.]), the two processes may differ in some of their properties, so that eventually solution 3. may gain further, independent, motivation.

4. The 'Coexistence' phenomenon in other languages

So far I have shown that some of the phenomena underlying double pronominalization in relative clauses are not limited to Bantu languages. More relevant to our attempting to judge between the three alternative theories of pronominalization is the fact that 'optional co-existence' of pronouns with nouns, in non-iterative, non-topicalized construction, is also a fairly widespread phenomenon.

Going back again to 'less-standard' dialects of Spanish, one finds:

(64)   he vito al muchacho
      'I saw the boy'

(65)   le he visto
      'I saw him'

(66)   lo he visto al muchacho
      'I saw him the boy'

(67)   le he visto a este muchacho
      'I saw him this boy'

(68)   le he visto haver a este muchacho
      'I saw him yesterday this boy'

The fact that (67) is more 'natural' than (66) may hint that factors similar to those shown in Swahili control the variation between the 'straight' pronominalization and pronominalization plus coexistence of the noun. The greater acceptability of (68) may suggest that performance factors, such as length of intervening 'chunk' between the pronoun and noun and perhaps memory limitations, may play a role in controlling the acceptability of the output. That (66), (67), (68) are not topicalized patterns is suggested from the existence of regular topicalization in Spanish, with an obligatory intonation break and obligatory pronominalization:
Finally, a baffling but seemingly acceptable topicalized pattern, at least in Andalucian Spanish, is:

(69) *este muchacho, lo he visto
(70) *este muchacho, he visto
(71) *este muchacho, lo he visto a él

This data may hint that solution 2., or even 1. rather than 3. may better account for double pronominalization. It is also possible that the double-pronouns in Bantu, although appearing only in Relative clauses, arise from double anaphoric pronominalization, with zero subordinator and zero rel. pronoun. This would certainly bring the Bantu data closer in line with the other languages discussed. At the moment, though, I see no compelling empirical grounds on which to base a firm decision.

Modern Israeli Hebrew also exhibits, at least in 'lower class' or children dialects, the co-existence phenomenon:

(73) ra'i t i et ha' i sh
     'I saw the man'
(74) ra'i t i oto
     'I saw him'
(75) ra'i t i oto et ha' i sh (less standard)
     'I saw him the man'
(76) ra'i t i oto et ha' i sh haze (more standard)
     'I saw him this man'
(77) **ra?iti oto etmol et ha?ish haze**  
more standard yet  
'I saw **him** yesterday **this man**'

(78) **ra?ita oto et ha?ish haze?**  
more standard yet  
'Did you see **him** **this man**?'

Hebrew also possesses the **topicalized** pattern, as in:

(79) **ha?ish haze, ra?iti oto etmol**  
'(as to) **this man**, I saw **him** yesterday'

(80) *ha?ish haze, ra?iti etmol*

(81) *ha?ish haze, ra?iti oto etmol et ha?ish haze*

Finally, in Amharic there exists the phenomenon of 'resumptive pronouns', which, so far as I have been able to ascertain, is identical to our co-existence phenomenon. Amharic shows a S-O-V syntactic order, and 'resumptive' object pronouns appear as suffixes to the verb — both in the case of **topicalized** and **non-topicalized** object nouns. For many prepositional objects, further, this 'resumption' is obligatory, while for others it may be 'optional' (for further data and discussion of this subject, see Hetzron [1970], in this issue, and Getatchew [1970]).

As a fairly typical example, consider:

(82) **bâqlo shumu-n ra?ggätè-ew**  
mule **the official** kicked-him
'a mule kicked the official'

(83) **dannyà lë-so-ët fërradàl-ät**  
judge for-thief judged-for-him
'A judge decided in favor of the thief'

The **topicalized** pattern for (82) and (83) above is, respectively:

(84) **shumu, bâqlo ra?ggätè-ew**  
**official, mule** kicked-him
'(as to) the official, a mule kicked him'
5. Some reflections on zero pronominalization

I have suggested earlier that zero pronominalization, either anaphoric or relative, may be a fairly common phenomenon. Zero pronouns are reported to be the rule in Japanese [McCawley, in private conversation]. In sub-standard American English it is not uncommon to hear:

(86) The man came here yesterday...
     'The man who came here yesterday...'

In Hebrew, zero anaphoric pronominalization of direct object nouns under certain circumstances is quite common:

(87) ra?iti et ha?ish
     '(I) saw the man'

(88) ra?ita oto? ken, ra?iti
     'Did you see him? Yes, I saw'

Any theory of pronominalization must be able to account for zero pronouns. Within the framework of our theory "T-2", this may be done in one of the following ways:

(a) By assuming that the copying step fails to apply in cases of zero pronouns, though the deletion (under identity) did then apply;

(b) By assuming that both copying and deletion applied, but that copying does not involve morphemes (i.e., 'phonologically-spelled' morphemes), but pertains only to abstract agreement and [PRO] features, and that zero pronouns result from failure of spelling in the second lexicon.

I have elsewhere [Givón 1969: part 2.] given several arguments, supported by empirical data, to substantiate the position that the copying process occurring in both agreement and pronominalization involves only abstract features, and that the copied features receive their 'spelling' post-cyclically in the second lexicon. The 'failure of spelling' solution (b) is probably a notational variant of Gruber's idea [1967a] of 'incorporation'. It is not at all clear to me how an interpretative
theory of pronominalization may account for zero pronouns. Jackendoff [in private communication] has suggested to me that perhaps this could be done by generating empty nodes, that is, by not lexicalizing NP nodes. At the moment I cannot see the merits of this solution.

6. Conclusion.

The force of the magical number two as upper bounds on the number of co-referential nominal elements in a (non-topicalized) construction seems rather compelling to me. It seems that only a theory of pronominalization which provides for both copying (a process common to both pronominalization and grammatical agreement) and subsequent deletion can account for both co-existence and double-pronominalization in a natural way. It is still likely, though, that a copying-cum-deletion format may have to accommodate a 'depletion' feature in order to account for double pronouns. The fact that the copying-cum-deletion format for pronominalization has received independent support from the study of grammatical agreement and its interaction with pronominalization [Givón 1969: part 2.], tends to reinforce my belief in its general validity.

A deeper relation between copying-cum-deletion (in pronominalization) and copying without deletion (in grammatical agreement) is also suggested by Gruber [1967b], derived from his study of children's language. Briefly, Gruber seems to suggest that the normal (non-topicalizing) pattern of children sentences is a 'copying' one, as in:

(89) the man he ran

and that the pronoun he in (89) is the product of agreement. This blurs considerably the distinction between the two processes, and it may very well be that the deep relation between the two, as suggested in Givón [1969], is not a spurious phenomenon of Bantu languages. It has been widely observed that languages which impose full and obligatory subject agreement on predicates, as Spanish, Hebrew or Bantu, tend to allow zero-pronominalization of the subject NP, as in:
(90) Hebrew:  ṭa[titi et ha ish
           '(I) saw the man'

(91) Spanish:   has visto a el?
             'have (you) seen him?'

(92) Swahili:   a-li-kuja
              '(he) came'

The strong person/number/gender inflection on the verb makes the deletion here not only possible but often obligatory once a (third-person) noun has been mentioned in previous discourse, and just about obligatory for the first and second persons, where the referentiality of the subject is never in question. In particular in Bantu, where the basic CV-elements in all pronouns are the very same ones involved in grammatical agreement, it seems quite likely that the vast inventory of pronouns has developed historically as an offshoot of the agreement morphemes. The fact that in all languages having both agreement and pronominalization, the very same abstract features are involved in both, may strongly hint at the universal common origin of these two processes.
REFERENCES


0. **Introduction**

a. The present paper is a preliminary study for a monograph on the Amharic case-system. Since my purpose is to present only the theoretical basis for the longer study, I am using here as few examples as possible, even though each statement is supported by a sufficient number of examples, both orally collected and compiled from written documents.\(^1\)

Amharic is eminently appropriate for a study of case-systems. Its entire complement-system can be defined in interpretive semantic terms. This language has no significant instances of arbitrary, lexically specified verbal government.\(^2\) If the semantic features of a verb are clearly established, it can be predicted what case the complements attached to it will take. In many languages, arbitrary verbal government is established through semantic changes in the lexical verb which, in spite of the changes, maintains its original case government. Amharic has no such instances.

Amharic is of particular interest here since, as a Semitic language, its ancestor must have had a different case-system, reconstructible by comparing various Semitic languages. It is obvious that the modification of the original case-system was triggered by the impact of the Cushitic substratum, but the most interesting feature of the Amharic case-system, the asymmetrical correspondences (see below), are not found in Cushitic (as far as we know). Amharic tried to make use of its

---

\(^1\)The present study is primarily based on literary Amharic. In some cases, however, I had recourse to the assistance of two native informants, Mr. Wond Wossen Mesfin and Mr. Aynalem Bekele, who represent the Addis Ababa colloquial of the young generation. This dialect noticeably differs from the literary language, especially in the domain of case uses. Some of the discrepancies will be pointed out in footnotes.

\(^2\)This is a counter-example to Jespersen's [1924:129] claim (about Indo-European) that "however far back we go, we nowhere find a case with only one well-defined function: in every language every case served different purposes, and the boundaries between these two are far from being clear-cut."
Semitic morphological devices to express Cushitic case-categories, and the result is an absolutely original system, with much coherence and consistency, independent of both its sources, Semitic and Cushitic.

If the Amharic case-system is ultimately a spontaneous development, one may wonder what factor inspired the selection of its categories. In the following I assume that these developments were not fortuitous, but reflect very deep categories of language. It is premature to speculate about how many universal and language-specific elements the Amharic case-system contains, but it is quite likely that a great deal of it is universal.

b. In my "Pronominalization in Amharic" [Hetzron 1966], I gave a taxonomical description of the Amharic case-system on the basis of correspondences between adnominal and adpronominal case exponents. In this language, there are six basic prepositions which can be attached to complement nouns, and three sets of complement suffix pronouns only. Without taking semantics into consideration, it is impossible to predict from the adnominal case marker what case the pronominal complement is going to be in, and vice-versa. Let me illustrate this point.

Here are three uses of the preposition kš- which might be fairly well rendered by the English preposition 'from':

(1a) sōwiyaw kš-bet (wes†) wā††a
man—the from=house (inside) went—out
'The man came/went out of the/a house'

(1b) fērw kš-bartukan wes† wā††a
pip—the from=orange inside came—out
'The pipe came out of the orange'

(1c) lebaw kš-sōwiyaw gānzaib sārraqa
thief—the from=man—the money stole
'The thief stole money from the man'

Let us now use pronouns instead of nouns for the complements preceded here by kš-. These pronouns will be suffixed to the verbal stem. The construction used below is the relative where the pronominal suffix of the verb refers to the subsequent head-noun, and its 'case' reflects function within the relative clause, represented in (1) by kš-.
(2a') sāwiyāw yā-wāṭṭa-bbāt bet
man-the that=came-out=it house
'the house from which the man came/went out'

(2b') fārw yā-wāṭṭa-lāt barūkan
pip-the that=came-out=it orange
'the orange from which the pip came out'

(2c') lebaw gānūā yā-sārrāqā-w sāw
thief-the money that=stole=him man
'the man from whom the thief stole money'

In other words, instead of 'from it' (for 'from which'), we respectively
have 'in-it', 'to-it' and the plain object suffix 'it', three different
suffixes corresponding to the same preposition kā-. The choice of
the pronominal case can be predicted on the basis of the meaning. If
one speaks of origin, departure point, the pronoun has 'in' (a). If
one describes extraction, drawing out a component from a whole, the pro­
nominal complement is 'to' (b). If one mentions the source of acquisi­
tion, it will appear as an object pronoun (c). With nouns, as we have
seen in (1), all the three relations are represented by the preposition
kā- 'from'. Thus, the pronominal case cannot be predicted on the basis
of the shape of the nominal case; one has to have recourse to semantics.

Let us now try it the other way around and see whether nominal cases
can be predicted on the basis of the pronominal one. The answer is even
more emphatically negative. In the form:

(3) yā-māṭṭa-bbāt N
that=he-went=it N

-bb- 'in' may be the pronominal counterpart of any of the following ad­
nominal cases (i.e. N can be any of the nouns which in (4) are preceded
by prepositions:

(4a) bā-nākinā māṭṭa (bā- instrumental)
with=car he-came
'He came by car'

(4b) bā-mēda wāsī māṭṭa (bā- locative)
in=field inside he-came
'He was coming in the field'
Furthermore, māṭṭa-bbāt may also be used in the sense of 'he came to his (own or someone else's) detriment', a pronominal use which has no nominal counterpart.

This leads to the conclusion that surface complement relations must be defined in terms of two exponents, the adnominal and the adpronominal case markers.

1. Symmetrical and asymmetrical correspondences

The adnominal complement markers are (with approximate definitions, to be developed later): -n (object, accusative), lā- (dative), bā- (locative/instrumental), kā- (ablative), wādā (directional), sālā (purposive 'for', topical 'about, on the subject of'). The three spatial prepositions bā- (static), kā- (away), and wādā (toward) are often supplemented by postpositions like wā→ 'inside', lā' 'top', tāc 'underneath', a ḥēgāb 'near', etc. for more specific expression.\(^3\)

There are some other compounds, kā-...gar(a) 'with' (comitative), bā-...mānēyāt 'because of', etc., but they do not concern us here. The only 'Preposition-...Postposition' combination relevant to our topic is bā-...lā' which, in addition to its local meaning 'on (the top of)', can also be used as a topical (\(\sim \) sālā) and as a benedictive (see

\(^3\)In Addis Ababa colloquial, the static and directional locative prefixes ( bā- and wādā ) are most often replaced by the preposition sē = ð. As in all its uses sē alternates with one of the prepositions above, and in no case is it the only preposition to use, I omit sē from this discussion. The Addis Ababa colloquial further uses the postposition ga in the same sense as a ḥēgāb.
below). We are also excluding prepositions with very clear and concrete meaning like andä 'like, as' which have no suffix-pronominal counterpart.

The suffix pronouns belong to three sets: O (object), B (etymologically related to bā-), and L (etymologically related to ḫā-). The following graph (Table 1) sums up the possible combinations of adnominal and adpronominal case markers on the basis of Hetzron [1966] (which cites many more examples), with some further data. Ø in either column indicates that the complement in question can appear only under the other category, i.e. Ø in the first column marks a complement which can only be pronominal, and in the second a complement which appears only as a noun, never as a suffix pronoun.4

Various combinations of 7 adnominal cases + zero and 3 adpronominal cases + zero (8 vs. 4) make up 20 surface complement types actually used in Amharic. The -n/O, ḫa/L and bā-/B correspondences have been called, with some historical bias, symmetrical, and the rest asymmetrical. Descriptively speaking, the combinations -n/B, ḫa-/B and bā-...lay/L have a special status. Whereas in the other cases there might be (1) a nominal complement only (except when Ø), (2) a pronominal complement only (except when Ø), or (3) a nominal complement with a resumptive pronominal complement (e.g. to-the-man I-answered=to-him [see Getatchew [1970] for the function of this construction]), these three can only appear in the last two configurations, either as a pronominal complement (in which case -n/B cannot be distinguished from bā-/B), e.g.:

(5) yah sēra baazu glīz wāssādā-bbā†
    this work much time took=in-him
    'This work took him a long time'

---

4Independent pronouns behave like nouns. They can have adnominal case-markers. In the following, I shall use the term pronoun with reference to pronoun suffixes only. This is well justified, because the resumptive [Getatchew 1970] and relative [Hetzron 1966:83-4] functions of pronouns can be fulfilled by suffixes only, e.g. ḫa-ziḥu sāw ḫu-... to-the-man I-answered=to-him, 'I replied to this man', resumptive; ḫa-ziḥu sāw ḫu-... that-I-answered=to-him man, 'the man to whom I answered', relative. In these cases, ḫa-(a)ssu to=he with the independent pronoun can never be used.
Table 1
(6) yah sərə t̄-zzih səw bezu gize wəssäd—a-bbä+ t̄
this work to= this man much time took= in-him
'This work took this man a long time'

but never with a nominal complement only:

(7) *yah sərə t̄-zzih səw bezu gize wəssäd—a
'This work took this man a long time'

Here is a breakdown of the meanings of the various combinations in Table 1., arranged according to the first (nominal) column. This is only a provisional presentation of the surface-situation with approximative semantic interpretation, meant to serve as raw material for the subsequent analysis.

a. ø/ø. In Amharic possession is expressed by means of the verb allä 'there is', with a peculiar type of construction:

(8a) (yah səw) məšḥaf allä-w
(this man) book there-is= him
'(This man) /He has a book'

(8b) (yah səw) məšḥafocč allu-t
(this man) books there-are= him
'(This man) /He has books'

(8c) (ənəzzizh səwočč) məšḥaf all-xččw
(these men) book there-is= them
'(These people) /They have a book'

(8d) (ənəzzizh səwočč) məšḥafocč allu-xččw
(these men) books there-are= them
'(These people) /They have books'

The agreement with the verb shows that the surface subject of the sentence is the element possessed. The possessors are absolutely unmarked, they are in fact in extraposition,\(^5\) i.e. not integrated syntactically into the

\(^5\)Also called 'introductory nominative'. The term already used for this phenomenon in generative grammar is 'dislocation'.

sentence [Dawkins 1960:54]. At the end of the verb, there is an O type
pronoun suffix in agreement with the extraposed noun. The sentence is
correct without an explicit extraposed noun, but not without the pronoun.

b. Ø/B. The Amharic expression for necessitative 'must' is similar.
The person or object under obligation may only appear in extraposition,
outside the S proper, and the same verb alla is followed by a B pro-
noun suffix in agreement with the extraposed noun, with a verbal noun
as the subject:

(9a) (yah saw) mähed alla-bbät
   (this man) going there-is=in-him
   '(This man)/He has to go'
(9b) (anäzzih sawočč) mähed alla-bbaččaw
   (these men) going there-is=in-them
   '(These men)/They have to go'

Ø/B can also be used to indicate that the action or event mentioned
is detrimental to someone, e.g.:

(10) and leğ bæær sábbāră-bbän
   one boy pen broke=to-me
   'A boy broke a pen to my detriment'

If the person to whose detriment the action takes place is not clear from
the context, the only way to mention him is by using extraposition:

(11) yah saw, and leğ bæær sábbāră-bbät
   'This man, a boy broke a pen to his detriment'

In practice, however, the person the damage is done to is often the owner
of the object broken, as in:

(12) and leğ yäzzih-an saw bæær sábbāră-bbät
   'A boy broke this man's pen to his [the man's] detriment'

c. -n/O. This is the usual case-marking for an object. The object
suffix is -n after definite or generic nouns [Afevork 1905:291], and
zero after indefinite nouns. I am using -n as a symbol for the object
case in general. -n/O is one of the three symmetrical correspondences.
This asymmetrical correspondence freely alternates with the symmetrical \( \text{bā-} \ldots \text{lay} \)/B in many verbs with a clearly stylistic-euphonic function. \(-n/\text{B}\) is preferred to \( \text{bā-}/\text{B}\) whenever the alternation is possible. There are two conditions for the alternation: the presence of a resumptive pronoun B (the abundance of \([b]\)'s in \( \text{bā-} \) and later in \(-bb-\) is thus avoided by replacing the first one with \(-n\)), and that the complement must be an organic, not only incidental, part of the content of the verb. Thus, in:

(13) \[ \text{sāwočću bā-} \text{agziabher yammuallu} \]

the-men in=God believe

'The people believe in God'

\( \text{bā-} \) may not be replaced by \(-n\). The sentence

(14) \[ \text{sāwočću bā-} \text{agziabher yammu} \text{-bbēt-all} \]

...they-believe=in-him=Aux

'The people believe in God'

however, freely alternates with:

(15) \[ \text{sāwočću agziabher-} \text{an yammu} \text{-bbēt-all} \]

'The people believe in God'

as there is a resumptive pronoun. As far as the 'organicity' of the complement is concerned, in:

(16) \[ \text{bā-} \text{mākina} \text{w} \text{mētačće} \text{-bbēt} \]

in=the-car she-came=in-it

'She came with the car'

the instrumental \( \text{bā-} \) cannot be replaced by \(-n\) because the presence of an instrument does not necessarily follow from the content of the verb 'come'. On the other hand, beside:

(17) \[ \text{bā-} \text{mākina} \text{w} \text{tēqqāmku} \text{-bbēt} \]

in=the-car I-used=in-it

'I used the car'

it is possible to say:
(18) ܡܟܝܢܐܦܢ ܪܡܫܩܫܩܫܡܟܘ-ܒܒܬ
the-car=Acc, I-used=in-it
'I used the car'

since the verb 'use' implies an instrumental (in the instrumental/locative case).\(^6\)

e. ܐܒ-ܡܕ. Dative, i.e. transfer of an entity to someone, is usually expressed by ܐܒ-ܡܕ, for instance with verbs like 'give', 'lend', etc. The only notable exception I know of is the verb ܫܡܫ 'sell' which requires, for the buyer, ܐܒ-ܡܕ. The explanation for this apparent discrepancy might be that selling implies primarily transfer of rights and not necessarily handing an object over to another person.

In intransitive verbs such as 'to be enough' (ܒܩܩ), 'to be necessary' (ܐܫܐܠܐ), 'to seem' (ܡܠܠܠܐ), etc. the entity for which 'it is enough', etc. will have also ܐܒ-ܡܕ [Armbruster 1908:461c]. The term 'experiencer' is proper for this subcategory. A special case of experiencer is the 'agent' of the passive forms of verbs of cognition, perception, 'to be known to' (and not 'by' even in English), 'to be seen/visible to', etc. The corresponding causatives also have ܐܒ-ܡܕ for the one who is subjected to the experience such as 'to show to', 'to let someone know' [Polotsky 1960:120].

f. ܐܒ-ܡܕ. This combination is used in the sense of 'to the benefit of' (benefactive), or 'to the intention of' (destinative). When something to be handed over is sent, ܐܒ-ܡܕ mark the addressee. The beneficiary of a permission (ܡܩܩܕܕ 'allow') or the person replied to (ܡܠܠܠܐ 'answer') are also in the ܐܒ-ܡܕ case. This combination is further used when an action is performed on a component of the entity represented by the complement, as in:

\(^6\)For other examples of euphonic -ܢ, see Polotsky [1966:243, fn. 3]. There, ܝܘܚܢܢܣ-ܐܢ ...ܝܡܡܠܐ-ܒܒܐܡܘ means 'who writes ... about King John', the -ܢ indicates that ܒ is not used in the detrimental sense 'against'. For the concept of organic vs. inorganic complement, see Zsilka [1967:108sq.] and here [fns. 26 and 29].
Furthermore, lā-/b may be used in the purposive sense 'for' in free alternation with sālā-/l.

g. lā-/b. This combination is used for an addressee who gets a message (and not an object sent) or something that he does not have to handle [Hetzron 1966:93]. Another case involves the 'effectual', i.e., an entity that suffers the effects and consequences of the action or event. Finally, lā-/b is used for the purposive 'for' in free alternation with sālā/b. For the distinction between sālā/l and sālā/b see t. below.

h. bā-/l. This is reserved to the agent of the passive, e.g.:

(20) yəḥ bə'ar bā-sāwyā wāsābbārā
    this pen in-the-man was-broken
    'This pen was broken by the man'

It is remarkable that the agent of the passive cannot be pronominal. The is no 'by him', nor, in relative constructions, 'by whom'. As the corresponding active forms can express practically the same thing, such a block on the agent creates no problem.

i. bā-/l. This is the case of what I called [Hetzron 1963] the 'mediator' in a factitive7 construction. The pattern is 'X causes Y to perform an action'. If Y is actively involved in the action, it will appear in the accusative. If, on the other hand, Y is a mere instrument in the hands of X, it will take the preposition bā-. The latter cannot, however, be assimilated to the instrumental (bā-/b) because its pronominal reflection, like that of the other type of mediator is l.
j. b3-/B. The symmetrical correspondence b3-/B is used in the very general sense of locative (also when b3- is supplemented by locative postpositions), and in the instrumental (where b3- may be supplemented by the postpositions ...ēg 'hand', ...amakkayən̪ät 'intermediary'). Temporal complements are also in b3-/B. Verbs like 'believe in', 'envy', etc. have b3-/B for the entity trusted or envied. Cf. d. above.

k. b3-...lay/L. This is the benedictive sense, for the entity on which something is imposed by a higher authority in a beneficial manner [Hetzron 1966:92 (d) for examples]. In this case, the nominal complement cannot stand alone. It must be followed by a resumptive pronoun L.

l. b3-...lay/B. This use is equivalent to the topical səl5/B, it refers to the topic of conversation, discussion, subject of agreement etc. It can be replaced by -n/B, see d. above.

m. kā-/O. Used as agent of passive when it can be interpreted as the origin of the entity designated by the subject, either because it 'emana­ted' from him being his creation (as in kā-N ādārīs5 'by=N was-written', speaking of a book), or sent out by him (kā-N ālakā 'by=N was-sent'). As in h. above, this agent cannot appear as a pronoun.

n. kā-/O. Source of acquisition is designated by this combination. Another use is in comparative constructions, the entity against which something is measured has kā-/O 'more/less than'. Both uses of kā-/O alternate with -n/O when there is a resumptive pronoun. It is thus possible to say:

(21) kā-sefyyawā and mēshaf gaţzah
    from=the-woman one book I-bought
    'I bought a book from the woman'

or with resumptive pronoun:

(22) ...gaţzahʷ-ət
    bought=her

but only
(23) setayywa-n and mâšaf gâzzahw-at
the-woman=Acc. one book I-bought=her
'I bought a book from the woman'

and never

(24) ...gâzzahw

when the source of acquisition (here 'the woman') has the object ending -n.

o. kâ-/L. This marks the entity from which a component has been or is extracted, e.g.:

(25) qabatu yêtâgâffôfîfô-llôt wëtôt
the-butter that-was-removed=to-i milk
'the milk from which the cream was extracted' (=skim-milk)

and (1b)-(2b') above.

p. kâ-/B. This is the ablative case, the place from which someone or something is moving away, origin, etc. It may sometimes indicate the place approached, but also implying that the approach is completed. Sometimes it is used as a plain locative. These uses of kâ- will be dealt with in 3.j. below.

q. wëdê/L. This marks the person approached.

r. wëdê/B. This indicates the place approached. The use of wëdê does not necessarily imply completion of the approach, it may also be 'towards'. The translative 'to transform into' is also rendered by this combination. wëdê, with no clear pronominal counterpart, is also used in the sense of 'approximately'. This is nevertheless no instance of wëdê/Ø. In fact, in Amharic there is no clearcut way to distinguish between 'the time at which' and 'the time about which'.

s. sêlê/L. This is the purposive 'for', also in the sense of 'instead of'. It can be analyzed only in comparison with sêlê/B, see t., below.

t. sêlê/B (purposive). When a preexisting situation occasions an action or event, the causal bô-...mâkñêyat is used. When the action is performed for a not yet existing, future cause, one uses the purposive
The pronominal counterpart is \( L \) when the action is profitable to the person or cause ('for the sake of', 'for'):

(26) \( (sə)lə-wəndəmmu mətə-liət \)

'he died for his brother'

or:

(27) \( sələ agəru mətə-liət \)

'he died for his country'

(28) \( (sə)lə-abbatu mətə-liət \)

'he came for his father' (to help him or to replace him)

These are three instances of resumptive pronoun. When there is no idea of profit involved, \( B \) is the adpronominal purposive:

(29) \( (sə)lə-guddayu mətə-bbət \)

for=the-business he-came=in-it

'He came for the business'

u. \( sələ/B \) (topical). In free variation with \( bə-...ləy \) (l. above), \( sələ \) can be used as a topical.

v. Discussion. There exists a certain amount of optionality in the Amharic verbal government system when the complement relation may be interpreted in different manners. For instance, with the verb ŋəsəsə 'to flee', either the accusative case or \( kə- \) are possible (with 0 as pronominal reflection). This means that the idea of 'away from' inherent to the verb may be used by the case-marking rule alternatively to the object case (which has an application analogical to the object case of 'to leave'). Sending a letter may have \( wədə \) or \( lə- \) (but always \( L \) because either the idea of approach or that of destination may be picked up by the case rule. With dərrəsə 'arrive', the place of arrival may be marked by \( kə- \) for completed approach, or by \( wədə \) for approach in general, since completion is implied by the verb anyhow.\(^8\)

---

\(^8\)In the Addis Ababa colloquial, only \( e- \) (fn. 3) is used with dərrəsə.
Let us consider the following quasi-paraphrase relation. The verb እሸንሮ 'to reveal, explain' governs እስ/ራ for the interlocutor, whereas የኖጉር እሸንሮ 'to say' has እስ/ራ. Now, in:

experiencer, but the experiencer has no effect on the subject, hence $\star 3 - 0$.

2. **The origin of the asymmetrical correspondences.**

One may wonder how such a complex system has come about. If a unit is composed of two classes of variables, the first class containing 8 members and the second 4 (including $\emptyset$), we can end up with 32 compound units. The economy is obvious. The system described in Table 1 makes use of 20 of these 32 possibilities. Nevertheless, it would be absolutely wrong to think that the system was created through a random grouping of the elements together in every possible combination, so as to obtain maximum use out of the atomic components. Let us first take a look at the diachrony, that is, how this state of affairs may have been created in the history of Ethiopic.

The first step must have been the blocking of free pronominalization, by enclitizing the three sets of pronouns $O$, $B$ and $L$ in a strict morphological arrangement. This created a discrepancy between adnominal (quantitatively free) and adpronominal (threefold only) case-marking. However, such a blocking is conceivable in a situation where the idea of asymmetrical correspondences can rely on some precedent.

There are two natural sources for the creation of asymmetrical correspondences, one involving a language universal, the other a general fact in Semitic.

In several unrelated languages one finds that part of the dative complements may, in certain conditions, assume the same shape of a 'direct' object. For instance, in English:

(33) I gave a book to the boy

can be paraphrased by:

(34) I gave the boy a book

where the dative complement, brought directly next to the verb, has no explicit case marker on the surface. It is quite impressive that Indonesian has the same phenomenon: the above two sentences can be translated into it as:
(35) saya membalikan buku kepada anak itu
'I gave a book to the boy'

and

(36) saya membalikan anak itu buku
'I gave the boy a book'

respectively. In the latter, the dative preposition kepada is no more necessary as anak itu 'boy that' has been brought next to the verb. I have the impression that the admissibility of 0 suffixes in Amharic for pronominal counterparts of l8-complements (dative-experiencer) also obeys the same general tendency. It can be proved that this 0 suffix is formally different from the 0 suffix denoting regular accusative objects. In Amharic, a verb can admit one pronominal suffix only. If there should be two, one of them is omitted [Hetzron 1966:95-6]. There is no clearcut hierarchy of pronouns determining which suffix can be deleted in favor of another. Two things can be established with certainty: first and second person suffixes have priority over third person ones, and an 0 suffix corresponding to -n occupies the lowest position and yields to all the other suffixes [Polotsky 1960:120]. An 0 corresponding to l8- may drive out an accusative 0 (but never vice-versa), since it has the same footing as B and L in the omission rules.

The other source of asymmetrical correspondences is the adoption of the preposition kā- 'from' into South-Ethiopic. Most probably it is a borrowing from Cushitic. Somali has ka 'from' and Bedauye a comparative ka 'more than' (which is elsewhere expressed by the same marker

---

9Geez has, beside the accusative in -5, an 'analytic' way to express object relation: የ.querySelector ይወስ ሰወወ 'he saw the man' with the accusative ending (-l + -5 = -e), vs. የ.querySelector ይወስ ሰወወ 'he-saw-him to=man', with obligatory presence of an object pronoun and a dative prefix before the noun [see Schneider 1959]. In Geez, both constructions render the same case relation. In Amharic, l8-/0 is used in a sense different from both -n/0 and l8-/l, and there is no obligatory resumption as in Geez.
experiencer, but the experiencer has no effect on the subject, hence \( l\overline{\alpha} \cdot 0 \).

2. The origin of the asymmetrical correspondences.

One may wonder how such a complex system has come about. If a unit is composed of two classes of variables, the first class containing 8 members and the second 4 (including \( \emptyset \)), we can end up with 32 compound units. The economy is obvious. The system described in Table 1 makes use of 20 of these 32 possibilities. Nevertheless, it would be absolutely wrong to think that the system was created through a random grouping of the elements together in every possible combination, so as to obtain maximum use out of the atomic components. Let us first take a look at the diachrony, that is, how this state of affairs may have been created in the history of Ethiopic.

The first step must have been the blocking of free pronominalization, by encliticizing the three sets of pronouns \( O, \beta \) and \( L \) in a strict morphological arrangement. This created a discrepancy between adnominal (quantitatively free) and adpronominal (threefold only) case-marking. However, such a blocking is conceivable in a situation where the idea of asymmetrical correspondences can rely on some precedent.

There are two natural sources for the creation of asymmetrical correspondences, one involving a language universal, the other a general fact in Semitic.

In several unrelated languages one finds that part of the dative complements may, in certain conditions, assume the same shape of a 'direct' object. For instance, in English:

(33) I gave a book to the boy

can be paraphrased by:

(34) I gave the boy a book

where the dative complement, brought directly next to the verb, has no explicit case marker on the surface. It is quite impressive that Indonesian has the same phenomenon: the above two sentences can be translated into it as:
with the same category of complement actually represents two independent features the addition of which makes up the complement relation.

Let us review the morphemes involved and see whether they each can be attributed a meaning independently of what their counterpart may be in a [-a pronoun] context.

a. **Subject: participator.**

In Amharic, the category of subject may also be defined in semantic terms.\(^\text{12}\) We can call it a **participator** in that it takes part in the action or activity, either by triggering it, or by performing it, or else by actively reacting to it. The last sense is necessary for verbs like 'fall' (wəddəqə) where the falling may have been caused, triggered by a factor distant from the subject, but the person who falls assumes a falling position, his muscles performing instinctive movements attempting to regain balance. Likewise, a falling object is changing posture (e.g. is turning) during its descent. We shall see that the object does not 'participate' in the activity in the same sense as the subject; it is rather subjected to it, transformed by it, etc. Thus, the subject must assume a somewhat superior position, preserve some degree of independence of its own with relation to the action of the verb.

Amharic has no instances of 'nominative of patient' where the subject does not participate in the action at all. The verb እስቀበስ which is sometimes translated by 'receive' is in fact 'accept', i.e. reacting positively to the act of giving. 'He received a prize, but did not accept it' can be idiomatically rendered in Amharic by

\[(37)\]  

\[
\text{\textit{yətəsə]-w-n ያለማ trä እስቀበስ]-w-m}}
\]

'he did not accept the prize that was given to him'

or by

\[^\text{12}\text{Against Fillmore [1968:17], but also against the concept of 'subject-of' [Chomsky 1965:68sq.] as a mere grammatical function. These approaches may have some justification for English and other languages, but should not be part of general grammar.}\]
as the ablative). Even though an ablative preposition is well attested in many Semitic languages, the use of the locative-instrumental also as an ablative is a well-known phenomenon in Semitic (Akkadian ḫa, Ugaritic b-, and, in the Ethiopian domain, Harari -be). It is possible that the original ablative preposition was in Proto-Amharic bē-, whose pronominal counterpart was naturally B, and when kē- was borrowed from Cushitic, it replaced the adnominal ablative use of bē-, but not the adpronominal one.

The 0 pronominalization of ḫ3-complements was probably not strong enough to trigger the development of an asymmetrical system like the one in Amharic, since the 0 suffixes representing ḫ3- have maintained some independence from the 0 standing for the accusative. However, the adoption of kē- for nouns, together with the maintenance of the older B pronoun suffixes, was a very good precedent for asymmetry, and the language started taking advantage of this possibility.

3. The meaning of Amharic cases.

As pointed out above, it is improbable that Amharic merely took advantage of the liberty of coupling adnominal and adpronominal case-markers at random in order to obtain a maximum number of composite units. It is easy to perceive that most uses of kē-, whatever their pronominal counterpart, have something in common, they all indicate origin (esp. the sentences of (1) and (2)). Similarly, in the combination bē-...lay/l (benedictive), it is obvious that L has a meaning of its own, indicating that the action or event coming from above is beneficial to the patient, a meaning 'to the benefit of' which it shares with its use as a counterpart of ḫ3- in symmetrical correspondences. The L and B counterparts of (ṣe)ḥ (purposive) and ṭēdē (directional) also have their common denominators. This suggests that the dual case-marking system of Amharic is after all an atomic system; each morph, preposition or conjugated suffix, has its own meaning. The combination of two cases

---

10 Ultimately, this kā may be related to the Semitic ḫ- 'like, as', but I find it unlikely that Amharic kē- be directly descended from it.

11 Let us note that kē- alternates with ṭē- in Amharic, the latter form being the only one used in the Gurage languages. The alternation k → ṭ is well-known in Cushitic.
used.

When there is no conceivable or recognizable participator associated with the content of the verb, it will appear subjectless. Such is the case for 'having pain' in general. 'I have a headache' is rendered by

\[
(44) \quad \text{rase-n yammā-হā-all} \\
\text{my-head=Acc. it-hurts=me=Aux} \\
'I \text{ have a headache}'
\]

where the person in pain is only indicated by a possessive on the part of the body and by an 0 suffix on the verb. The person in pain cannot, in this case, appear as a noun within the sentence, - it can only be mentioned in an extraposition:

\[
(45) \quad \text{kēbbādā, rasu-n yammā-w-all} \\
\text{Kebbede, his-head=Acc. it-hurts=him=Aux} \\
'Kebbede \text{ has a headache}'
\]

This shows that, curiously enough, the suffering person can become an object only if a participator-subject is mentioned.

There are verbs which can hardly be associated with any subject. The verbs rabā 'to be hungry', ṭāmma 'to be thirsty' are such. They appear in subjectless constructions, the hungry or thirsty person being expressed by an 0 pronoun or, if a noun is necessary, in extraposition:

\[
kēbbādā, \text{rabā-w/ṭāmma-w} \quad '\text{Kebbede, it-hungered=him/it-made-thirsty=him}'.
\]

In addition to participatorship, a subject must be specified for \[+\text{willfulness}\]. In many cases, the distinction between the two values is not expressed on the surface, but it is necessary to take care of sentences like:

---

\[13\] Eventually, one may use the form wāḥa ṭāmma-w 'water made-thirsty= him', but wāḥa is an entirely empty element, it cannot be replaced by the name of any other drink or even with another general term like ṣāṭā ṭāṭ 'drink'. At the first glance, this wāḥa looks like a cognate subject, but most probably it is a cognate instrumental. For generic instruments with no case-marker preceding the verb, see Hetzron [1963: 432-3] and Polotsky [1966:246-7].
'having found [ ~ come across] a prize, he did not accept it'

On the other hand,

does not mean 'he did not want the prize he received', but 'he did not want [anymore] the prize he had accepted', i.e. first active acceptance, then change of mind.

The one to whom something happens cannot be a subject, unless reaction to the happening is implied. The one who falls is the subject of 'fall' for the reasons suggested above. It is possible to say:

for the same reasons. However, for 'the man slipped', i.e. lost footing, expressing only the loss of control and not the person's reaction to it, 'the man' will be an object, and the eventual subject (not necessarily selected) the thing which causes the slip:

or likewise

'The mead gave AlJaaz a headache'

When the cause of the pain is not mentioned, another construction is
form (in \( tS- \)), passive constructions, always without an agent, are replaced by the so-called impersonal form\(^{16}\) in which the original object remains an object, but the use corresponds to that of the passive in Amharic.\(^{17}\) The impersonal is used not only when the subject is unknown or unspecifiable, but also when the participator which could be a subject is known but not mentioned for stylistic reasons. Leslau [1967:1151] adduces the Chaha (Western Gurage) example:

\[
(47) \quad \text{wëhe warim baräm tīgāsa}
\]

well one-spent-the-night- (?) he-said-and when-he-entered

'when he entered saying "did one spent the night well?"'

Here a person is addressed, and the 'literal' translation 'one spent the night' is very awkward, as it unquestionably stands for 'you spent the night'. However, if we render it by an English passive 'how was the night spent?', we have the stylistic equivalent of the Chaha phrase. The impersonal by no means expresses generality of the subject, like English 'one', but is a way of forming passives without making the original object into a subject, which would violate the semantic definition of the subject. Thus, the data from related Northern and Western Gurage languages (whose case-system can be formalized along the same lines as Amharic) suggest that Amharic does exhibit an instance of arbitrary, nonsemantic use of a case.

Another case in point is the verb \( tazzāzā \), composed of the passive formative \( tā- \) (\( t- \) before vowel) and \( azzāzā \) 'give order'. In addition to its being a transformationally obtained passive of \( azzāzā \), 'to be given order(s)', it can also render English 'obey'. The difference between the two senses is that the first has a semantically unmotivated subject (a former object), while in the second, the introduction of the normal subject feature [participator] makes it 'obey'. Obeying is becoming an active participator as a result of having been given an order.

\(^{16}\)It comes from the old third person plural forms, 'they...'. There is also Cushitic inspiration behind this development. Somali has a passive derivative which is used independently of the impersonal, a morphologically active form having as its subject the impersonal pronoun \( la \).

\(^{17}\)Italian has similar forms, see Jespersen [1924:161].
(46) säwayyäw beʔer säbbärrä
  'the man broke a pen'
as referring to either inadvertent or intentional breaking.\textsuperscript{14} Such a distinction is expressed by the verb on the surface in the case of waäänä 'swim' [+\textit{willful}] vs. täänsaffäfä 'float' [-\textit{willful}]. This feature can also take care of the distinction between factitive and permissive ('to cause to do' vs. 'to let to do', cf. Hetzron [1963:436-8]): Inanimate subjects are necessarily [-\textit{willful}].

A weak point in the definition of the subject is the passive construction. The subject of the passive is the same as the object of the corresponding active verb. It seems that there is no reason to claim that the semantic information contained in an active verb is in any way different from that of its passive counterpart. The only difference lies in the orientation, in the fact that in an active verb the object can often be omitted as being irrelevant for the communication, whereas a subject can be omitted more easily in a passivized form where the grammatical subject is the object, and the former subject, the agent complement, is omissible. Otherwise, the semantic components of both the active and the passive forms of the same verb, e.g. bääla 'to eat' and tääbääla 'to be eaten' seem to be exactly the same.\textsuperscript{15} The only solution to this problem is to assume that the passive constructions are transforms of the active ones, thus the semantic definition is not necessary for such secondary configurations. Here Amharic has adopted an instance of arbitrary case-marking.

This assumption is supported by comparative data. In other South-Ethiopic languages, namely in Northern and Western Gurage, even though these languages do possess a passive derivative related to the Amharic

\textsuperscript{14}To make this distinction explicit, after the subject sayawq 'without knowing' ("unintentionally") or awqo 'knowing' ("on purpose") can be respectively inserted.

\textsuperscript{15}This confirms Martinet's reasoning [1965:216-7] according to which a system where a predicate needs no subject (Basque in his study, but this is also true in a way for Amharic), but has complements only, should have no 'voice' (active vs. passive). Amharic inherited voice from its Semitic ancestry, but it looks somewhat out of place in its present complement system.
It primarily indicates the success of the action whether actually happening or potentially conceived. It really means 'the key is fit to open the door', that the given key is the proper instrument for performing the action independently of who would turn it. It is thus a participator in the potential opening, as it makes it possible, but an instrument of the real opening.

Let us consider the following four sentences:

(54a) The door opened
(54b) The janitor opened the door
(54c) The janitor opened the door with this key
(54d) This key opened the door

Fillmore [1968:27] attempts to give a unified representation of the uses of open in all the four cases through the 'frame feature' +[____Objective, (Agentive), (Instrumental)]. This representation may describe the surface verbal word [open], but nothing else. A theory which claims to be universal should recognize that in (54a) and (54b) there is derivational syncretism, such as drop/drop synonymous with fall/fell. In Amharic, the verb of (54a) is ከቁስቁስ, a passive stem, and (54b) ከቁስቁስ. Someone with an Anglocentric viewpoint may claim that in the cases where there exist different verbal stems, the selection of the lexical item depends on the presence/absence of an agent, thus open is the typical case, not fall/fell. This, however, would not work in reality. Sentence (54b) above entails (54a), but (54a) presupposes no human agency (only tolerates it), consequently they refer to different events. Their relation can be compared to the case of 'receiving' which presupposes 'giving', but 'giving' does not entail 'receiving' because non-acceptance is also a possibility. Furthermore, Fillmore seems to imply that (54a) is constructed because no

---

18In fact, combining the surface verb with deep case categories in the same formula constitutes a dangerous mixing of levels. A verb like English deliver could, by the same technique, be represented as +[____Agentive, Objective ((Ablative|Terminal)) ] containing both the meaning 'set free, save' and 'carry goods to destination'.
As I also intend to deal with more universal implications of the Amharic case-system, I would like to make one more point. Amharic, like English, has constructions like:

(48) **säwàyyàw bàrru-n bē-qlfu ḳāффētà**

' the man opened the door with the key'

vs.

(49) **qlfu bàrru-n kāffētà**

' the key opened the door'

Fillmore [1968:33] pointed out that if, in his system, no Agentive is present, Instrumentals (here 'key') will assume the function of grammatical subject. If Instrumentals can become subjects also in Amharic, the suggestion that the subject has its own semantic definition seems to be wrong. But it is not. However attractive Fillmore's proposal may be, it has to be rejected. Let us first note that whereas we have the pair

(50) The man cut the painting with a knife
(51) The knife cut the painting

(also in Amharic), with an instrumental apparently becoming a subject, there is no such pair for

(52) The man painted the picture with a brush
(53) *The brush painted the picture

We have to make a clear distinction between instruments of creation and instruments of destruction. Instruments of creation such as a brush require constant handling by the agent, hence they cannot become subjects. Instruments of destruction only require triggering, then they may follow their own course in destroying the condemned object, guided by inertia, gravitation, etc. Therefore, such instruments may be participators in one sense, and it is by virtue of this feature that they may become subjects when the agent is not mentioned, not just because they are instrumentals. The case of He opened the door with a key/The key opened the door is more complicated. The first sentence refers to an actual act of opening, but the second not necessarily so.
dictable course), such as 'key' and 'open', or 'glue' and 'make stick'.
It is possible to say

(59) The man opened the door with the key

and

(60) The key opened the door

but

(61) The man opened the door with a chisel

has a non-cognate instrument, hence the impossibility of

(62) *The chisel opened the door

(2) Instruments of destruction, where no organized action is assumed.

(63) The man cut the picture with a knife

is acceptable (it may denote either a voluntary or involuntary act), as well as

(64) A knife cut the picture

(noncommittal as to the presence of human agency in English and potential in Amharic), but beside

(65) The man painted the picture with a/the brush

a constructive action, there is no

(66) *A/The brush painted the picture

as the brush requires constant manipulation by the artist.

(3) Inalienable instruments, where an entity performs an action through one of its components. It is possible to say (also in Amharic)

(67) The man broke the window with his fist

as well as

(68) The man's fist broke the window

The two sentences are not equivalent because, here again, the latter
agent happens to be present in the sentence. However, English (but not Amharic) distinguishes between The door opened and The door was opened. The first presupposes no agent, whereas the second does, even though it is not mentioned.

I feel that in (54b) and (54c) above the same verb open is used (even though only (54c) implies unlocking, but this is really a consequence of the presence of an instrument). But the most important — and for Amharic the only — reading of (54d) contains another open. The example:

(55) He had a key which opened the front-gate, but he never used it clearly means that the key was capable of opening the front-gate, but it never became an instrument of opening. In Amharic,

(56) qīfu bārru-n kāffātā

'the key opened the door'
unequivocally means 'this key is good for this particular door' and cannot be used like English

(57) A key was opening the door

when only the turning key is observed by the story-teller, and not the agent. In Amharic, even an instrument of destruction may be used as a subject only in the potential sense. The sentence:

(58) sāntīw wārōqātu-n qāddāqā

'the knife cut the paper'
has only one interpretation: 'the knife was good enough to cut the paper'.

It appears that there are three types of cases (in English as well as, with a potential sense, in Amharic) where instruments which occur as instrumentals with a given verb may also appear as the subjects of the same surface verb. These are the following:

(1) Cognate instruments, where the instruments are typically used for the performance of what particular act, with a predictable course of action (such as key turning in the keyhole, to exclude brushes which might be typical instruments of painting, but follow an unpre-
In order to determine the character of the accusative complement in Amharic, then, one cannot have recourse to the same criteria as for the other complements. One may even wonder whether it is definable at all, or else it is just a matter of arbitrary, idiosyncratic behaviour of lexical verbs. It seems to me that there is a possible notational definition for the object case in Amharic.

Let us try to classify the main uses of the object case in this language. The following subcategorization is impressionistic; further investigation is necessary to find out whether it is justifiable or not. First of all, there is a category which might be called trans-figurative. This involves object-entities created, transformed, or destroyed through the action of a verb. The other important class is transferential, the entity displaced, relocated through the activity of the verb. The third major class is attestative, entities attested, known, perceived, etc. through the action of the verb. There is sentimentive, where the object of feelings expressed by the verb is its grammatical object. Another case is that of 'leave', 'abandon', where the subject is moving away and the object stays. This multiple subcategorization, for whatever it is worth, is rather a reflection of the semantic verb classes which take objects, and does not characterize the object relation itself. But now it is easy to see the trait that unites them. They all refer to the knowledge or image the speaker has about the entity in question, its shape, substance and status (trans-figurative), its location (transferential), sources of this knowledge (attestative), feelings about it (sentimentive), etc. Thus, an object is defined through its relation to the speaker's knowledge of the world.

I have interpreted above 'writing a letter on a paper' as 'transforming a paper into a letter'. On the other hand, this could also be reinterpreted as 'making a letter out of a paper'. In fact, English 'to present' has on the surface such a dual possibility: its object may either be the beneficiary ('to present someone with something') or the gift ('to present something to someone'). In the face of such conflicting analyses, the object is selected according to what the speaker
328

does not necessarily imply that the man was the human agent behind it. The man's fist may have been pushed into the window by someone else. 19

b. Object: redefinition.

Unlike all the other cases, the object case does not indicate the nature of the logical relation between verb and complement. In fact, several such relations may exist between verb and object. For instance, in verbs of utterance and knowledge, the object has exactly the same type of relation with the verb as a topical complement. Thus, 'to know something' expresses having knowledge about something. It is remarkable that in order to be an object there needs to be a direct relation between verb and complement. 20 'To know about something' expresses knowledge about knowledge about something, an indirect relation. Similarly, 'touching something' is laying the hand or other part of the body upon something, 'seeing something' quite clearly has a locative connotation. In 'writing a letter' we may find a logical relation which is expressed in many languages by the translative case, namely 'writing a letter on paper' as 'making a paper into a letter'. The locative, instrumental, etc. correspondences of the accusative in Hungarian have been the object of an interesting monograph by J. Zsilka, now available in English [1967].

19 As far as the last type is concerned, it clearly shows that Fillmore was wrong in claiming [1966:23] that the incorrectness of *The car broke the window with a fender vs. the correct The car broke the window with its fender and The car's fender broke the window can be explained by assuming that these sentences are 'agentless' and that the car's fender constitutes the instrument. Above, the man is clearly the agent, yet it is impossible to say in English *The man broke the window with a fist. This follows from a rule concerning inalienable possessions, which has nothing to do with case status in the sentence. Hungarian, on the other hand, has no such rule, and Az ember űsőlve/ösklevelet ès törte az ablakot 'The man with-fist/with-his-fist broke-it the window-Acc.' is grammatical with or without a possessive.

20 Martinet [1965] defined the unmarked case of Basque (object, or subject of intransitive verbs) as indicating the most direct relation with the verb. This relation is 'unspecified determination', independent of logical relations. This is also true for what I call 'redefinition', see below.
the verb will be its grammatical object. In 'have' one may learn about
possession that started earlier. In the latter verbs, one is not dis-
covering pre-existing facts, but learning about a change of status.
Redefinition is substantial, not merely an improvement or extension of
knowledge.

An apparent contradiction to this principle is the case of our sentimentive, with verbs such as 'like', 'hate', which are stative but still
have an object. However, feelings are potential, they are not experi-
ienced constantly; they need be remembered in order to be felt. A state-
ment with the sentimentive is bringing forth these feelings, not dis-
covering them. This is comparable to our attestative type.

Amharic has also instances where the object case alternates for the
same complement with another, relational case. 'To flee' is šašša and the person who is fled from may either be redefined as fear-inspir-
ing (sentimentive), using -n, or merely be designated as a locative de-
parture point, when ka- is used. In the case of sources of acquisi-
tion, beside:

(73) kāš-zzičč set lay and māšaf gāzzahw(-a†)
      from=this woman on one book I-bought(=her)

'I bought a book from this woman'

it is possible to say:

(74) yāhečč-an set and māšaf gāzzahw-a†
      this-Acc. woman...

'I bought a book from this woman'

with object suffix and an obligatory 0 resumptive pronoun. The first
construction (73) describes the woman as the origin of the book, while
the second points out that the woman managed to give the book away, she
does not own it anymore. kāš- and -n further alternate (under the same
conditions) in comparative constructions, attached to entity A against
which B is measured. -n expresses the idea that our image of A has also
changed, as we know how it relates to B (more or less than B in some re-
spect); and kāš- is the neutral expression of the fact that some attri-
considers worth redefining. This is a subjective process comparable to what was meant by the term 'topicalization' in recent works. The fact that a letter has been created is often more important than the fact that a piece of paper has been altered. But the latter may be given enough emphasis for redefinition in the Hungarian verb *teleír 'fill with writing', with the paper as the object. In the case of the verb 'to present', the two constructions represent a difference in the focus of the communication. In

(69) I presented him with an award

'he' will be redefined as an award-winner. In

(70) I presented an award to him

the award is redefined as belonging to 'him', an award has been assigned. Fillmore [1968:48, fn. 49] illustrated this point very convincingly:

(71) He sprayed the wall with paint

redefines the wall as being entirely covered with paint as a consequence of the action, but

(72) He sprayed paint on the wall

implies nothing about how much of the wall has been covered, but redefines paint as being applied on the wall. Thus, the selection of the object, within the conditions specified above (direct relation, modification of the speaker's knowledge about it: redefinition), depends on the context, on the speaker's intentions, to a great extent.

Redefinition always means change, either of shape (transfigurative) or location (transferential) or references (attestative) or making feelings explicit (sentimentive), but it is not identical with discovering new, pre-existing data. This can be clearly shown by confronting two verbs with similar content, one stative and the other not. For the expression of 'to have' Amharic has *ällä. The item possessed is the subject of this verb, as it is primarily a verb of existence. On the contrary, in *gëzza 'buy' or *agëmëñ 'find, obtain', the object the possession of which is secured through the action of
redefined, but are not participators. Subjects of intransitive verbs are both redefined and participators. In the ergative languages, the feature [redefined] is first spelled out in the shape of a usually unmarked case, and the remaining participators (the subjects of transitive verbs only) get ergative. In nominative languages like Amharic, first the feature [participator] is spelled out in the shape of the unmarked case (nominative), and the remaining instances of [redefined] (objects only) get the accusative.

d. 0 suffix: straight effect.
An examination of all the case exponents indicates that the adnominal and adpronominal cases constitute two separate semantic classes. Suffix pronouns always express the effect of the verb on the complement.

The main meaning of the 0 suffix is immediate involvement in the action or event expressed by the verb. In the cases of the -n/O correspondences, where -n represents the object case, the use of 0 is automatically entailed, in agreement with the semantic definitions of -n and 0. -n depends on the condition that the relation between verb and complement be direct (b. above), and this is precisely what 0 is meant to express.

The preposition ḥ- has 0 as its adnominal counterpart in the dative for the beneficiary and the experiencer. Transfer of property directly involves the recipient, since transfers presuppose a source and a target. Similarly, the experiencer is directly involved in what the verb expresses, since it refers to his judgement, needs, feelings, to an effect on him. This justifies 0. The source of acquisition is as directly involved in a transfer as the beneficiary, hence 0 (in ḥ-//O ). The mediator of a factitive has -n when he is an active part in the action, since he is redefined as being under the influence of the subject of the causative. If the mediator is a mere instrument in the hands of the subject, it will have bȢ-. However, in both cases it is absolutely clear that the mediator is directly involved in the act of causation of which he is a complement. Therefore, 0 suffixes are used in both cases.

e. L suffix: ascending effect.
The main meanings of this suffix are 'to the benefit of' (benefactive
but attested both in A and B is measured taking the amount found in A
as the norm, i.e. departing from A.

A further proof that semantic relations determine the subject-object
distribution can be found in the verb aggaţţămē 'to meet'. In European
languages, the protagonist is the subject of the verb 'meet' and the new-
comer its complement, direct object or comitative. In Amharic, quite
on the contrary, the protagonist is the object and the newcomer is the
subject. This can be justified on the grounds that the newcomer is the
one who performs the act, i.e. he appears, to create an encounter. He
is the participator, whereas the protagonist is found by the newcomer,
he comes into his field of vision (attestative). Thus, Amharic renders
'I met a man' as:

(75) sēw aggaţţămē-řň
     man stumbled-on=me

c. Intransitive verbs.

One might say that in the case of the verb wēddāqā the subject is
transferential in the sense 'fall', and in the other senses, 'crumble',
collapse', it is transfigurative. It thus should be an object, as it
is directly affected by the action. Likewise, there is transfiguration
of the subject in mōtā 'die', transference in hedā 'go', attestation
in baqqalŠ 'appear', both transference and attestation in mēttā
'come', etc. In other words, the subjects of intransitive verbs undergo
the same epistemological modification as the objects of the transitive
verbs. All the same, it is also true that the subjects are also participa-
tors, the transfigurative and transferential, etc. changes are often,
so to speak, self-inflicted or are accompanied by active reaction. In
the case-rules, it is the feature [participator] that prevails. We can
state in general that the subjects of intransitive verbs are also re-
deфинined like objects, but they are also specified to be active participa-
tors, while objects are not.

Such a concept can be used for the description of the difference be-
tween the so-called ergative languages and the nominative ones. Subjects
of transitive verbs are participators, but not redefined. Objects are
L expresses the fact that he can reject or accept the approach at will. The place approached, on the other hand, can have no reaction to it, hence the use of B. The preposition is wāḏān in both cases. With the verb lākā 'send' [Hetzron 1966:33],

(76) ʾaškāru-n lākā-ḥāʾēn (with L)

means 'send me the servant!' (for my own use), whereas

(77) ʾaškāru-n lākā-bbaʾēn (with B)

merely requests that the servant be sent to my place. Particularly instructive is the contrast between

(78) ṭārāqāʾ lākā-ḥāʾēn

'he sent me a letter' (L)

and

(79) mūšakāt lākā-bbaʾēn

'he sent me a message' (B)

A letter is supposed to be accepted, opened and read by the addressee (which he may refuse to do); this justifies L, the ascending effect. The oral message, on the other hand, is given directly to the recipient who remains passive, subjected to a flow of sounds emitted by the messenger. This justifies B.

The purposive (ṣālāḥ (see l.s.-t., above) can also occur either with L or B. As shown above, if a person or cause profits from the action, i.e. it has a delayed and eventually prolonged effect on him/it, L is indicated. If the action is performed in view of settling some business, it is imposed on the business which is, consequently, marked by B.

g. ʿašŠ.- aim.

The following (adnominal) cases mark the manner in which the verb relates to the complement. The preposition ʿašŠ.- indicates for whom the action is performed, or in relation to whom the event can be judged. It may show in relation to whom a piece of knowledge exists ('is known to'). The object of ʿašŠ.- is the intended or fortuitous target of the action
and benedictive), 'intended for', 'for' (destinative, purposive of one type) and 'affecting the whole through a component' (either by doing something to a component such as cutting someone's fingernail, see l.f. above, or by extracting a component from the whole, as in l.o. above).

In the first two interpretations, the entity marked by L has something put at its disposal, it obtains something. It is not directly involved in the performance of the action; there is always some delay, some distance between the action or event and the L element. The third sense may also be assimilated to the first two through considerations of distance. After all, if a component is affected, the whole suffers its consequences. This effect is also delayed, as it is directly exerted on the component, but is experienced by the larger entity. The L is always on a higher plane.

f. B suffix: descending effect.

All the uses of the B suffix can be summed up under the heading 'patient'. B may refer to the person to whom the action or event is detrimental, to the one on whom obligation is imposed, to the place, time or instrument of the activity (which are passively involved), to the topic of the utterance. In all these cases the patient-object is passively involved in the action or event, no initiative is expected from it, it only receives or suffers (willingly or not) what is going on. In order to use a uniform terminology, I call this descending effect, since the action or event descends upon the patient from a higher plane. The effect is not straight (i.e. on the same plane) as in L, nor is the patient in any way free to choose whether to take advantage of the effects of the activity (as in L of the first type). It/he is entirely involved, not only one of its components (as in L of the second type). The element marked by B is 'at the mercy of the subject of the verb'.

Let us compare some cases where both L and B may be used with the same verb and the same adnominal case. If a person is approached,

---

21 The importance of the beneficial meaning of L has been exaggerated in the literature. Cohen [1936:145] more carefully states that it indicates simply attribution.
L expresses the fact that he can reject or accept the approach at will. The place approached, on the other hand, can have no reaction to it, hence the use of B. The preposition is ￦hদব in both cases. With the verb ￨কা 'send' [Hetzron 1966:33],

(76) ￨কৃর-লক-|-বন (with L)

means 'send me the servant!' (for my own use), whereas

(77) ￨কৃর-লক-|-বন (with B)

merely requests that the servant be sent to my place. Particularly instructive is the contrast between

(78) ￦কৃক-লক-|-বন

'he sent me a letter' (L)

and

(79) ￦কৃক-লক-|-বন

'he sent me a message' (B)

A letter is supposed to be accepted, opened and read by the addressee (which he may refuse to do); this justifies L, the ascending effect. The oral message, on the other hand, is given directly to the recipient who remains passive, subjected to a flow of sounds emitted by the messenger. This justifies B.

The purposive (সেলা) (see l.s.-t., above) can also occur either with L or B. As shown above, if a person or cause profits from the action, i.e. it has a delayed and eventually prolonged effect on him/it, L is indicated. If the action is performed in view of settling some business, it is imposed on the business which is, consequently, marked by B.

g. ￨-: aim.

The following (adnominal) cases mark the manner in which the verb relates to the complement. The preposition ￨- indicates for whom the action is performed, or in relation to whom the event can be judged. It may show in relation to whom a piece of knowledge exists ('is known to'). The object of ￨- is the intended or fortuitous target of the action
or event. Thus, giving away is directed at the beneficiary. The experi­
ence is the one with respect to whom the judgement contained in the
verb is valid. Since these two are also directly involved, suffixal 0
is used. In the case of the benefactive and destinative ('sell',
'allow', 'answer', etc.), the action is also directed toward the 13-
element, but its effect is felt on it/him somewhat later (L). The same
delayed effect is also true for the addressive/effectual 13-/B, but the
target of the action becomes a patient. The purposive (s3)13- also
imparts the idea of directedness.

h. 13—: medium.

I use the term medium in its physical sense, the substance or object
through which the activity is carried on. If 13— is attached to a
noun marked as [place], it is interpreted as a locative. Following a
suggestion by Ruvet [1969], I consider the postpositions 'lay 'top',
'tac 'underneath', etc. as [place] nouns, so that in a construction
such as: b3-13ðṛeza lay 'on the table', the word for 'table' is a
genitiveal adjunct on lay. If it is replaced by a pronoun, another
genitiveal form, a possessive, is used: b3-lay-u 'in=top=its' ('on it'),
or with a curious reduplication: b3laryu lay. If the preposition is
attached to a noun marked as [time], it is interpreted as a temporal.
Attached to a noun of another type, it is interpreted as an instrumental.22
The fact that 'instrumental' and 'locative' are closely related to each
other can also be demonstrated in English. The neutral

(80) He came by car

can be paraphrased, with some difference of incidental meaning, by

(81) He came with a car (instrumental)
or

22The Addis Ababa colloquial is breaking up the direct surface rep­
resentation of this global category. The often used preposition 3—
(fn. 3.) tends to replace 13— in the locative sense only.
(82) He came in a car (locative)\textsuperscript{23}

Using the same preposition for the locative and the instrumental is a general feature of Semitic. It is also reflected in Amharic derivational morphology. Nominalizations of the pattern mā- + Jussive stem + -ya represent both meanings. The form māsəb˘rəya either refers to the 'place' or 'instrument of breaking', both derived from sābbərə 'break'. Using the same case-markers for locative and temporal expressions is widespread.

The agent of the passive, as well as the passive mediator of a factitive [Hetzron 1963], is a medium for the performance of the action. Passivization probably changes a [participator] into a [medium], a transformation whose conditions remain to be investigated. Uses like 'to believe in' may be considered as a symbolic locative. 'Trusting, believing in' refers to the potentialities of the person trusted, not to what he actually said (as in 'believing his word'), but to what lies inside him, what may become manifest in the future.

i. bā-...lay: imposive.

Quite in line with its literal meaning, 'on top of', this compound case-marker can be used when the complement is considered to be on a lower plane than the subject. The subject imposes the action on the complement. In the case of the benefactive, a higher authority imposes (bā-...lay) something on a lower entity; this turns out to be beneficial

\textsuperscript{23}See further Chomsky [forthcoming:examples 23-6] where he shows that beside the possibility of paraphrasing instrumentals as direct objects with the verb use, e.g. He used a knife to cut the salami (with) ~ He cut the salami with a knife, it is also possible to say He used the table to write (on) (~ He wrote on the table). This is further feasible for temporals: He used the afternoon to finish his dissertation (~ He finished his dissertation in the afternoon). Note, however, that there is some question of magnitude involved. While instrumentals can always be paraphrased by use + NP, when the time or place belongs to another class of magnitude than the action, such a paraphrase is impossible, as in the case of He finished his dissertation in Paris/in his youth (and no *He used..., unless the dissertation involved research through entire Paris). Consequently, mediators roughly coextensive with the content of the verb are paraphrasable by use + NP + infinitive, but not otherwise. Instrumentals are coextensive by definition.
in the sense that it puts something at the lower entity's disposal (L). In the conversation-topic sense, talking about something is also assuming a higher, outside position. Sometimes, bē...lay can be replaced by simple bē-.

j. kē–: boundary.

This preposition indicates origin, departure ('from'), the element which is surpassed by, or surpasses, another ('more/less than'). It is used with verbs of 'disrupting continuity' such as 'cut', 'fold' etc., prefixed to the place-object where discontinuity is created by the action of the verb. It can also be a static locative in the sense of 'within the confines of', when being in a given place hides, delimits, distinguishes the subject. It is also used for 'leaning against something'. Finally, in apparent contradiction with the ablative meaning, it may designate a place reached. If an approach is not necessarily completed, wādē is used. kē– always implies completion, arrival. However, this use is most often redundant. There is no clearcut case where substituting kē– for wādē suffices to express completion. kē– is used with verbs like dārrēsē 'arrive', gābba 'enter' where completion is inherent to the verb. It is also used in the inherent negative senses of 'be missing from', 'stay away from', 'stop doing something'.

The common denominator of all these uses is that the complement marked by kē– constitutes a boundary of some kind. Crossing a boundary in either direction, leaving the confines of a place or entering them, or even staying within them, all require kē–. In the comparative, the element compared to is supposed to contain a definite amount or degree of the attribute compared, and passing that amount or degree in either direction is the essence of the comparative (but not of 'as...as...'). Disrupting continuity means creating a boundary. 'Absence from' indicates the confines of the area within which something is not found. 'Stop doing' is setting a boundary, a limit to an action.

---

24In Addis Ababa colloquial, the static and directional-completive uses of kē– have been replaced by ə–.
k. ʷǣᵈǣ: target.

This preposition marks the person, place or (in estimating), the amount approached. Turning, looking 'toward' is also rendered by ʷǣᵈǣ. It is further used in the transitive sense 'transform into' or 'cut into (two)'. In order to define the global meaning of ʷǣᵈǣ, we have to compare it to ʷāʼ- (g. above). First, ʷāʼ- never has a spatial meaning. It expresses the destination the subject has in mind for its action or for the object of the action. It expresses the concrete or symbolic direction in which the action starts without explicitly referring to movement. On the other hand, ʷǣᵈǣ centers on the target's position, it marks attraction toward a point. While in the case of destination (ʷāʼ-) the aim may be unreal, a complement with ʷǣᵈǣ has to represent something concrete. ʷāʼ- is an 'arrow' marking direction, ʷǣᵈǣ is a 'path' approaching a destination.

l. ʷǣ˒˒: purposive/topics.

The purposive sense has already been mentioned in ʷāʼ- above. Purposive is a 'future causal' [Dawkins 1960:114, fn. 5], a special case of 'aim' (hence the alternation with ʷāʼ-) for unspecified later benefit. The concept of 'topical' has also been discussed (i. above). The only question to ask is why the same preposition is used for both functions. The connecting feature may be that in both instances there is considerable distance between the verb and the ʷǣ˒˒-complement; they do not coexist at the same time. 'Topical' evokes something past and purposive prepares something to come.

m. Recapitulation.

The analysis given above suggests that each case-marking morph of Amharic carries its own meaning and must be assigned a distinct semantic feature. If we visualize verb-complement relation as 'something emanating from the verb and reaching the complement', we must realize that there are two sides to it: the relation of the verb to the complement and the relation of the complement to the verb. Our investigation shows that the former is translated by adnominal case-markers, the latter by adpro-nominal ones. Let us reserve the term case for adnominal case-markers
and call the adpronominal markers effects.

Assuming that the semantic features characterizing these relations have already been defined in the deep semantic structure, the following spelling rules are needed (Table 2).

For subject, see Section 6 below. The immediate implication of this arrangement is that if no pronoun is available, the features of the second part of Table 2 have no segmental realization on the surface, and vice-versa. Amharic further has a resumptive construction [Getatchew 1970] where the sentence contains both a nominal and a pronominal expression of the same complement, so that features of both parts may be simultaneously spelled out. Before establishing the general theoretical setting in which this system operates, let us deal with two specific problems.

4. Limitations of case-marking.

a. No counterpart.

In some cases, a complement can be expressed in one manner only, either pronominally (l.a.-b.) or nominally (l.h. and l.m.), but not both. If the only expression is pronominal, the coreferential noun, when missing from the normal context, may be mentioned in extraposition. Let us examine whether the above semantic analysis can account for these instances.

The agent of passive takes either bē- or, in special cases, kē-(l.m.). It cannot appear pronominally. On semantic grounds it may seem that even though the agent of the passive is the medium of the action (viewed from that angle), thus justifying bē-, or the originator of the object (for kē-), the action has no effect on it at all in the sense of 3.d.-e.-f., above. Consequently, while passivization changes the feature [participator] into [medium] (or [boundary]), it does not introduce any effect feature (which the subject never had). We have seen that the prerequisite for having a suffix-pronominal expression is having one of the effect features. In the absence of such a feature, there is no pronoun. In the case of the mediator of the factitive, the basic action exerts no effect on the former subject, but the causation element which reduces the subject to a mediator (by changing the feature [participator]
1. RELATION OF VERB TO COMPLEMENT

[redefined]  \[\rightarrow\]  \(\{\langle-n\rangle\} \setminus \emptyset\)

[aim]  \[\rightarrow\]  \(\text{la-}\)

[medium]  \[\rightarrow\]  \(\text{ba-}\)

[impositive]  \[\rightarrow\]  \(\text{ba-...lay}\)

[boundary]  \[\rightarrow\]  \(\text{kä-}\)

[target]  \[\rightarrow\]  \(\text{wädä}\)

[topical]  \[\rightarrow\]  \(\{\langle-bä-...lay\rangle, \text{salä}\}\)

[purposive]  \[\rightarrow\]  \(\langle-so\rangle \text{lä}\)

2. RELATION OF COMPLEMENT TO VERB

[straight effect]  \[\rightarrow\]  \(\text{O}\)

[ascending effect]  \[\rightarrow\]  \(\text{L}\)

[descending effect]  \[\rightarrow\]  \(\text{B}\)

Table 2
to either [redefined] or [medium]) does exert a direct, straight effect on it.

These criteria also turn out to be operative in possessive constructions. The possessor is directly involved in the possession, but is not participating in it through action or reaction. As possession is static, the possessor is not an aim, nor a medium. None of the definitions in part 1 of Table 2 applies to it. Consequently, there is no way to integrate the possessor into the sentence in a non-pronominal form.

Similar reasoning is true for the necessitative (1.b.). A person under an obligation is subjected to it, hence B. However, he is not redefined, nor aimed at by it. The feature [impositive] could eventually apply, but it presupposes a subject imposing the obligation, and in these necessitative constructions there is no such subject. The grammatical subject is a sentence, the performance of which constitutes the obligation.

The case of the detrimental is more complicated. In the sentence:

(83)  ṛlantanna laḡu muṯawūtu-n sābbārā-ḥḥāf
       yesterday the-boy the-glass=Acc. broke=in-him
       'Yesterday the boy broke the windowglass to his detriment'

the only way of mentioning the person to whose detriment this takes place, unless it is mentioned for some other reason anyhow,25 is by extraposition. Nevertheless, there are some verbs which admit a bā-...lay/B (impositive/descending) combination for the complement which apparently has the same detrimental meaning and can, therefore, also appear as a noun. Such verbs are ḍāmārī 'inflict upon' (also 'add', 'pour'), fərərə 'judge', mūsəkārī 'give testimony'.

(84)  kūbbādā bū-zzīh saw lay saqay ḍūmārī-ḥḥāf
       Kebbede in-this man on suffering inflicted=in-him
       'Kebbede inflicted suffering on this man'

25E.g. muṯawūtu-n can also be interpreted 'his window (Acc.)', and in this case the owner of the window should also be the person suffering the damage.
It seems that when the verb inherently expresses a negative effect, the complement will take the imposive $bS-\ldots lay$. When the damage is a consequence of the action but not inherent in it, the complement takes $\emptyset/B$. The action is not necessarily oriented toward the person suffering the damage, so $lS-$ cannot be used, he is not a medium of the action and does not qualify for $bS-$. None of the definitions for adnominal cases applies.

In the case of subjectless verbs such as 'have pain', 'be hungry' (3.a.), the person having the sensation suffers its direct effect, hence $0$, but is not a participator, nor is he redefined (a temporary state does not redefine); he is not a medium for another action; as there is no subject to impose, the imposive cannot be used. There remains the use of extrapolation. When the pain is the result of a concrete event, such as drinking, the person in pain is redefined as being under the effect or aftereffect of alcohol.

We can thus see that when there is no [-pronoun] counterpart to a nominal or pronominal complement, no arbitrary ad hoc rule is necessary to block it. The lack of counterpart is due to the finiteness of the case and effect system, so that none of the semantic definitions applies.

b. Obligatory pronominal resumption.

We have mentioned that in some cases a nominal complement requires the co-presence of a pronominal one (but not vice-versa, see Section 1). Such cases are $-n/B$ (1.d.), $-n/O$ which alternates with $kS-/O$ for source of acquisition (1.n.) or for 'causing pain' (3.a.), $lS-/B$ (1.g., effectual) and $bS-\ldots lay/L$ (1.k., benedictive).

The first two can be easily eliminated. $-n/B$ is a transformationally obtained euphonic variant of $bS-/B$, found only when a resumptive

26This is another instance of the distinction between organic (impositive) and inorganic (detrimental) complements, cf. fns. 6 and 29.
pronoun appears. The uses of -n/0 with obligatory resumption follows the same pattern. It is a general rule of Amharic that when a verb has two objects, one being the (alienable or unalienable) owner of the other, the owner is obligatorily recalled by a resumptive pronoun.\textsuperscript{27} Such configurations may occur in factitive constructions, with verbs of bodily affliction (person vs. part of his body), and with sources of acquisition. Such sources are marked [boundary] and [redefined]. The adnominal case-rule may select either one of these features. If the second is selected, the rule requiring obligatory pronominal resumption (when the same verb has an additional object originally owned by the source) is applied.

It is clear that there are semantic affinities between bā-...lay (imposive) and B (patient, descending effect), and between ḫā- (aim) and L (having at one's disposal, ascending effect). Historically, their function used to be identical. Although a process of divergence has abolished this full identity, they still retain a degree of similarity. Imposition usually implies descending effect. If it happens that the imposition ends up by putting something at the complement's disposal (instead of making it a patient), such a fact is explicitly marked. Likewise, if mere orientation and aiming end up as descending upon the complement, this does not go unmarked. In other words, bā-... lay is prejudicial to benefitting, but is still compatible with it. Similarly, ḫā- makes it less probable that the complement be a patient, but does not really exclude it.\textsuperscript{28} To dispel these prejudices, the pronoun expressing the unexpected effect has to be spelled out.

\textsuperscript{27}See Hetzron [1963] for examples with two objects. When there is an ownership relation between the two, the resumptive pronouns are obligatory. In the case of two unrelated objects, there is no such obligation. See also Getatchew [1970:exx. 16-9].

\textsuperscript{28}These 'prejudices' reflect older uses. These meanings of the prepositions have survived in proverbial style, e.g. [Cohen 1936:298] yānāqiu qal yāmērāt bihon bā-bāngāstu; yāmēr bihon bā-bāngāstu 'The king's word, if it is clement, [it is] for the kingdom; if it is of anger, [it is] detrimental to the kingdom'. Note that these sentences have no verb either, another property of proverbs. In normal speech, bā- cannot be used in this sense.
The prejudicial behavior of 'a case toward an effect' can be formalized within the framework of a 'theory of markedness' comparable to the one presented by Chomsky and Halle [1968]. Thus, if for a given case-marker a certain effect-marker is expected, it will be classified 'unmarked' (u) vs. the possible, but unexpected 'marked' one (m). If two effects combinable with a case-marker have the same degree of expectancy, only + and - prefixes can be used. Thus, u vs. m indicates, in Troubetzkoyan terms, a privative relation as to expectation, while + and - are equi-pollent. We can further state that if a case-marker is combined with a marked effect, the latter will have to be spelled out by means of a pronoun at all times. This can be described if we analyze the effect-markers into the following, more atomic features:

(86) \[
\begin{array}{c|cc}
& \text{direct effect} & \text{descending effect} \\
\hline
0 & + & - \\
B & - & + \\
L & - & - \\
\end{array}
\]

where '-' indicates either absence of the feature or noncommittalness in that respect (as B may be direct as well as indirect). The markedness-rule would then be:

(87) \[
[u \text{ descending effect}] \rightarrow [\sim \text{ descending effect}]
\]

which states that with \( \tilde{\alpha} \) both 0 and L are unmarked, whereas B is marked (and should be spelled out obligatorily when combined with \( \tilde{\alpha} \)). The difference between 0 and L will depend on the prefix [\( \tilde{\alpha} \) straight effect], where the markedness principle is not involved. Next:

(88) \[
[u \text{ descending effect}] \rightarrow [+ \text{ descending effect}]
\]

i.e. with imposition we expect B, and in the benedictive, L is a marked form which needs to be spelled out by means of a redundant pronoun. Note that 0 is impossible with [imposive].

In all other cases, \( + \) values are to be used, not u/m. The unmarked combinations are demonstrably the oldest in Amharic.
5. Theoretical implications.

It is quite obvious that the above sketch of the Amharic case-system differs fundamentally from the model suggested by Fillmore [1968]. Some differences are of detail. Against his Objective, I am suggesting that the object is selected by a process comparable to his 'primary topicalization' [1968:57 sq.], not on the basis of the logical relation between Noun and Verb (which might be homologous with the relations between other complements and the verb). The inventory of cases is also quite dissimilar. His Instrumental and Locative, as well as the Temporal, correspond here to only one category: 'medium'.

But the most important difference is that in my system there are two coexisting sets of categories involved, cases proper and the three effects.

For Fillmore, a verb is represented as having a number of case-marked arguments. E.g. (and ignoring optionality for the moment):

(89) Arrive objectal, ablative, locative, instrumental

Each noun is attached to one of these cases. In the present system, on the other hand, there is a dual system of adnominal and adpronominal case and effect markers, both attachable to the same complement. According to the above description, each of the complement-markers, the case and the effect, reflects another facet of the same relation. Thus, in dērrēsē 'arrive', kē- expresses 'boundary crossing for reaching a destination', and B the 'patient' character of the place reached. Consequently, that part of the verb which has the complement attached to it is a composite element itself. The free variation between kē- and wādē for place of arrival suggests that there are at least three components present in this complement: [boundary], [target], [descending effect], and either one of the first two can be spelled out with a non-pronominal complement. Thus, dērrēsē 'arrive' should be represented by something like the following cluster of feature-bundles:
The last one, the instrumental, is distinguished from the locative and the temporal through lacking a co-occurring feature [place] or [time]. dərrəsə may further have a temporal aspect, but this can be predicted from the bundles above.

The complements are each attached to one of the inner bundles, to be called subverbs, and according to whether they appear as pronouns or not, (eventually both), case and/or effect features will be segmentalized. However, whether given a surface-expression or not, the features remain part of the lexical verb. Each subverb, except the subject (and, with some reservations, the object), have to contain features of both classes, of one or more case-features and one effect-feature. In some cases, however, they will contain features of one class only (4.a.). Thus, a surface verb is considered to be composed of elements, subverbs, which are composite themselves.

There is an attested model in language which brings a situation similar to what is reconstructed here all the way to the surface. This is the phenomenon of 'serialization' found in West African languages [Stahlke 1970]. This means that, as a matter of principle, a verb can have only one argument, and conversely, each complement will have its own verb. Thus, the English sentence 'I brought a book home' is represented in Yoruba by a structure [Stahlke 1970:61] 'I took book came house'. In his article Stahlke wonders how serializing constructions
are to be interpreted. He rejects the idea that conjoining is a possible source for them [77-83], or that "at least some verbs in series (...) are in fact overt case markers" [83-7], or that serial verbs are complex lexical items [87-90]. I believe that serialization need not be integrated into syntactic configurations hitherto known to us from other languages, but rather the complement system of other languages should be interpreted through it. It is a fairly faithful and little-altered representation of the very deep structure of sentences. It underlies sentences with several complements also in those languages which allow several complements on one verb on the surface.

Amharic is somewhat closer to the serializing type than English. For one thing, it seems to prefer having only one complement per verb. During investigation, when I made up sentences where the verb has several possible complements on it, they were accepted with some reluctance. They were grammatical, but stylistically objectionable. For instance:

(91) səwiyəw k-əddiʃ abəba wədə gondəɾ hadə
    the-man from=Addis Ababa to(ward) Gondar went
    'The man went from Gondar to Addis Ababa'

can be paraphrased by:

(92) səwiyəw k-əddiʃ abəba wətto wədə gondəɾ hadə
with wətto 'he-went-out-and'. But Amharic is not a serializing language. It only has a 'stylistic' preference for one-verb-one-noun constructions, and it uses case-markers even in sentences like (92) above where the semantic nature of wətto would make the function of the attached noun clear.

In the underlying representation, on the other hand, each subverb (except the subjectal one) represents an element which can be rendered by a full verb in a serializing language.

6. Formal representation.

The following formal representation is incomplete and needs further elaboration. Nevertheless, it should illustrate the way the system suggested above operates.

There is a pre-lexical semantic deep structure where a sentence-to-be
is represented by a series of sub-verbs, some or all of them combined with nouns. The lexical verbs are selected by matching their sub-verbal composition with the content of the semantic deep structure. This might require some adjustment, such as picking two verbs to render all the semantic features, perhaps also dropping or adding a relatively insignificant feature, if the required combination of sub-verbs happens to have no exact counterpart in the lexicon.

In the following, I will illustrate the formalism of my brand of case-grammar using the verb dārāsā. I am doing so because this verb can entirely be defined in terms of 'case' and 'effect' features, whereas most verbs contain added semantic features of a different nature. The sub-verbal configuration which underlies the lexical verb dārāsā is as follows:

(93)

\[
\begin{align*}
\text{[participant]} & \quad \text{[boundary]} \\
\text{[twillful]} & \quad \text{[target]} \\
\text{[redefined]} & \quad \text{[desc.eff.]} \\
\text{[N]} & \quad \text{[N]} \\
\text{[boundary]} & \quad \text{[desc.eff.]} \\
\text{[(N)]} & \quad \text{[(N)]} \\
\text{[medium]} & \quad \text{[desc.eff.]} \\
\text{[N]} & \quad \text{[N]} \\
\text{[S]} & \quad \text{[S]}
\end{align*}
\]

Parentheses indicate optionality. It is quite clear that a subject is indispensable for this verb. Knowledge of the place of arrival is also essential, but it may be represented by zero on the surface if the context makes it clear (e.g. where arrival refers to the scene of the events related). Thus, the place of arrival is always known, and if deleted, it is still recoverable. As to the place of departure, on the other hand, N is in parentheses, indicating that one may effectively use the verb arrive without specifying or even knowing the place of departure. Only N is in parentheses because it is implied that there exists a place of departure (if not, bāqq alā 'to appear', 'pop up' would be used). As to the instrumental, the entire group is in parentheses because arrive allows the presence of an instrument (a vehicle\(^{29}\), but does not require

\(^{29}\)In other words, the instrumental is here an inorganic complement, cf. fns. 6 and 26. 'By foot' is not a real instrumental, but an explicit mark of lack of instrumental in verbs of motion.
If the semantic deep structure happens to have one of the config-
urations falling into the pattern of (93), the verb darrasas is selec-
ted as a representative of all the subverbs. There are reasons to
believe (I intend to expose them elsewhere) that case is not assigned
to nouns at this stage. Rather, each sub-verbal construction is given
an index number which shows the relation between sub-verb and noun even
in discontinuity:

\[(94)\]

The sub-verbal features are first copied to the coreferential nouns.
Thus, in addition to its lexical features, a lexically inserted noun
will have the shape:

\[(95)\]

After nouns have been assigned case features, as a first step, nouns
marked [participator] will be spelled out as subjects, i.e. nominatives
which impose agreement on verbs. Next, for those nouns which have more
than one case-features (like \(N_k\) in (94)), one of the features has to
be deleted. This is necessary at this stage so that a source of acqui-
sition, which is not marked by \(k5^-\), could undergo (96), the rule which
specifies that if there are two objects where one is owned by the other,
the owner is marked by an 0 suffix (4.b.):
In Amharic a pronoun directly following a noun can only be a possessive. The following redundancy rule will then stipulate that redefinition automatically entails straight effect:

\[(96)\]
\[
\begin{array}{c}
[\text{neg. pronoun}] \\
\text{redefined} \\
\text{agender} \\
\text{Snumber} \\
X
\end{array} \rightarrow \begin{array}{c}
[\text{neg. pronoun}] \\
\text{redefined} \\
\text{agender} \\
\text{Snumber} \\
Y \quad Z
\end{array} [\text{neg. pronoun}] \\
\text{agender} \\
\text{Snumber} \\
N_1
\]

\[(97)\]
\[
[\text{redefined}] \rightarrow [\text{straight effect}] / [\text{neg. pronoun}]
\]

The following rules generate obligatory resumptive pronouns under the conventions of markedness discussed in 4.b. They apply only when the element is [neg. pronoun]:

\[(98)\]
\[
\begin{array}{c}
[\text{neg. pronoun}] \\
\text{impositive ascending effect} \\
\text{agender} \\
\text{Snumber}
\end{array} \rightarrow \begin{array}{c}
[\text{neg. pronoun}] \\
\text{impositive ascending effect} \\
\text{agender} \\
\text{Snumber}
\end{array} [\text{neg. pronoun}] \\
\text{agender} \\
\text{Snumber} \\
N_2
\]

\[(99)\]
\[
\begin{array}{c}
[\text{neg. pronoun}] \\
\text{target descending effect} \\
\text{agender} \\
\text{Snumber}
\end{array} \rightarrow \begin{array}{c}
[\text{neg. pronoun}] \\
\text{target descending effect} \\
\text{agender} \\
\text{Snumber}
\end{array} [\text{neg. pronoun}] \\
\text{agender} \\
\text{Snumber} \\
N_3
\]

Next, the spelling rules given in Table 2 apply. Note that they contain very specific conditions. No effect feature can be spelled out if no [neg. pronoun] element is present. No case feature can be spelled out if no [neg. pronoun] is present. Both can be spelled out if both types of elements are present, in the case of resumptive pronouns (including those generated by (96), (98) and (99)). The manner by which the other resumptive pronouns are generated (cf. [Getatchew 1970]) will be the subject of a separate study.

There is a further pronoun-placement rule which puts all the
[+pronoun] elements right after the main verb:

(100)

\[
\begin{array}{c|c|c|c|c}
X & [+pronoun] & Z & \text{verb} & W \\
1 & 2 & 3 & 4 & 5 \\
1 & \emptyset & 3 & 4+2 & 5 \\
\end{array}
\]

where \( W \) is an auxiliary or zero.

The above rules appear in the order below:

(101)

1. lexical verb selection ( (93) and (94) above)
2. subject spelled out
3. rule of two objects ( (96) above)
4. redefinition to straight effect (97)
5. pronoun-placement (100)
6. markedness rules (98), (99)
7. case and effect spelling rules (Table 2)
8. pronoun-placement (100)

Note that the pronoun-placement rule (100) appears twice in (101), as (5) and as (8). This is necessary for the phenomenon already mentioned in Section 2. Amharic allows only one pronoun-suffix per verb on the surface. Should there be two such pronouns, one of them is deleted. It is not always clear which one of them is doomed to be dropped. One finds, however, that whenever there is conflict between an \( O \) suffix representing an object (i.e. generated by (97) ) and any other suffix (including \( O \) generated by the rule in Table 2), the former yields to the latter. This can be explained by assuming that the first pronouns to be placed are the object ones (101(5) ). When later any other pronoun is transported to the postverbal position (101(8) ), \( ( \) it can only stand after the verb and before an auxiliary or zero (according to (100) ), if it finds there an already placed object pronoun, the automatic deletion of the latter then takes place. (101(8) ) applies only once. If there are still other instances of [+pronoun] to be placed in the sentence, they will be converted into independent pronouns, if possible (cf. fn. 4). If not, they will be simply deleted.
REFERENCES


