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Comprehension studies in simple
and complex Amharic sentences

Thesis submitted to the University of London
for the degree of Doctor of Philosophy
by
Francis Peter Cotterell



Abstract

Amharic is a Semitic language which is characterized in its syntax by subordination and in its morphology by synthesis. Four different investigations are described which attempt to identify areas of difficulty of comprehension experienced by Ethiopians in the use of Amharic. Comprehension may be defined in terms of the ability to comprehend and to retain the information conveyed by a sentence, as ability to perceive and project grammatical structure in the context of an incomplete sentence, and as the ability to generate a sentence of specified structure by a process of translation.

The testing procedures examine these concepts of comprehension. Particular attention is given to the influence on comprehension of sentence length, sentence type, information load and sentence structure, and to the conditions under which the pendent nominative appears.

It is concluded that although such features as sentence length, information load and sentence type may adversely affect sentence comprehension the decisive influence is that of sentence structure. The feature of suspense is identified as a specific factor inhibiting comprehension. The study also suggests that there is, at present, a decided preference for the simple verbal form rather than the compound form, a preference which is not to be attributed to lack of ability in Amharic.

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Abbreviations

<u>ACISE</u>	Atti del convegno internazionale di studi etiopici, published in Accademia Nazionale dei Lincei 357(1960)
<u>AJP</u>	American Journal of Psychology
<u>BES</u>	Bulletin of the Ethnological Society (Addis Ababa)
<u>JEP</u>	Journal of Experimental Psychology
<u>JES</u>	Journal of Ethiopian Studies
<u>JSS</u>	Journal of Semitic Studies
<u>JVLVB</u>	Journal of Verbal Learning and Verbal Behaviour
<u>PAPS</u>	Proceedings of the American Philosophical Society
<u>RRAL</u>	Rendiconti della Reale Accademia dei Lincei. Classe di scienze morali, storiche e filologiche
<u>RSE</u>	Rassegna di studi etiopici

E.C. Ethiopian Calendar

* Where a star appears against an Amharic word it is an indication that, although it is recognised that the word is incorrectly constructed, this is the form offered by an informant

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GDLA
Il verbo amarico, Rome, 1911
Lebb wälläd tarik, Rome, 1908 LWT
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CHAPTER ONE: INTRODUCTION

The Amharic language: classification; Transcription;
Punctuation: hulät näṭeb, näṭäla säräz, derreb säräz, arat
näṭeb; Dialectal variants; Characteristics of Amharic: synthesis
as characteristic of Amharic morphology, subordination as
characteristic of Amharic syntax; Previous grammatical studies:
Ethiopian scholars, non-Ethiopian scholars.

CHAPTER ONE: INTRODUCTION

The Amharic language: classification

The family of languages termed Semitic is sub-divided in geographical terms in such a way that the divisions

"correspond tolerably well to the distribution of gross linguistic features"¹.

The Semitic languages of Ethiopia belong to the South-West Semitic group and are themselves also divided, again on a geographical basis, into Northern and Southern groups. Amharic is assigned to the latter group.

The term "Semitic" is understood as being

"conventionally applied to a group of languages spoken in western Asia, or generally originating from that area, and characterised by a large number of common elements in their phonology, morphology, vocabulary and syntax"².

In the Amharic language we have, however, an example of a Semitic language in which the syntax does not, in fact, reflect the

¹ CGSI, p.4

² CGSI, p.3

principal syntactic features of the Semitic group:

"all the cherished principles of Semitic syntactical structure have been upset in Amharic"¹.

However, Amharic is a Semitic language. In discussing the problem of defining a Semitic language Ullendorff has written:

"While it may be easy to recognize, through experience and impression, a Semitic language of the type represented by, say, Arabic or Ethiopic or Ugaritic, where the Semitic character is most fully and clearly developed, the position would be very different with regard to modern Hebrew or Amharic or Soqotri"².

Ullendorff goes on to consider the various features usually taken to identify the Semitic languages: the predominance (although not the preponderance) of the consonant over the vowel, the concept of tri-literality (although an original bi-radical system to which a later, modifying, third radical was added is recognized),

¹ CA, p.14 and AC, p.8; in both places Ullendorff refers back to Praetorius' Die amharische Sprache, p.3 and there is little need to elaborate on this characteristic feature of Amharic. Subordination rather than parataxis, qualifier preceding and not following the qualified, verb in sentence final and not sentence initial position and the lengthy periods typical of the language adequately support the statement.

² "What is a Semitic language?", Orientalia, 27 (1958), p.67

the system of laryngals (which however occur in other, non-Semitic, languages also) and parataxis. In the case of Amharic he concludes:

"...I should myself feel inclined to attach sufficient weight to the essentially unimpaired verbal system to uphold the Semitic identification"¹.

Transcription

The Amharic syllabary has its origins in the Syro-Palestinian area, descending through, or with, Epigraphic South Arabian to the Gə'əz and, with further modification, to the present inventory of characters². The feature of Semitic in which the consonant bears a significance not, in general, accorded to the vowel, is reflected in the essentially consonantal structure of the script employed for writing it. The script employed for writing Ethiopic exhibits an adaptation of the basic forms which originated in the 3rd or 4th century³ and indicates association with a system of seven vowels. Even so the vocalisation of the script does not impinge on the essential primacy of the consonants.

¹ "What is a Semitic language?", p. 73

² CGSL, pp.18-21

³ E. Ullendorff, "Studies in the Ethiopic Syllabary", Africa, 21 (1951), p.207. D.Diringer, however, says "vocalized Ethiopic script may have been used already in the first and second centuries A.D." (The alphabet, 3rd edition, p.180).

It is not surprising that a syllabary which has so long a pedigree should fail to meet precisely the needs of the language with which it is now principally employed. The laryngals are, in Amharic, reduced to only h, and the infrequent, and usually inter-vocalic/glottal stop, but the symbols for the laryngals, ሀ, ሐ, ኀ and ኸ are all retained¹. In addition the first order symbols for the laryngals, ሀ, ሐ, ኀ, ኸ and ዐ are, in fact, associated with the fourth order vowel, only ኸ being available to render hā. There are thus seven ways of writing ha: ሀ, ሐ, ኀ, ሐ, ኀ, ኸ and ኸ while ኸ, ኸ, ዐ and ዐ all represent a.

With the exception of a comparatively few words, whose etymologically correct spellings are retained with some regularity, the symbols for the laryngals tend to be used interchangeably. They are therefore transcribed alike: ሀ, ሐ, ኀ and ኸ as h and ኸ and ዐ as consonantly zero. In addition ኸ and ሐ are transcribed alike as s. The emphatic series of consonants are, in Amharic, ejectives, and they are distinguished in transcription by a dot beneath them. The two characters ጸ and ፀ are pronounced alike and are rendered s. The development of palatalization in Amharic led to the modifying of the syllabary for the accommodation of new forms. Originally palatalization was indicated by:

"two points which were attached to each side of the head of the letter. Later this was generally written as a small line

¹ Thus the word for a picture, ከሰልጣጥ, may be pronounced se^ol or se^o?el. The subject of Amharic phonology is dealt with exhaustively in E. Ullendorff, The Semitic languages of Ethiopia.

on top of the letter...The invention of these signs must have taken place some time between the 9th and 15th centuries"¹.

The palatalized series of consonants is distinguished in the transcription used here by a wedge: ḥ̄ is rendered ḥ̄ and ḥ̄̄ is rendered as ḥ̄̄.

The ambivalence of the sixth order character, which may represent either the consonant alone or the consonant plus the central vowel, here transcribed as ə, is a serious defect in the script. A further defect is the absence of any sign to indicate gemination (corresponding with the Arabic tāššid). Thus ḥ̄ḥ̄ḥ̄: and ḥ̄ḥ̄ḥ̄: both consist of three sixth order characters but are transcribed tellek and telk.

The function of gemination in the Amharic verbal system is well understood but outside the verbal system the matter of gemination remains unclear and a sign for it would be most helpful. In a few manuscripts the symbol ḥ̄̄ appears over a consonant which is to be geminated, to be referred to the imperative of the verb ḥ̄ḥ̄ḥ̄: , "to guard"².

Variants in Amharic spelling may be attributed to a number of factors: the coalescence of the laryngals is a major factor and

¹ E. Ullendorff, "Studies in the Ethiopic syllabary", p.214

² ibid., p.215

the generally low level of literacy another. Prosthesis affects some words: the word for a pigeon may be spelled [ግብ: or እርግብ: ¹ and metathesis is fairly common. In speech እዛጊያብሔር: is frequently heard in place of እግዚአብሔር, "God", and ቤተክርስቲያን: , "church", may become ቤተሰጊያን: ².

Transcription: consonants

			Palatalized		
Voiced	Voiceless	Emphatic	Voiced	Voiceless	Emphatic
ጸ ል	ተ ጥ	ጠ ጥ	ጸ ል	ቸ ጥ	ጠጥ ጥ
ዘ ጊ	ሰሠ ል	ደ ፀ ል	ዘ ጊ	ቸ ጊ	
ገ ል	ከ ግ	ቀ ግ			
ቦ ግ	ፕ ግ	ደ ፕ			
ነ ግ			ኘ ግ		
=====					
	ረ ግ	ረ ፍ	ሙ ግ	ለ ግ	
=====					
Laryngals:	ሀ ሐ ጎ ጎ	ከ	አ ሀ	zero	
=====					
Semi-vowels:	ወ ግ		የ ግ		
=====					

Transcription: vowels

1st order ä 2nd order u 3rd order i 4th order a
 5th order e 6th order ə 7th order o

=====

¹ cf. also the Ethiopian's rendering of English "scout"; Addis Zämbän, Tahsas 8 1959 E.C. spells እስካውቶቶ: , "scouts".

² And YG, p. 44 , እዛጊያ: . In ቤተሰጊያን: metathesis follows contraction (YG, p.22).

Notes on the transcription

1. As has been indicated the transcription of the first order characters for the laryngals does not follow the general pattern, the consonant being generally associated with the fourth order vowel.
2. Except for well-established spellings the transcription set out above has, in general, been adhered to. Thus Haile Sellassie and not Haylä Sellase, but Wäldä and not the usual Wolde.
3. Capital letters are, however, used in rendering proper names and the transcription of personal names, where given in the sources, is retained even where it may not conform to the system of transcription adopted here.
4. A geminated consonant is written double in the transcription.

Punctuation

Märsəe Hazän lists fourteen punctuation signs in his grammar¹, but of these only five are used with any degree of regularity: the hulät näteb, "two points", the näṭāla säräz, "single stroke", the dərreḅ säräz, "double stroke", the mulu näteb or arat näteb, "four points" and the mark of interrogation, (?), which displaces the arat näteb at the close of the interrogatory sentence.

¹ YSMH, p.207

His comments on the four principal punctuation signs are repeated here as a convenient summary of their functions, although it must be recorded that practice does not always co-incide with theory.

Symbol	Name	Function
:	ነጥብ፡ drop, point	የቃል፡መለያ፡ነው። This is the word separator
፣ ፤	ነጠላ፡ሠረዝ፡ single stroke	በዐረፍተ፡ነገር፡ውስጥ፡እነበተኛ፡የቃል፡ መክፈያ፤ ማሳረፊያ፡ነው። The sign for a minor division or pause within the sentence
፥	ድርብ፡ሠረዝ፡ double stroke	በዐረፍተ፡ነገር፡ውስጥ፡ከፍተኛ፡የቃል፡ መክፈያ፤ ወይም፡ማሳረፊያ፡ነው። The sign for a major division or pause within the sentence
።	ሙሉ፡ነጥብ፡ full point	በሙሉ፡ቃል፡የሚነገር፡የዐረፍተ፡ነገር፡ማግኛ፡ ነው። አገዳጅ፡ጊዜ፡፬፡ነጥብ፡ይባላል። The sign for the close of a sentence, that is to say of a complete utter- ance. It is sometimes called "four points"

Täklä-Maryam Fantaye, while perhaps using his punctuation marks with greater precision than does Märsäe Hazän does not explain the functioning of the various signs as systematically. He writes:

ቃላትን፣ ቃላትን፣ ወይም፣ ግንኙነት፣ ሐረጎችን፣ በነጠላ፣ ሠረዘት
 ድርብ፣ ደብዳቤ፣ ድርብ፣ አረፍተ፣ ነገሮችን፣ በድርብ፣ ሠረዘት፣
 እንደዚሁም፣ ባንድ፣ አረፍተ፣ ነገር፣ መጨረሻ፣ ላይ፣ ሙሉ፣ ነጥብን፣
 ወይም፣ ትእምርተ፣ ግድቆን፣ ወይም፣ ትእምርተ፣ አንጻሮን፣ ወይም፣
 ትእምርተ፣ ሠላቆን፣ እናከገባለን።

"We employ the nätäla säräz in separating words or consecutive phrases or minor clauses, the derreb säräz in compound or complex sentences and the arat näteb, the question mark, the exclamation mark to indicate the end of a sentence"¹.

Punctuation signs have been introduced only comparatively recently into Amharic writing, that is, of course, apart from hulät näteb and arat näteb. In manuscripts where other symbols did appear they were often used incorrectly; Dillmann states:

"Smaller marks of division (than ::) are not employed as a rule; ፤ , however, serves this purpose; frequently placed between the several words...In later manuscripts ፤ , " , ፡፡ are oftener employed, but mostly in the wrong place through the ignorance of the copyists"².

¹ HTSS, p.138

² Ethiopic grammar, p.33

And yet comprehension of written Amharic can be materially assisted by the proper use of the punctuation signs, and, conversely, can be hindered by their neglect. For example, in the novel *ሠርዳ፡ መኖር፡*, "To work and to live"¹, the punctuation is minimal:

ዲራክተር፡ ምንድነው፡ ጌታዬ፡ አምቃታል፡ እንዴ፡ ብሎ፡ ጠየቀ፡፡
 ገንቲባ፡ ታላቅ፡ ሕመም፡ እንዴ፡ እንገ፡ አንብበው፡ የደረሰኝን፡
 ደብዳቤ፡ ብለው፡ ለጸሐፊው፡ ክፍል፡ ሹም፡ ሰጡት፡፡

Here derreb säräz is used to mark off the speaker's identity in the second sentence but not in the first, and the paucity of punctuation leads to a measure of opacity. Re-punctuation of the passage, however, is seen to assist comprehension:

ዲራክተር፡ « ምንድነው፡ ጌታዬ? አምቃታል፡ እንዴ? » ብሎ፡ ጠየቀ፡፡
 ገንቲባ፡ « ታላቅ፡ ሕመም፡ እንዴ፡ እንገ ፣ አንብበው፡ የደረሰኝን፡
 ደብዳቤ፡ » ብለው፡ ለጸሐፊው፡ ክፍል፡ ሹም፡ ሰጡት፡፡

Director: "What is it sir? Are you ill?" he asked.

Mayor: "Much worse; a grave sickness! Take this letter which I have received and read it" he said, giving it to the Director of the Security Department.

Since we are concerned with the comprehension of Amharic sentences and this comprehension is affected by punctuation some reference

¹ By Käbbädä Habtä-Maryam, 2nd edition, 1953 E.C., published in Addis Ababa. The book does not use the hulät näṭeb as word separator, nor does it employ either quotation marks or the nätäla säräz. The example quoted here comes from page 48.

to the system of punctuation is necessary. But this is also necessitated by the need to identify the boundaries of sentences for the experimental part of the study, and it will become evident that for this purpose the punctuation of the text under consideration may be an inadequate guide. The employment of the four principal punctuation signs is examined in texts taken from newspapers, from books and from the Bible. This last is placed in a separate category since the punctuation of the "Emperor" version¹ has been much influenced by the non-Ethiopian members of the translating committee.

1. Hulät näṭeb Words were originally separated from one another by a small vertical line², but the line has given way to two dots, the one above the other. There are three considerations to be made of the use of hulät näṭeb: in relation to the prepositions, in indicating the breaking of a word at the end of a line, and its employment in the textual apparatus in the Bible.

67 The preposition is treated sometimes as a word and sometimes as an affix, although the mono-syllabic prepositions ስ-, ለ- and ገ- are regularly written as affixes. Pei and Gaynor, in defining the word "preposition", state:

"unlike prefixes, prepositions do not fuse with the word which they modify"³.

¹ The complete translation was published in 1962. The new version is discussed briefly by E. Ullendorff in Ethiopia and the Bible, pp. 66-67.

² TE, p.135

³ DL, p.174

This, however, is a question of transcription and no consistent principle is followed in Amharic:

ወደ : ተክክለኛው : ደንበኛ : ኑሮ : እንዲመለሱ : 1

"that he might return to a proper and normal way of life", but the same author writes, on the same page:

ወደቤቱ : ለመገባት : ፊትን : መለሰ :

"he turned his face homewards"

and again, in the newspaper Addis Zāman

ወደ : ትምህርት : ቤት : 2 , "to school", but
ወደገጠኞችን : ለማስገባት : , "to bring to our country".

The Bible is more consistent in its usage, always writing ወደ : as a word, when preceding a nominal (ወደ : እኔ : , "to me" and never ወደኔ :) but treating it as an affix before the relative construction:

በዚያ : ቀን : ገጣብዮ : ምድር : ወደዚያ ሁለቱም ገጠኞች : ማር :
ወደምትፈስሰው ፡ የምድርም : ሁሉ : ጌጌ : ወደምትሆን : ምድር :
እወጣቸው : ዘንድ : ማልሁለቸው ፡... .

"I promised them that day that I would bring them out of the land of Egypt into the land which I had prepared for them, to a land flowing with milk and honey, to the land which is the glory of all lands"³.

¹ MB, p.298

² The issue for Tahsas 3 1956 E.C.

³ Ezekiel 20.6

The inconsistent treatment of the preposition, however, has only a very minor effect on comprehension although I have encountered confusion between ወደ፣ , "towards", written as a word, and ወደ፣ , "he having loved", 3rd person masculine singular gerund of the verb ወደደ፣ , "to love".

The particular value of the hulät näteb is as an aid to comprehension when a word is divided at the end of a line. Then the non-appearance of hulät näteb is the infallible sign of the broken word. And since word division may occur at any point in the word it frequently happens that the first part of a divided word is itself a complete word. Less frequently we find both parts of the divided word constituting complete words or at least structures which plausibly resemble words. In the first category we find the following examples, all taken from the novel ሠርቆ፡ መኖር፡ , "To work and to live", pp. 59-100:

በተማ - ውጎ፡ , "the town(accum)"; ያደግሁ - በትም፡ , "the place in which I was raised"; አለ - ውና፡ , "for he said to him"; ያሉ - ትን፡ , "that which they said"; ስሜ - ታቸውጎ፡ , "their agreement", ስም - ጓት፡ , "eight". More confusing still are examples falling within the second category: ወይ - ዘሮ፡ , "Madam"; በገግ - ትራት፡ , "by contract"; ገዥ - ያችንና፡ , "our Governor and"; ቀረ - ቡና፡ , "he came near and"; በረ - ስትኑት፡ , "as inheritor"; ወንድ - ሞቻችን፡ , "our brothers".

Selecting at random three pages from this book and considering only complete lines of text (that is, omitting lines which close a paragraph) we find that out of 252 lines there are 101 which

Again, while the subject of the sentence may be marked off by dərreb sārāz it is not uncommon to find nätāla sārāz functioning in the same way:

ደዳች : ብጡል፡ የሚጫይቱን፡ ወይዘሮ፡ የውብ፡ ዳረን፡ አጣብተው፤
አቴ፡ ጣይቱን፡ . . . ወለኩ። 1

"Dādat Beṭul married Wāyzāro Yāweb Dar, of Meṭa and begat Itege Ṭaytu";

ነገሶች፡ ቃላትን፡ በየወገን፡ በየወገናቸው፡ እያደረገን፡ የምንለይባቸው፡
መክፈያዎች፡ ናቸው። 2

"Punctuation signs are the means by which we divide words into their respective groups".

The most common and most regularly observed use of nätāla sārāz is in separating the items of a list:

የአማራ፡ ሕዝብ፡ የነገዳ፡ ቤም፡ ወገኖች፡ የሶቅጣን፡ ልጆች፡
የአብራኤል፡ ዘሮች፡ እንደሆኑ፡ ፈጽሞ፡ የሚያስረዱት፡
ጠባያቸው፡ ልማዳቸው፡ መልካቸው፡ ስማቸው፡
ሰመ፡ ሀገራቸው፡ ቋንቋቸው፡ ነው። 3

"Complete confirmation of the fact that the Amhara are a Semitic race, children of Joktan, and Israelites, is provided by their character, customs, appearance, name, the name of their country and their language".

¹ YIHT, p.49

² HTSS, p.138

³ YIHT, p.23

In the Bible the use of nätäla säräz is very regular, preceding such indicators of a continuing period as ነገር፣ "however" and the suffixed co-ordinating conjunction -ም:

ቅጠልም፡ ያለቅ፡ በለሰ፡ በሩቅ፡ ስዕቶ፡ ምናልባት፡ ለዓዳቸው፡ ይገኝባት፡ እንደ፡
ሆነ፡ ብሎ፡ መጣ ፥ ነገር፡ ግን፡ የበለሰ፡ ወራት፡ ስልጠናውና፡ መጥቶ፡
በቅጠል፡ በቀር፡ ምንም፡ ለገገኝባትም ። 1

"And seeing in the distance a fig tree, with leaves on it, He came, thinking that He might find something on it. But it was not the month for figs and He found nothing on it except leaves",

ኢየሱስም፡- እኔም፡ ለዓዳቸው፡ ነገር፡ አጠቃቅሷልሁ ፥ እናንተም፡ መልሱልኝ ፥
እኔም፡ በምን፡ ለሰጠኝ፡ እነዚህን፡ እንዳይደረግ፡ እነግራቸዋልሁ ። 2

"Jesus (said), 'I will ask you one thing; you answer me and then I will tell you by what authority I do these things'".

A further Biblical function of nätäla säräz is as separator between chapter numeral and verse numeral in references: ኢሳ. 58 ፥ 7 ፡ is read as Isaiah chapter 58, verse 7.

3. Dərreb säräz Just as nätäla säräz, second in the hierarchy of punctuation signs, sometimes adopts the functions of the third member, dərreb säräz, this, in its turn, sometimes adopts the functions of the highest member of the hierarchy. Thus in the novel እንደ፡ ወጣች፡ ቀረች፡ (The title is cryptic. It might be rendered, "As she went so she remained") the author introduces

¹ Mark 11.13

² Mark 11.29

four consecutive parallel constructions, each commencing በኛንተ፤ ደም፡¹, "with your blood". The first two of these are linked by derrēb sārāz and the sequence closes with arat näṭēb. But the two remaining structures are treated as independent sentences, each closing with arat näṭēb.

This usurping of the role of arat näṭēb by derrēb sārāz is found also in the novel ሠርቶ፡መኖር፡, "To work and to live", in which five paragraphs close with derrēb sārāz. And on pages 37-39 we have a sequence of 184 words punctuated by derrēb sārāz² and with arat näṭēb only at the close of the sequence. As an example of punctuation at its worst and comprehension seriously affected part of the passage is repeated here:

በዚህ፡ ጊዜ፡ መንደረኛው፡ ሰው፡ ልቡ፡ ይጭ፡ ይጭ፡ እያለ፡ ሲያስቸግረው፡ ጊዜ፡
 ወደ፡ ጸቶ፡ ተሰፋ፡ ተመልሶ፡ ሄደ፡ አደግኗል፡ መሬት፡ ሰመ፤ ምናው፡ ወንድሜ፡
 ምን፡ ሆኖኝ? ምን፡ አገኘህ? እሁን፡ ደህና፡ ተሰነገብተን፡ ሄደህ፡ አልነበረም?
 ብለው፡ ጸቶ፡ ተሰፋ፡ ጠጋ፡ ብለው፡ ሲጠይቁት፡ ወደጊላው፡ እያፈገፈገ፡ እርሱ፡
 መሆንዎን፡ ሳላውቅ፡ ስለሆነ፡ ቅጽም፡ በድፍረት፡ ያሳገርኩዎት፡ ይቅር፡ ይበሉኝ፡
 በገዛ፡ ግዛቶ፡ የሌለጉትን፡ ቢያደርጉ፡ እኛ፡ ጤያቂዎች፡ ለንዎን፡ በስተገባም፡ ነበር።

"Then the villager, his heart quaking and troubling him returned to Ato Täsfa and, falling down, kissed the ground. What is it, my brother? What's the matter? What's happened? Did you not just leave me contentedly? asked Ato Täsfa, drawing near. But, retiring nervously, (he said)

¹ The book is written by Asäffa Gäbrä-Maryam. The sequences occur on page 95.

² And the mark of interrogation, used somewhat erratically.

It was because I did not know that it was you that I spoke to you so boldly before. Pardon me. If you wish to do anything in your own Governorate it is not for us to query it..."

Comprehension is materially assisted by re-punctuating the passage:

በዚህ ፡ ጊዜ ፡ መንደረኛው ፡ ሰው ፡ ልቡ ፡ ይጭ ፡ ይጭ ፡ እያለ ፡ ሲያስቸግረው ፡ ጊዜ ፡
 ወደ ፡ አቶ ፡ ተስፋ ፡ ተመልሶ ፡ ሄደ ፡ አደግኳል ፡ መሪት ፡ ሰው ፡ ። « ምን ፡ ነው ፡ ወንጀላዊ?
 ምን ፡ ሆኖኝ? ምን ፡ አገኘህ? አሁን ፡ ደህና ፡ ተሰነገብተን ፡ ሄደህ ፡ አልነበረህም?
 ብለው ፡ አቶ ፡ ተስፋ ፡ ጠጋ ፡ ብለው ፡ ሲጠይቁት ፤ ወደኋላው ፡ እያረገገው ፡- « እርስዎ ፡
 መሆንዎን ፡ ሳላውቅ ፡ ስለሆነ ተቅድም ፡ በድፍረት ፡ ያሳገርኩዎት ፤ ይቅር ፡ ይበሉኝ ።
 በገዛ ፡ ጣዛትዎ ፡ የረቀቁትን ፡ ሲያደርጉ ፤ እኛ ፡ ጢያቂዎች ፡ ልዓሆን ፡ ባልተገባዎ ፡
 ነበር ። »

Indeed it is frequently the case that an apparently complicated passage of Amharic loses much of its opacity when it is properly re-punctuated. Derreb säräz, limited to its proper function, could certainly assist in the clarification process. Cohen describes its function as follows:

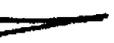
"Une division en membres de phrases peut être marquée par le signe ፤ , en amharique ሰረዝ፡ , säräz. Ce signe vaut généralement un point et virgule, quelquefois une virgule"¹.

It would be helpful if nätäla säräz could be retained as the general equivalent of the comma and the derreb säräz for semi-colon and colon.

¹ TLA, p.25

4. Arat näṭeb, or ኃቀጥ፣, as it is sometimes called, is used to indicate the close of a period. In older works it is also employed¹ to separate the items which are in apposition or juxtaposed. Cohen writes:

"Le même signe sert souvent à séparer des notions opposées ou juxtaposées dans une énumération (cas où l'usage européen comporte des virgules ou des tirets)"².

The arat näṭeb is simply a doubling of the word divider³ and indicates a rest or pause. The sign may occasionally be augmented to indicate the close of a larger division, such as a paragraph or chapter. This may be by simply repeating the sign: ::=:: or, in handwritten works, by the use of coloured ink to elaborate the sign: ❖❖, or, where a new line or paragraph is to be commenced and the current line is not filled, by an extended double line: ::⁴.

Two points follow from this brief discussion of Amharic punctuation: firstly that punctuation is employed inconsistently and secondly that this inconsistency constitutes an unnecessary barrier to comprehension. Ullendorff writes:

"While the absence of punctuation might be considered disturbing in Ge'ez, it becomes a most serious matter in the modern languages, where all Semitic syntactical

¹ For example in Heruy Wäldä-Sellassie, Yä-heywät tarik, "Biographies", published in 1923 (1930-31).

² TLA, p.25

³ EG, p.33

⁴ See the texts in S. Strelcyn, Médecines et plantes d'Éthiopie for examples of this device.

rules are in complete dissolution and the most involved and lengthy periods are the normal forms of sentence construction"¹.

Dialectal variants

It is generally recognized that there are dialectal differences between the Amharic spoken in the Shoa district and that current in the north, in the Gojjam area. The position is summarised by Ullendorff:

"There is general agreement that, considering the wide area covered by Amharic, there are remarkably few dialectal variants of any real significance. Nowhere do these variants impair mutual intelligibility, and such distinctions as do exist occur principally between the speech forms current in the Shoa and Gojjam provinces"².

The subject of the dialectal variants has not attracted much attention from scholars³. Published works of the present century would appear to be almost entirely in the Shoan dialect. The materials examined in the experimental part of the present study are all from the Shoan dialect.

¹ "Studies in the Ethiopic syllabary", p.216

² AC, p.11

³ Abraham Demoz, however, has written briefly on morphological and vocabulary aspects of the problem: "The peculiarities of the Gondarene Amharic", BES, 4(1955), pp.11-14.

Characteristics of Amharic

In its morphology Amharic is characterised by synthesis and in its syntax by subordination. These two aspects of the language may conveniently be examined at this point.

1. Synthesis as characteristic of Amharic morphology. This

aspect of Amharic is discussed in some detail with regard to the verb, the noun and verbal noun in chapter three below. It is in the verbal system, perhaps, that the synthetic character of Amharic is most clearly evident. Not only may the stem of the verb be modified to give some extension of meaning:

ሰባበረ: , "to smash", from ሰበረ: , "to break", but an extensive range of affixes is employed to indicate person, number, gender, aspect; and pronominal suffixes may be used to indicate direct or indirect object. Subordinating conjunctions and indicators of mood further complicate the total structure of the verb.

A few typical examples, all taken from the novel ሠርዖ:መኖር: , best illustrate this feature of Amharic complexity:

- ሰለጠኝ: , "because he did not give to me"
 እንዲያገኙለት: , "so that they might obtain for him"
 እንደሚደርሱብኝ: , "that it will reach me (to my disadvantage)"
 እንድትወቅሱኝ: , "that you provoke me and"
 እንደሚጫወቱበት: , "that they play with it"
 የምትደርጉልኝ: , "that which you(pl) do for me (accus)"
 በሚገኙባቸውም: , "and by that which is found against them".

2. Subordination as characteristic of Amharic syntax. While it

is true that subordination occurs in Gə'əz¹ it is characteristic of Amharic. An example best illustrates the point:

አሁን፡ የምለምናችሁ፡ ተስፋ፡ የጣሉብኝ፡ በኔ፡ የነበራቸውን፡ ተስፋ፡ እንዳይቆርጡብኝ፤

የወደዱኝ፡ እንዳይጠሉኝ፤

ለቅን፡ አገልጋይነት፡ እጣዚእብሎ፡ እንዳይያዘኝ፤

በደረሰኝሁ፡ እንዳይቀርቡኝ፤

እናንተ፡ በምክርም፡ በሥራም፡ የምታደርጉልኝን፡ እርዳታም፡

እንዳትነፍጉኝ፡ ነው። 2

"What I now beg of you, so that those who set their hope
on me, that they should not give up the hope they had,
that those who loved me should not cast me off
that God may fit me for honest service
that you may help me by your prayers
that the assistance which you give me in labour or in advice
that you should not be niggardly with it, it is"

It is noticeable, even in this passage, that it is the relative construction, together with the complexity of subordination, which leads to the typically extended periods:

"Long and complex periods without adequate marks of punctuation naturally form the major stumbling block. The relative complex, in its various guises, represents the central feature in this process of subtle and intricately poised enclosures and encasements"³.

¹ cf. paragraphs 180-183 of Dillmann's Ethiopic Grammar.

² MLKM, p.35

³ E. Ullendorff, CA, p.15

The problem of brachylogies in Amharic has been best illustrated by Ullendorff in his now celebrated sentence from the Däbtära Zaneb version of the Chronicles of King Theodore. The sentence consists of nine words in Amharic. Ullendorff paraphrases in sixteen words in English and Moreno employs 25 words in his Italian rendering¹. Two factors combine to produce complexities of this kind: the use of verbal nouns and of verbs without any explicit subject and secondly the use of direct speech constructions in almost all situations involving thought or decision.

The lengthy sentences which result from subordination and the relative construction lead not infrequently to anacoluthon, and in particular to that form of it involving the pendent nominative. Clarification of structure is sometimes effected, in suitable circumstances, by the epexegetical introduction of the object suffix:

የክርስቲያን፡ ንጉሥ ፡ አንበሳ ፡ ውድዎ ፡ በነገሠ ፡ ጊዜ ፡
 እነዚህን ፡ ልላቸው ፡ ልጃቸውና ፡
 የክርስቲያንን ፡ ደም ፡ ብጅር ፡ መለሰ ፡፡ 2

"When the Christian king, Anbäsa Wëdd reigned
 these Fälahas, he scourged them and
 repaid the debt of the blood of the Christians".

¹ CA, pp.7-11

² YIHT, p.35

The typically Amharic litotes structure ሳይሆን፡አይቀርም፡, literally "without being so it will not be lacking", with the meaning "it is fairly certain", is a further example of the use of subordination. Actually litotes is rather common in Amharic and is by no means restricted to the one formula:

ሰብአዊ፡ባልሆነ፡ሥቃይ፡ተጨንቆ፡የሚሰጠው፡ቃል፡መሆን፡የለበትም፡። 1

"A word which produces unnatural suffering
it ought not to be",

እኔ፡ የምመርጠው፡ አንዴን፡ ብቻ፡ አይደለም፡። 2

"What I will choose, one only
it is not",

ከዘጠና፡ ብር፡ በታች፡ መሆን፡ የለበትም፡። 3

"That it should be less than ninety dollars
it ought not to be".

Previous grammatical studies: Ethiopian scholars

We do not have any large body of grammatical studies of Amharic by Ethiopian scholars. The first grammar of the language by an Ethiopian was by Afāwārḳ Gäbrä-Yāsus, published at Rome in 1905⁴. Perhaps the most valuable part of this work is the body of texts, extending over 73 pages and including examples of correspondence and poetry. Gemination is indicated irregularly (የሰጠው = yälläm)

¹ MLKM, p.85

² MLKM, p.88

³ MLKM, p.92

⁴ Grammatica della lingua amarica, by "G.J. Afevork".

and hard and soft-*ḥ*- are distinguished: *በረሀ* = *bäräha*, "desert", but *ገህሬ* = *gäväre*, "farmer". In 1911 this work was followed by his *Il verbo amarico* in which the verbs are conjugated under twenty divisions.

In 1923 Käntiba Gäbru published in Amharic his *ያማርኛ፡ሰዋስው፡መሪ* , "Guide to Amharic grammar", which contains an interesting section on *ቅኔ* , "poetry". The work, however, is a brief one and the grammar by Ya'qob Gäbrä-Iyäsus, *ያማርኛ፡ቋንቋ፡አጭር፡ሰዋስው* , "Brief grammar of the Amharic language", published in 1928, is even more brief, extending only to 45 pages.

None of these books, however, has exercised any great influence on the teaching of Amharic in Ethiopia. This has been the privilege of two more recent publications, Märse'e Hazän Wäldä-Kirkos' *ያማርኛ፡ሰዋስው* , "Amharic grammar", and Täklä-Maryam Fantaye's *ኖኅተ፡ጥበብ፡ዘሥነ፡ጽሑፍ* , "Fundamentals of literature". The former was first published in 1943 and the latter in 1954. Both of these books have passed through several editions.

Blatta Märse'e Hazän wrote his grammar in 1927¹ as an aid to his work as a teacher of Ge'ez and Amharic in the Täfäri Mäkonän school in Addis Ababa. It is thus a pedagogical grammar, with

¹ According to the Introduction to the book, p.3.

abundant exercises and examples, extending over more than 200 pages. Particular attention is paid to problems of syntax and sentence analysis, the section on syntax (Amharic አገገብ: , "manner of entering") occupying 65 pages.

Sentence analysis is presented in tabular form best illustrated by an example¹:

የኢትዮጵያ፡ ንጉሠ፡ ነገሥት፡ አዴ፡ ምኒልክ፡
 ኢጣልያኖችን፡ በአድዋ፡ ላይ፡ ድል፡ ገነዘ፡ በኋላ፡
 በሕዝብ፡ አፍ፡ ታላቁ፡ ምኒልክ፡ ተባሉ።

"The Emperor of Ethiopia, Ase Menelik, after he had defeated the Italians at Adua was called Menelik the Great by the people".

(ሀ) ባለቤት: Subject	(ለ) ዘርፍ: ወይም: ተቀጣይ: Genitive or apposed noun	(ሐ) አንቀጽ: Predicate			(መ) ተወሳክ፡ ጊዛዊ፡ መውሊድ፡ (ለማሰሪያ፡ አንቀጽ፡) Adverbial comp- lement (of the principal clause)
		ማሰሪያ፡ አንቀጽ፡ Finite verb	ድርጊት፡ የሚገልጽ፡ ገልጽበት፡ ተሳታፊ፡ Object revealing action	የቃል፡ መግለጫ፡ ተጨማሪ፡ Modifier	
አዴ፡ ምኒልክ፡ Ase Men- elik	የኢትዮጵያ፡ ንጉሠ፡ ነገሥት፡ Emperor of Eth- iopia	ተባሉ፡ he was called	ታላቁ፡ ምኒልክ፡ Menelik the Great	- -	(1) ኢጣልያኖችን፡ በአድዋ፡ ላይ፡ ድል፡ ገነዘ፡ በኋላ፡ (2) በሕዝብ፡ አፍ፡ (1) After he def- eated the Ital- ians at Adua (2) By the people

¹ YSMH, p.166

As can be seen from the above analysis grammatical terminology suited to the task of description is presented but both grammarians are dependent to a considerable extent on the principles of English grammar. Thus both attempt to retain the concept of subject and predicate. Märsese Hazän writes:

በረፍተ : ነገር : ሁሉ : በሁለት : ነገሮች : የተቋቋመ : መሆኑን :
 ማወቅ : አለብን :: እነርሱም : በላቤቸው : አንቀጽ : ናቸው :: 1

"We must recognize that every sentence consists of two parts. These are subject and predicate", but the verbal system defeats the attempt to project this analysis so that in analysing

ከንደርጌ : ላይ : አንድ : አምስት : ብር : መነተፈ :: 2

"He collected about five dollars from Andarge"
 Täklä-Maryam Fantaye has to supply አርሱ, "he", as subject.

Previous grammatical studies: non-Ethiopian scholars

This is not the place for an extended survey of the many grammatical studies of Amharic which have been published. Some, such as Massaia's Lectiones grammaticales, published in 1867 are of diminished value because of a failure to take proper note of the work of earlier writers on the subject. Mahler's Praktische

¹ YSMH, p.159

² HTSS, p.103

Grammatik der amharischen Sprache of 1906 can be neglected since the author's knowledge of Amharic was clearly inadequate. On the other hand although C.H. Armbruster's Initia Amharica, published in 1908, is very accurate it is also very brief and cannot be reckoned a major contribution.

Particularly important, however, are the grammars by Ludolf, 1698, by C.W. Isenberg, 1842, by Franz Praetorius, 1879, by Ignazio Guidi ten years later and the two principal publications of Marcel Cohen in this field, his Traité de langue amharique of 1936 and his Nouvelles études d'éthiopien méridional, 1939.

Ludolf's Grammatica linguae Amharicae extends to only 60 pages, divided into six books which cover orthography, morphology, the noun, the pronoun, particles and syntax. Ludolf's informant, Abba Gregory, supplied not only the material on which the grammatical analysis is based but also a few pages of continuous Amharic text. These texts, however, are religious texts and thus their structure probably testifies as much to the Ge'ez originals as to the syntax of Amharic in the seventeenth century:

ተሰቀለ ፡ ሞተ ፡ ተቀበረ ፡ ኅሲኦል ፡ ወረደ ።
 በሦስት ፡ ቀን ፡ ተነሣ ፡ ኅሰማይ ፡ ዐረገ ፡ ተቀመጠ ።
 ወደ ፡ ቀኙ ፡ ለእግዚአብሔር ። 1

"He was crucified, He died, He was buried, He went down to Sheol. On the third day He arose, He ascended to heaven, He sat down at the right (hand) of God".

¹ op. cit., p.57

The two striking features, even of this brief text, are the asyndetic structures involving sequences of verbs and the displacement of the main verb from the sentence final position which is almost invariable today. But it is impossible to determine whether this represents the state of Amharic in Ludolf's day or whether the Amharic is a learned variant.

It is unfortunate that C.W. Isenberg's Grammar of the Amharic language is also of limited value since we cannot be sure of the sources he used. This is unfortunate since the texts at page 183 show some provocative features: the verb is replaced, as the almost infallible indicator of the end of a period by a range of other structures:

ሁሉንም : ወንድሞችህ : ናቸው :
 ሁሉንም : ታላቆችና : ታናሾች : ብላጋተኞችና : አገራችሁ :
 በሰባ : ክፍሎች :
 ዘመናችሁ : ያሉትህ : ያደገው : ልጆች : 1

"And all of them are your brothers,
 all of them: great and small, wise and foolish,
 good and evil
 your kinsmen, children of your father Adam".

We know that Isenberg published materials in the Amharic language. The above passage he quotes from his own Geography. It is very

¹ p.183, but quoted from the preface to his own Geografiya, yä-meder temhert, published in 1841.

probable that he wrote the book himself in Amharic, or at least that he wrote the English original and then supervised the translation into Amharic. In either event it is clearly not possible to use the textual materials as evidence of genuine Amharic sentence structure.

No such strictures are necessary when we consider Franz Praetorius' Die amharische Sprache. The Introduction deals with the history of the language and discusses the sources used for the analyses. The main part of the book is then divided into three sections, dealing with orthography and phonology, accidence and syntax. The book closes with a range of texts including parts of the Royal Songs and correspondence of the Emperor Theodore. The grammar itself is a historical grammar, with constant reference to original material in Amharic. Caution should, perhaps, be taken in view of the fairly large body of references to biblical sources. Since this is translation material it must almost inevitably display evidence of the structure of the original language from which the translation was made.

Guidi's Grammatica elementare della lingua amarica is very concise, with 33 pages devoted to morphology and 19 to syntax although questions of syntax are treated throughout the book. Guidi acknowledges his indebtedness to Praetorius and in spite of its conciseness, or perhaps because of it, the work is most

valuable. Ullendorff says that it

"still affords the quickest and most effective orientation in this complex linguistic structure"¹.

Mention may also be made of the same author's Vocabolario amarico-italiano, published in 1901², which is very much more than a simple vocabulary.

And finally mention must be made of Marcel Cohen's two works mentioned above. Nothing has appeared to challenge the breadth of the study made here of every aspect of Amharic. It is true that they are most useful to those who already have some knowledge of the language, but there are other and more elementary works available for those who need them.

More recent studies in Amharic include Major Alone's Short Manual of the Amharic language, published in 1909 and revised by D.E. Stokes in 1946, and C.H. Dawkins' The fundamentals of Amharic published in Addis Ababa in 1960. This last is an attempt to survey, at a very elementary level, the entire range of colloquial Amharic.

¹ AC, p.4

² And the Supplement, with Francesco Gallina and Enrico Cerulli, published in 1940.

CHAPTER TWO: AMHARIC SYNTAX

The Amharic sentence: definition, classification of sentences;
The compound and complex sentence: the classification of clauses,
clause analysis; Syntactical analysis: Ethiopian grammarians,
transformational approach; Sentence structure: in books, in the
newspaper.

CHAPTER TWO: AMHARIC SYNTAX

The Amharic sentence

The examination of punctuation as employed in writing Amharic, which was undertaken in the preceding chapter, makes it clear that punctuation can usually be no more than a general guide to sentence boundaries. Both arat näṭeb and derrəb sārāz may indicate the close of a sentence, but the absence of these signs is no certain guide to the existence of a continuing period. Since in the course of this chapter we shall be examining the distribution of sentence lengths in Amharic prose we need to consider the definition of the term sentence.

Definition Concerning the sentence Bloomfield wrote:

"In any utterance, a linguistic form appears either as a constituent of some larger form.... or else as an independent form, not included in any larger (complex) linguistic form. When a linguistic form occurs as part of a larger form, it is said to be in included position; otherwise it is said to be in absolute position and to constitute a sentence"¹.

The criterion here is that of grammatical completeness. This is also the criterion suggested by Robins:

"Traditionally the longest structure within which a full grammatical analysis is possible has been taken as the sentence"²,

¹ Language, p.170

² GL, p.190

and, to quote Robins again:

"A sentence is by definition grammatically complete"¹.

Perhaps a little less satisfactory are the definitions of Pei and Gaynor and A.F.L. Beeston; the former offer this definition:

"A number of words arranged grammatically and syntactically so as to constitute a grammatically complete sense unit"² and Beeston suggests that a sentence is

"A word or group of words constituting a complete and satisfactory communication"³.

For our present purpose we shall accept the following definition:

"A sentence is a grammatically complete utterance".

From this definition two requirements emerge, one concerning the internal structure of the sentence and the second concerning the external environment of the sentence.

Firstly, then, the definition requires that if any element in the supposed sentence is included in position then the entire included structure must lie within the sentence. Thus if we consider

¹ GL, p.191

² DL, p.194

³ Written Arabic, p.6

the word ሰዎች: , "people", in the following sentence we note that it is the head of an extended structure:

ብሔራዊ : የፊደል : ሠራዊት : ማኅበር : ዝቅቅር : ጊዜ : ጀምሮ :
በሽማግሌ : ቋንቋ : ማኅበራዊ : መደብ : የተማሩ : ሰዎች :
የሚኖሩበት : መዳከሞች : በማጣት : ምክንያት :
ወደሰላምታ : ደረጃ : እንዲመለሱ : በማለት : ርምጃ : ወሰዷል። 1

"The National Literacy Campaign has determined that no-one who has learned to read and write since its inception shall relapse into illiteracy as a consequence of the non-availability of reading books".

Since the word ሰዎች: is within the boundaries of the sentence our definition requires that the entire included structure should also lie within the sentence boundaries.

It may not, however, be sufficient to investigate the structure of the extended text supposed to comprise a sentence. For even if this structure is grammatically complete an element outside the text may indicate a continuing period. For example, in general, we may say that the sequence preceding Amharic አለ: , "he said", will constitute a sentence:

መቅሠፍት : መታዘዝ : ሳውቀው፤ አገር : ሊጠፋ : ነው : ብዬ :
ባልናገር : ኖሮ፤ በሰማይ : ቤት : በነፍሴ : እጠየቅበት : ነበር።2

"Knowing that a plague is ordained, if I failed to cry, "The land is about to be lost!" then in my heavenly abode, in my spirit, I would be called to account for it".

¹ Addis Zāmān, Tahsas 8 1959 E.C., p.1

² YG, p.126

In this sentence the three words አገረ፡ሊጠፋ፡ኅወ፡, "The world is about to end" are grammatically complete but the following gerund ብዬ፡ indicates that they are, in fact, in included position and so form part of the larger unit.

In general the definition we have given will suffice for the identification of the boundaries of sentences. It should, perhaps, be noted, however, that the enclitic -ኛ፡, a co-ordinating conjunction, is frequently suffixed to the opening word of a sentence as a stylistic device. It cannot necessarily¹ be taken as an indication of a continuing period. Thus taking a page of Yä-Ityopya hezb tarik at random I find sixteen sentences of which seven display suffixed -ኛ፡ on the opening word.

The appearance of a main verb is, of course, a very valuable indicator of the close of a period. In a mimeographed report² from the Ethiopian Ministry of Education R.G.Davis indicates that in an analysis of 1697 Amharic sentences generated by schoolchildren there were only twenty in which the main verb was not in sentence final position. And in all but two of these twenty sentences an interrogative sentence closed by an enclitic was found.

¹ But compare DAS, pp.438-442, where the function of -ኛ፡ is set out in detail. I am not suggesting that the particle has now lost all function apart from style, only that it cannot be taken as the infallible indicator of a continuing period. It parallels, perhaps, Greek δε .

² ALR, published in Addis Ababa in May 1956. Although deficient in many respects the report contains statistics of sentence analysis which are of great interest and value.

While this is the position today it has not always been so. Thus, considering the "Abu Rumi" version of the Amharic Bible¹ and taking fifty chapters from the Old Testament (Joshua, chapter one and part of chapter two) and fifty from the New Testament (Mark chapter two), we find thirty sentences out of the one hundred ending in some item other than the verb. In the Emperor version, however, over the same passages, we find that every sentence closes with the verb. It is true that we cannot take Bible Amharic as necessarily representative of the Amharic of other literature of the same period. However other Amharic literature of the nineteenth century and earlier displays a similarly less fixed word order. Thus in the passage taken from the Däbtärä Zaneb version of the King Theodore Chronicle reproduced by Ullendorff² we find the following sentences:

ከብቱም፡ ባለቀ፡ ጊዜ፡ እቃውም፡ ሁሉ፡ በእምባው፡ መቀደላ፡ ገባ፤
 ቆሺ፡ የሚሆን፡ ነፍጥ፡ ጄ መድፍም፡፡

"And when the livestock and all the supplies were finished he entered the Amba of Magdala: some two thousand rifles and two field guns",

ወደ፡ እመዴ፡ በሸርም፡ ገሠገሠ፤ ሳያገኙት፡ ተመለሱ፡
 በእግዚአብሔር፡ ድልድይ፡፡

"And they journeyed on to Amäde Bäšer; they returned without reaching it, to the Bridge of God",

¹ For details of the two Bible versions referred to here see E. Ullendorff, Ethiopia and the Bible, pp.62-67.

² AC, p.32

የጩራቻ፡ ወንዝ፡ ብዙ፡ ሰው፡ ወሰደ፡ ውሀው።

"The *Ḥārāṭa* river took many people, that is, its water",

ከዚያም፡ ሲመለሱ፡ ተሸላ፡ ደራሲ፡ ዘረፉት፡

ከብቱንም፡ ሁሉ።

"And as he returned from there he sacked *Tākulä Dären* and all its animals".

In modern written Amharic, however, the appearance of the main verb is a most useful marker of the close of a period. It is true that there are exceptions, especially where the style is colloquial or conversational:

የገዛህንም፡ ደም፡ የሚመለስ፡ አንድ፡ ሰጅ፡

ሰንገረ፡ መኖሩን፡ እንጂ። 1

"I don't suppose that there is even one youth capable of repaying this blood",

or, of course, where the Amharic *terät*, with its elliptical form, is used: ዝናብ፡ ሳይመጣ፡ ሁሉ፡ ቤት፡

እንጣዳ፡ ሳይመጣ፡ ሁሉ፡ ቤት፡

"Until the rain comes every house (is a good one)

Until a visitor arrives every woman (is a ?faithful? one)".

But the appearance of a main verb is the most usual indicator of the close of a period. In the indicative mood the final verb (of a sentence) will be a verb in the perfect, either the main verb itself or an auxiliary².

¹ WL, p.47

² G. Goldenberg, "On the Amharic tense system", JSS, IX, 1(1964), pp.47-49.

Classification of sentences Blatta Märse'e Hazän finds¹ four categories of sentence: ሰተታዊ፣ ትእዛዛዊ፣ ጥያቄያዊ፣ and አጋናኝ፣, Indicative, Imperative, Interrogative and Exclamatory. As examples he gives the following:

ከበደ፡ ወደ፡ ቤቱ፡ ሄደ፡፡	,"Käbbädä went to his house",
ከበደ፡ ወደ፡ ቤቱ፡ ይሂዱ፡፡	,"Let Käbbädä go to his house!",
ከበደ፡ ወደ፡ ቤቱ፡ ሄደዋል?	,"Has Käbbädä gone to his house?",
እንዴት፡ ያለህ፡ ሰነፍ፡ ምረሃለ፡፡	,"How is it that you are so lazy!".

His examples give emphasis to the fact that in Amharic there is often little structural difference between the sentences of the various categories which may be proposed. Even the enclitic ወይ፣, in the interrogative sentence, may be dispensed with, intonation being an adequate indication of the sentence type. The fourth category set up here does not present any one pattern of structure but contains a variety of minor-type sentences².

In fact if the simple sentence, that consisting of only a single clause, is considered, then it is not easy, for Amharic, to set up a system of sentence classes based on structure. Even the copula sentence does not always differ radically in structure from the non-copula sentence form and it would not be difficult to construct a transformational programme which would derive the one sentence form from the other. This is particularly so where

¹ YSMH, pp. 158-9. Täklä-Maryam Fantaye finds the same four types of sentence: HTSS, p.97.

² Robins specifically points to exclamatory sentences as examples of minority pattern sentences: GL, pp.232-3.

the copula sentence displays a relative as subject:

መጽሐፉን፡የወሰደ፡እርሱ፡ነው። , "He is the one who took the book",
 እርሱ፡ መጽሐፉን፡ ወሰደ ። , "He took the book".

The transformation appears to take place by the nominalizing of the finite verb (ወሰደ፡ → የወሰደ፡) and this is then displaced from sentence final position by the copula which attracts the disjunctive personal pronoun into its environment.

There are other ways of classifying sentences. Fries, for example, suggested that the situation in which the sentence is generated might itself form the basis for classification. Sentences may then be termed initiating, continuative or responsive¹. The initiating sentence opens a conversation or sequence, having the potentiality for silence on one side of it. The continuative sentence follows the initiating sentence without change of speaker, and the responsive sentence follows an initiating sentence but with change of speaker. M.B. Lewis sets up three categories of sentence, declarative, interrogative and imperative and further recognizes two types of sentence, simple and compound².

For the classification of Amharic sentences it is, perhaps, most helpful to consider the form of verb appearing in the main clause. We may make use, here, of the system of verb classes set up by Märse'be Hazän. His first basis of division³ establishes three

¹ C.C. Fries, The structure of English, New York, 1952.

² Sentence analysis in modern Malay, p.66

³ YSMH, pp.75-79. Täklä-Maryam Fantaye notes only the first two verb classes (HTSS, pp.32-39).

classes of verb: ተሻጋሪ ፣ የጣይሻገር፣ and ነገር፣ . In the first class the action of the verb "passes over" to a person other than the subject of the verb, in the second it does not, while the third group consists of verbs of existence such as ነው ፣ አለ ፣ ይህ፣ .

This basic division, when applied to sentence classification, leads to a system similar to that of J.B. Carroll¹ who divides sentences into two main classes, existence assertions and predications. Existence assertions would correspond to sentences containing verbs of Märse'e Hazän's class three and predications would be sentences employing verbs of the other two classes. Märse'e Hazän's second line of verb classification makes possible a further sub-division of sentence classes. He classes verbs as ገቢር ፣ ተገብሮ፣ or ወላዋይ፣ , that is they take a direct object, cannot take a direct object or else sometimes do and sometimes do not take one.

Thus although the order in which the items in a sentence appear is fairly fixed, the actual items which may appear in a specific sentence are determined by the form of the main verb. This verb may be an existence verb, a transitive verb, an intransitive verb, an active, a passive or a reciprocal verb. It is the main verb which provides the best indicator of sentence structure for the simple sentence.

¹ Language and thought, pp.24-25

The compound and complex sentence

The various expansion processes make possible the extension of a given structure to produce compound or complex sentences. In the former structures qualifiers are added to given items, or co-ordinating processes may permit items of equivalent syntactical status to be joined together. For complex structures some included portion of the sentence attains the status of clause.

The classification of clauses Following Pei and Gaynor we define a clause as:

"...a subdivision of a sentence, containing a subject and a predicate (or a word which implies or replaces a predicate)"¹.

For Amharic we may say that the predicative part of the clause will include a verb or verbal noun (infinitive or relative).

Clauses may be classified on the basis of their relationship to the kernel sentence assumed to underlie the expanded structure, or on the basis of the structure of the clause itself. Thus in the sentence

ጣርጣጃ ፡ ንጉሠ ፡ ነገሥት ፡ ያለፈው ፡ አሁን ፡ ወደ ፡ ዋሽንግተን ፡ ቢ ፡ ሔዱ፤ ንጉሣው ያን ፡ ቤተ ፡ ሰብ፤
ክብራን ፡ ሚኒስትሮችና ፡ መኪንንት ፡ በ አካላት ፡ ጣርጣጃ ፡ ተገኝተው ፡ ሸኝተዋቸዋል። 2

"Last Sunday, when His Majesty the Emperor went to Washington, members of the Royal Family, honourable Ministers and Leaders being at the airport saw him off",

¹ DL, p.40

² AZ, Hedat 16 1956 E.C.

we have a clause, subordinated by the conjunction \hat{A} -, which may be described as an adverbial clause in its relationship to the verb of the main clause, or as an imperfect clause because of the nature of the subordinated verbal form employed.

If the basic structure of the sentence be considered as consisting of one or more of the following: subject, object, verb, it is clear that clauses may qualify or, alternatively, may constitute any one of these. We might then follow the example of Zandvoort¹ and label the various alternatives to give a comprehensive analysis of clause types. A subject clause then becomes one in which the subject of the kernel sentence has been expanded to the status of clause. Since we are concerned rather with the structures of the clauses than with the expansion concept which underlies Zandvoort's system it is more useful to adopt the alternative and label clauses descriptively in accordance with the verbal forms they display. We shall thus refer to relative clauses, imperfect clauses and infinitive clauses.

Clause analysis The isolation of clauses and the consequent presentation of the analyses may be effected in prose or by tabulation, as is done by the Ethiopian grammarians we have been principally concerned with thus far, or by the more refined techniques of transformational theory.

¹ R.W. Zandvoort, A handbook of English grammar, in chapter 2 of part 5.

1. Syntactical analysis: Ethiopian grammarians Täklä-Maryam

Fantaye¹ considers the analysis of extended sentences in some detail and his analysis is repeated here for two representative sentences.

Sentence 1.

የዛሬ : አሥራ : አምስት : ቀን : የተከሰኘው : ባሕር : ዛፍ : ጠፈቀ ::

"The eucalyptus tree that you planted a fortnight ago has taken root"

Analysis:

መጀመሪያ : ሐረግ :

(Main clause)

ባሕር : ዛፍ : ጠፈቀ :

"The eucalyptus tree has taken root"

ጥገኛ : ሐረግ :

(Subordinate clause)

የዛሬ : አሥራ : አምስት : ቀን : የተከሰኘው :

"That which you planted a fortnight ago"

መጻፍ :- ቅጽገጫ : ጥገኛ : ሐረግ ÷

ባሕር : ዛፍ : የሚለውን : ስም :

ይገልጻል ::

Function: Adjectival subordinate clause, modifying the noun "eucalyptus tree".

¹ HTSS, pp.103-105

Sentence 2

ደጅዝማቹ : በየነን : በማይ : ጩካ : ማዳ : ላይ : የጀብዩ : ሠራ :
 የሠራትን : ማንም : ሰው : ያውቅቶታል።

"Everyone knows Däḏazmaṭ Bäyyänä, the man who did so nobly
 on the (battle)field of May Ṭäw"

መደበኛ : ሐረግ :

(Main clause)

ደጅዝማቹ : በየነን : ማንም : ሰው :
 ያውቅቶታል :

"Everyone knows Däḏazmaṭ
 Bäyyänä

ጥገኛ : ሐረግ :

(Subordinate clause)

በማይ : ጩካ : ማዳ : ላይ : የጀብዩ :
 ሠራ : የሠራትን :

"he who did so nobly on the
 (battle)field of May Ṭäw"

መደብ:- ተጠማሪ : ጥገኛ : ሐረግ ፥
 ተጠማሪነቱም : ለመደበኛው :
 ሐረግ : ባለቤት : ለደጅዝማቹ :
 በየነን : ነው።

Function: Clause in apposition¹.

The clause is in apposition to the subject of the main clause, Däḏazmaṭ Bäyyänä.

¹ The construction involving the noun in apposition is discussed cursorily on page 15 of the grammar. The construction is, of course, quite common in Amharic.

2. Syntactical analysis: transformational approach. Until the introduction of transformation theory into syntactical analysis the classical approach to sentence structure was through the examination of immediate constituents. There was thus built up a range of constituents whose relationships to one another could be illustrated diagrammatically. It is not difficult to analyse Amharic texts using the principles of immediate constituent analysis although the synthetic nature of the language makes this approach less fruitful than it is for languages of the analytic type.

The fact that languages may be analysed syntactically in terms of expansion processes has been recognized for a long time. Indeed Praetorius, in 1879, had proposed¹ that the cleft sentence

የተቃጠለው ሰዎች ነው? , "When was it burned?"

should be treated as a derivative of the shorter ሰዎች ተቃጠለ? . The transformational theory associated particularly with the work of N. Chomsky and Z.S. Harris would attempt to include morphology within its scope so that sentences generated from kernel sentences by application of transform rules would be grammatical both as regards morphology and syntax.

In considering the problem of Amharic morphology in terms of transformation theory A. Koutsoudas has examined² the third

¹ DAS, p.359; cf. also Cohen TLA, p.120 and G. Goldenberg's comments in "Studies in Amharic syntax", JES, III, 1(1967), p.18.

² Writing transformational grammars, pp.63-64

person masculine singular and the third person plural of the perfect and compound imperfect of five verbs: ወደደ፡ , "to love", ወሰደ፡ , "to take", ጠገደ፡ , "to feed", ገፈለ፡ , "to pay"¹ and ደገመ፡ , "to repeat". He isolates two important features which must be taken into consideration in producing transformational rules for the generation of the selected verbal forms: reduction, where the final -ə of the singular form (his transcription) does not appear in the plural form assumed to be its transform, and discontinuity, in which the affix of the compound imperfect, assumed to be one for the purposes of his grammar, is separated into two parts by the verb stem: ye-kefil-al.

Koutsoudas' treatment is set out here in some detail. His own defective transcription is employed at first and then corrected and his formulae amended to produce an acceptable transformation. It will be noted that Koutsoudas is, at once, confused by the first example he has selected, a verb with a repeated radical, the verb then failing to follow the pattern of modification of the other forms. His presentation follows: in his transcription he uses j to represent ʔ, the first order vowel is rendered ə and the sixth order vowel is i. He appears to be quite unaware of the role of gemination in the conjugation of the verb in Amharic.

¹ Or "to divide".

Problem 7: Amharic, a language of Ethiopia.

Present

Singular		Plural
1. jigewidal	he loves	1a. jigewidalu
2. jiwesidal	he takes	2a. jiwesidalu
3. jimegibal	he feeds	3a. jimegibalu
4. jikefilal	he divides	4a. jikefilalu
5. jidegimal	he repeats	5a. jidegimalu

Past

1b. gewede	he loved	1c. gewedu
2b. wesede	he took	2c. wesedu
3b. megebe	he fed	3c. megebu
4b. kefele	he divided	4c. kefele
5b. degeme	he repeated	5c. degemu

The errors in transcription are very evident. The problem may be re-stated using the transcription employed elsewhere in this study, and employing the verb ወገደ: only:

2*. yewäsdal	2a*. yewäsdallu
2b*. wässädä	2c*. wässädu

We must now examine Koutsoudas' transformational rules.

Koutsoudas sets out his transformational rules as follows:

- | | |
|------------------|-------------------------|
| 1. W → Vs + Afv | 5. Vs → wsd |
| 2. Afv → T(Pl) | 6. Tob |
| 3. T → Pres, pas | CCC + pas ⇒ CəCəCə |
| 4. Pl → u | 7. Tob |
| | CCC + pres ⇒ jiCəCiCəal |
| | 8. Tob reduction |
| | ə + Vw ⇒ Vw |

These rules are to be interpreted:

1. Rewrite the word as a verbal stem plus an affix to the verb
2. Rewrite the affix to the verb as either tense or tense plus plural form
3. Rewrite tense as either present or past
4. Rewrite plural as u
5. Rewrite the verbal stem as wsd
6. Apply the obligatory transform
 - 3 consonants + past to be written as consonants plus e
7. OR follow the obligatory transform
 - 3 consonants + present to be written with prefixed ji, suffixed al and the consonants followed by the vowels as indicated
8. Apply the obligatory vowel reduction: where e precedes any vowel the combination should be replaced by that vowel alone.

Application of the rules results in the generation of the (incorrect) forms jiwəsidal, jiwəsidalu, wəsədə and wəsədu.

In order to obtain the correct forms we must modify rules 3, 4 and 6:

Rule 3 becomes $T \rightarrow \begin{array}{l} \text{Pres} \\ \text{Pas} \end{array}$

and this makes allowance for the fact that the suffix to be supplied in the two cases is different.

Rule 4 becomes $Pl \rightarrow \begin{array}{l} lu \\ u \end{array}$

which then provides the correct suffix for each tense.

Rule 6 becomes Tob

$CCC + \text{past} \Rightarrow C\grave{a}CC\grave{a}C\grave{a}$

By the substitution of these new rules and the adoption of a suitable method of transcription we do obtain the four required forms. And there is no reason to suppose that correct rules could not be formulated to cover the remaining forms. Having said which, however, it is reasonable to ask if the complex assembly of forms still untouched will require treatment on the same, or similar, scale as that required for the four forms discussed here. For not only have we to deal with the remaining persons of the forms now generated, but provision must also be made for tri-radical B and C type verbs, verbs with medial and final vowels other than ä, verbs with repeated radicals, reciprocal verbs, defective verbs and so on.

But if it follows that the transformational approach cannot provide a practical means of codifying the entire range of morphological variations, not because of any inherent weakness but because of

the sheer complexity of the solution, it may be that, as Robins has suggested¹, the method may prove helpful in specific areas of grammatical analysis. If this is so we shall be unaffected by Hockett's appraisal of transformational grammars² since his objections would appear to apply only to attempts to use the approach to provide a total grammar.

Sentence structure in books

Since the publication of the first Amharic novel in 1908, hundreds of books have been published, although few of these could be classed as literature. From this amorphous collection six works were selected and an analysis made of the salient points of syntax found in them. Of course there can be no such thing as a book typical of a period. These six books were chosen more or less at hazard, although an attempt was made to select representatives from each decade over the period 1900-1965.

¹ General linguistics, p.243; The passage is concerned primarily with transformational analysis as applied to syntactical problems and Robins says: "In many cases the syntax of longer sentences can be satisfactorily explained either in established immediate constituent terms or in transformational terms, and often jointly by the application of both methods".

² C.F. Hockett, The state of the art, The Hague, 1968, particularly the chapters on "The status of language" and "The Chomskyan view dissected".

To avoid a completely subjective appraisal of the books the analysis was based on one hundred consecutive sentences from each. In general the passage analysed was selected at random, but where the passage examined consisted largely of conversation it was rejected and another chosen. Clearly conversation necessitates the repeated use of the typical formulae $\text{ἰὸς} : \text{ἰσῆς} :$, $\text{ἰὸς} : \text{ἰσῆς} :$, "he said", "he replied", and these formulae would unduly affect the verb counts. In the novel it is not easy to avoid conversation entirely over an extended sequence and, provided that the conversation was not obtrusive grammatically, it was not always taken as ground for the rejection of a passage.

When the texts had been selected they were carefully re-punctuated, using the principles discussed in chapter one, above, and the sentences identified in accordance with the principles given in the present chapter. The following aspects of syntax were then considered:

1. Distribution of sentence lengths A simple count was made of the numbers of sentences in each sample with lengths lying within a given range.
2. Calculation of average sentence length Over the selected text the total number of words was counted (where numerals appeared they were treated as the equivalent words) and divided by the total number of sentences to give an average sentence length. Prepositions and conjunctions were treated as affixes.

3. The verbal structure A classified count was made of the numbers of subordinated verbs, gerunds and main verbs occurring in the passages. The verbal nouns, infinitive and relative, were also counted.

4. Miscellaneous features A count was made of co-ordinating and subordinating conjunctions and of the number of occurrences of accusative -ን: (to be distinguished from interrogative -ን?). This particle functions primarily as direct object marker but may also indicate indirect objects or even an adverbial modifier.

In selecting these items for analysis it was assumed that an assessment of the frequency of occurrence of the various syntactical forms and particles might indicate the general characteristics of the written language and suggest some of the comprehension difficulties which might be produced.

Turning to a brief examination of each of the books we consider firstly Afäwärik Gäbrä-Yäsus' book, published in Rome in 1908, the title of which represents the proper term for the new genre of literature¹, Ləbb wälläd tarik, literally, "A story born of the heart", "A novel". The novel indicates a marked predilection for the co-ordinating conjunction -ና: with verbal sequences: አሉቡና: ተጣገኑ: , "they thought and discussed", አለና: ነገረው: , "he said and told him". These constructions occur together with those

¹ AC, p.12. Type-setting in Rome was not without difficulty; one notes page numbers inverted on pages 4,7 and 10. The serifs above and below the numbers witness to the error.

structures featuring the gerund which are more common today. In the passage analysed 49 out of 59 occurrences of the co-ordinating conjunction -ና:¹ were associated with verbal forms. Apart from this one feature the novel does not appear to differ in its syntax from the Amharic of today.

The second book, Wädaäde ləbbe, "My friend my heart", by Heruy Wäldä-Sellassie, was published in Addis Ababa in 1915 (1922-23). It is a homiletical work, somewhat in the style of Pilgrim's Progress. The text is conversational and this has resulted in generally short, uncomplicated, question and response sentences, averaging only 10.1 words per sentence. The author's style is notable principally for his preference for the compound verbal form where other writers might have used a simple form². He uses the relative construction somewhat less frequently than the other five authors. For the six books the relative appears on average once in 14 words, but in this book once in 35 words.

The well-known novel Araya, by Gərmattäw Təklä-Hawaryat was written in 1938-39(1945-7) and first published in Asmara. The story is, perhaps, dull (the theme re-appears in Yä-dəhoṭ kätäma, "City of the poor", by Ras Mäkonän İndalkatäw), and the style repetitious. The phrase አልፎ:አልፎ:, "again and again", adds little to the numerous structures in which it appears.

¹ -ና: may be used as a co-ordinating conjunction OR as a causal conjunction: cf. G. Goldenberg, "On the Amharic tense system", pp. 53-56 and M. Cohen, TLA, p.166 and pp. 310-311.

² See the discussion in chapter six, below on the principle of selection of simple and compound verbal forms(pp. 254-261).

There is one interesting feature of sentence structure by which the copula sentence is expanded, the temporal subordinating conjunction being employed:

ርሱም ስለ ሰብልና ስላገሩ ጤንነት ሲጠይቃቸውና፣
እነሱ ደግሞ ለላውድ፣ አገር ፡ ኑሮና ስለ ፈረንጆች ግህል፣ እየጠየቁት፣
ሲገረሙ ፡ ነበር ። 1

"And while he asked them about the crops and the well-being of the land and they also, while asking him about Europe and the customs of the foreigners, it was while they marvelled",

and again:

እርሷም ስለ ስሜት ፡ ደኝፍ ፡ ቀጭን ፡ ብሎ፣
ያገሩን ፡ ውበትና ፡ እስክ ፡ መቼም ፡ የማይሰለፍውን ፡
ደህን ፡ የፍጥረት ፡ ውበት ፡
በተደሰቱ ፡ ለዋሳቶች ፡ ሲያጠናቅቅ ፡ ነበር ።²

"While seated at the door of his house, Araya the beauty of the land and this eternally unwearying beauty of creation it was while his delighted senses absorbed it".

This particular construction, ስ-፣ + simple imperfect + copula, is a recurring feature of Geremaw's style.

The average sentence length is 16.4 words, the highest for the six books. This length, however, is not to be associated with the complexity of subordination, but with the use of the

¹ op.cit., p.144

² ibid.

co-ordinating conjunction -፩: with nominals to produce extended qualifying phrases. In the text analysed this conjunction had a frequency of occurrence of 45 times per thousand words, the highest of the six books examined.

The book Armuñ is a collection of the works of Ras Bitwädäd Mäkonnän ፎndalkaččäw. It includes the play Almotkum beye alwašem, which was successfully produced in Addis Ababa, and Yä-dəhoč kätäma, the story of a young man who visits Europe and then returns to Ethiopia. There is little of note to record of the syntax of this book; of the fifty occurrences of the co-ordinating conjunction -፩: all but nine were associated with nominal forms, in marked contrast to the distribution of this particle in Lebb wälläd tarik. The book was published in 1945 E.C. (1952-1953) and it is noticeable that the passage chosen for analysis, from Yä-dəhoč kätäma displayed a sentence length of 15.9 words, averaged over the sequence, compared with the figure of 16.4 words for Araya, whose subject matter is so very similar.

Asäffa Gäbrä-Maryam published his ፎndä wättačč kərräčč in 1946 although it was written, according to the author's note, p.187, in 1941 (1948-9). Lack of funds delayed publication. The book contains a great deal of dialogue in which the word order usual for prose is disturbed, the verb no longer invariably closing the period:

« የሽ : ዓለፎ : ሆይ : » እለ : ዘለቀ :¹

"Yäši Aläm!" he called, Zälläččä,

¹ op.cit., p. 9

«ሉልጋዎ፡መንዝዎ፡ሸፍቷል፡»አለ፡ዘለቀ።¹

"Both Bulga and Mänz have risen!" he said, Zälläkä,

«ፈቃድሽን?» አለች፡የሺ፡በቁጣ፡ቃል።²

"Your wish?!" she cried, Yäši, in an angry tone,

ዋና፡አዛኝ፤«ለምን፡መጣህ፡ወደኛ?» ሲሉ፡ጠየቁት።³

The Captain, "Why have you come to us?" saying, he asked him.

Lastly there is the book by Abbe Gobäñña, Melkam (the name of the principal character of the book), which has as sub-title Säyfa näbälbal, "Flaming sword". The book is, in fact, a thinly disguised political tract of a faintly revolutionary character, consisting largely of speeches by Melkam. It is this which explains the very many staccato sentences, copula sentences in particular consisting often of a few words only:

ግብዛው፡ተራ፡ግብዝ፡ነበር።

"It was a proper feast"

አሱዎ፡የጫካ፡ግብዝ፡ነበር።

"It was held in the forest"

በታው፡ጫካ፡የበዛበት፡ነው።

"The place was thickly forested"

ከዋናዋ፡ከተማ፡ከዲዮርና፡አሥራ፡

"It was but ten leagues from the

ምዕራፍ፡ብቻ፡ደርቃል።⁴

capital, Diorna".

That the average sentence length is as high as 14.0 words is explained by the occasional very lengthy sentence: one extending to 40 words occurs at the bottom of the page from which the above extracts are taken.

¹ ጅንደራ ወገን ገጽ 10

² ibid.

³ ibid., p.23

⁴ op.cit., p.163

Perhaps typical of Abbe Gobăňňa's style is the use of the articular infinitive: አንደመሆናችን ÷ በመሆናቸው ÷ ነገላማወቃችን ÷ ባለመሥራታችን ÷ በመሆኑ ÷ መፈለጉን ÷ መሆኑን : appear between pages 39 and 43 as examples of this useful device.

We have briefly indicated some of the characteristic features of the six books investigated. Statistical tables follow and the contents of the tables are then further discussed.

Table 1: Sentence length

No. of words in sentence	LWT 1908	WL 1923	ARA 1945	IWK 1954	ARM 1953	MLKM 1964	TOTAL
1 - 5	9	21	6	10	3	15	64
6 - 10	30	31	17	17	27	18	140
11 - 15	30	26	29	28	26	28	167
16 - 20	11	14	22	16	20	23	106
21 - 25	15	6	13	12	7	9	62
26 - 30	2	1	3	6	7	3	22
31 - 35	4	1	4	6	5	3	23
36 - 40	-	-	-	3	2	1	6
40+	2	-	3	2	4	-	11
Total no. of sentences	103	100	97	100	101	100	601
Total words in sample	1466	1083	1588	1640	1602	1399	8778
Avg. words per sentence	14.2	10.1	16.4	16.4	15.9	14.0	14.6

Histogram illustrating the distribution of sentence lengths
in six novels

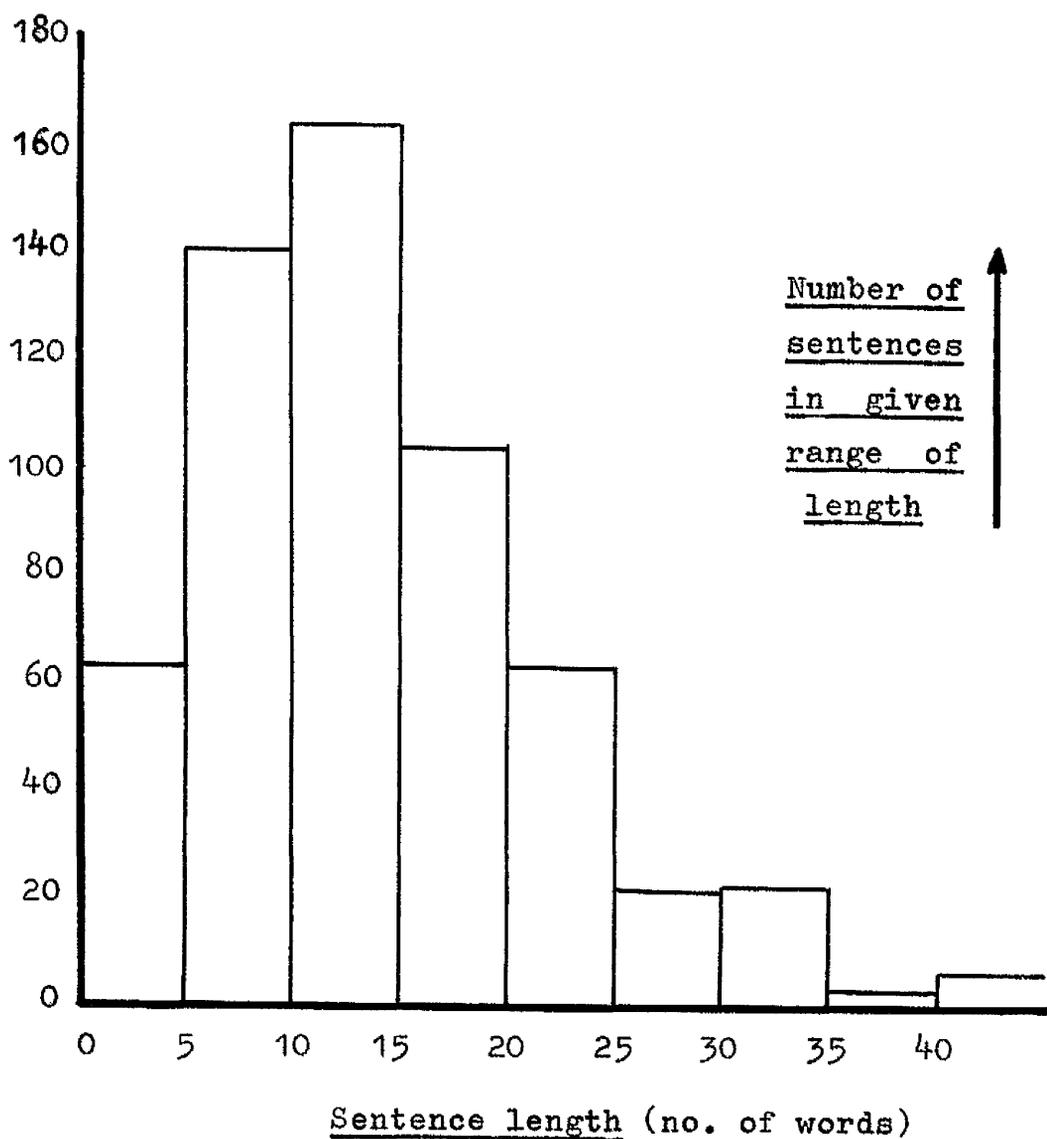


Table 2: Syntactic structure

Syntactic feature	LWT	WL	ARA	IWK	ARM	MLKM	TOTAL
-᠑: with verbs	49	16	17	22	9	2	115
-᠑: with nouns	10	20	72	55	41	55	253
-᠑: accusative	89	71	83	101	65	98	507
Disjunctive ᠠᠶᠢᠨᠡ:	5	8	1	2	-	9	25
Conjunction -᠑ᠦ:	82	53	28	57	43	39	302
Subordinating particles	117	72	117	123	99	98	626
Gerund	99	81	84	63	87	32	446
Relative	71	31	122	142	121	139	626
Simple imperfect ¹	10	39	-	2	-	4	16
Primary verbs ²	213	194	84	111	107	68	777
Copula	30	34	25	22	12	43	166
Infinitive	38	26	31	74	40	67	276

Since the total numbers of words analysed from the various books varied considerably some of the more significant statistics from the above table were re-calculated to give the frequency of occurrence of the feature per thousand words.

¹ Not including occurrences of the simple imperfect preceded by a subordinating conjunction.

² Non-subordinated finite verbs, but excluding those forms tabulated separately.

Table 3: Comparative syntactic structure

The figures in this table indicate the frequency of occurrence of the feature listed, per thousand words.

Syntactic feature	LWT	WL	ARA	IWK	ARM	MLKM	OVERALL
-ŋ: with verbs	33	15	11	13	5	1	13
-ŋ: with nouns	7	19	45	34	25	39	29
-ʒ: accusative	61	66	52	62	41	70	58
Conjunction -go:	56	49	18	35	27	28	34
Subordinating particles	80	67	74	75	62	70	72
Gerund	67	75	53	38	54	23	51
Relative	48	29	77	87	76	99	71
Primary verbs	145	180	53	68	67	49	88
Copula	20	31	16	13	7.5	31	19
Infinitive	27	24	19	45	25	48	31

The books are listed in the tables in general chronological order, Endä wättaŋ kärräŋ being placed out of order so far as date of publication is concerned in view of the author's own clear statement regarding the long interval between writing and publication.

The period of approximately 60 years between the appearance of the first and last of the books examined is obviously too brief to expect any clear trend in the development of syntax to appear. One factor may, however, be commented on. There appears to be a fairly consistent decline in the frequency with which the copulative conjunction -ፋ: is employed with verbal forms. This offers objective confirmation of the subjective impression gained when reading early Amharic (that published before 1920) that the conjunction is frequently used where today the gerund would be more acceptable.

The value of the tables, however, is not limited to chronological comparisons for the statistics display the very bare bones of Amharic sentence structure. We note first of all the average sentence length of 14.6 words. Subordinating particles have a frequency of occurrence of 72 per thousand words and the relative construction 71 per thousand words. These figures show that an average Amharic sentence would contain one subordinating particle and one relative construction, and in addition either a gerund or an infinitive would be present. The figure applicable to the relative construction is particularly valuable as confirmation of Ullendorff's judgement which placed the relative construction at the centre of the system of "enclosures and encasements"¹.

¹ CA, p.15

A note of caution needs to be added with regard to the total of main, or primary, verbal forms. The figure of 777 is swollen by the first two works analysed. The first of these exhibits a tendency to asyndeton, but the second consists largely of conversation with the accompanying repetition of various forms of the verb $\lambda\lambda:$, "to say". There are 25 occurrences of this verb in its primary forms and 6 gerund forms so that some allowance needs to be made in interpreting the figures given in the tables.

Making allowance for this fact we find that again there is approximately one primary verb for each average sentence. This would confirm the deduction that sentence expansion is not through asyndeton as applied to verbs, nor by the co-ordination of verbs (for each of these processes would swell the total of primary verbs counted) but by subordination processes and the use of the verbal nouns.

Finally we note that the histogram illustrating the distribution of sentence lengths in the various books shows that the long sentence forms only a minority segment of the overall sentence distribution. In fact 90% of all the sentences had 25 words or fewer in them. And only 11 sentences out of the total of 601 examined, 2%, had more than 40 words in them.

Sentence structure in the newspaper

A summary analysis of the Amharic used in newspaper articles was made, following the general pattern of analysis employed in the preceding section. Since a total of only one hundred sentences was identified and analysed it is not possible to draw anything more than tentative conclusions from the analyses.

The articles appearing in a newspaper are written by a range of authors and reflect a broad spectrum of subjects. Quite a large number of the articles are based on translations of news agency reports. Other articles are transcriptions of speeches. There is usually a section for letters to the editor.

In considering sentence structure in the newspaper, then, care must clearly be taken to ensure that translation material is not included in the sample analysed, nor materials, such as might occur in the letters section, from correspondents who use Amharic as a second language. In the present analysis two sources were used, the leading article on the front page of Addis Zäman, and the column headed ለጣሊታወሰ፡፡፩ህል፡, which might be paraphrased as "A gentle reminder". It usually deals with some failure on the part of local authority. The issues used were those for Nēhase 2 1955 E.C., ፕጥ 2 1956 E.C., and Hedat 16 1956 E.C.

The average sentence length was 12.0 words, lower than that for any of the six books analysed except for the a-typical Wädaäde lebbe whose sentence structure, as we have seen, is influenced by the conversational style adopted. To compare this figure with another type of literature an analysis of sentence length distribution was also made of TÄklä-Şadeq MÄkuriya's Yä-Ityopya tarik, "A history of Ethiopia", published in three volumes in Addis Ababa in 1935. Again one hundred sentences were isolated and analysed. An average sentence length of 23.3 words was found.

The detailed sentence distributions for the three types of literature are tabulated below. It must be remembered, of course, that only one hundred sentences from the newspaper and one hundred from the History were analysed and the figures can thus not be taken as necessarily representative of the sources.

Table 4: Comparison of distribution of sentence lengths

Source of materials	Range of sentence lengths					Total
	1 - 10	11 - 20	21 - 30	31 - 40	40+	
Newspaper	51	34	10	5	-	100
Six novels ¹	34	46	14	5	2	101
<u>History</u>	5	33	50	10	4	102

¹ The figures for this line are averaged from the totals for the six novels.

The total number of words in the newspaper sample was 1199 and this represents an average sentence length of 12.0 compared with an average of 14.6 words for the novel and 23.3 for the History. Considering the longer sentences we note that those containing more than 30 words provided 5% of the total for the newspaper, rising to 7% for the novels and 14% for the History. It is possible that the markedly longer average sentence length for Tāklā-Şadeq's work is to be attributed to the more scholarly nature of the book, but it may equally well be idiosyncratic.

Table 5: Syntactic structure in the newspaper

Syntactic feature	Total occurrences	Occurrences per thousand words
-ŧ: with verbs	3	2.5
-ŧ: with nouns	24	20
-ŧ: accusative	62	52
Disjunctive ʔŧŧ:	1	-
Conjunction -ŧŧ:	29	24
Subordinating particles	53	44
Gerund	26	22
Relative	95	80
Simple imperfect	-	-
Primary verbs	113	94
Copula	40	33
Infinitive	57	48

In considering the above figures, and the average sentence length of 12.0 words for the newspaper, we find that the average sentence would contain one primary verb, a relative construction, a gerund or infinitive but there is only slightly more than an even probability of there being a subordinating particle. The frequency of occurrence of these particles for the six novels was 72 per thousand words, but it was only 44 per thousand words for the newspaper (and 74 per thousand words for the History). These results again suggest that expansion processes in Amharic are dominated by subordination.

CHAPTER THREE: THE PROBLEM OUTLINED

Sources of complexity: word structure, sentence length,
sentence structure; Comprehension: as retention of information,
as projection of grammatical structure, as ability to generate
a structure

CHAPTER THREE: THE PROBLEM OUTLINED

Sources of complexity

Speech is the most common form of communication and the measure of the efficiency of the communication is the measure in which the information conveyed is comprehended. The individual features of speech may be arranged in a hierarchy, commencing with the phone and phoneme, passing through the word to the phrase, the clause, the sentence and the complete utterance. Superimposed on these elements are prosodic features of intonation which cannot be assigned to any rigidly limited point of the speech stream.

These elements are combined by the speaker to form a communication. The combination will be determined in the main by the speaker's control of the diverse features of the language. On the one hand a child's utterances may be brief and often elliptical yet readily comprehended, while on the other hand a pedant may so expand his structures with co-ordination and subordination processes that his sentences, although well-formed, are opaque to comprehension. Thus well-formed¹ sentences of a minority pattern may be more opaque to comprehension than ill-formed sentences of a favourite pattern.

¹ The items in the sentence will exhibit not only the proper concordial features and syntactical relationships but will also be properly related to one another collocationally; cf., R.H. Robins, General Linguistics, pp. 67-74.

The main features of complexity in Amharic have already been indicated in chapter one above. Word structure, sentence length and sentence structure must now be considered in more detail.

a. Word structure In Amharic we are concerned with a synthetic language in which extension of the meaning of a root may be effected through a modification of the vocalisation scheme of the root (fällägä, "to seek", fälleg, "seek!", fällagi, "a seeker"), or by affixes (yäfällägä, "he who sought", säläfällägä, "because he sought") or by both methods. It is convenient to examine separately the structures of verbs, nominal forms and verbal nouns.

The structure of the verbal system remains the clearest evidence of the Semitic origin of the language. The root of a verb may consist of more than three radicals but most frequently of three radicals or of only two radicals which may be shown to be derived from original three-radical verbs. This reduction is usually to be traced to the dissolution of the laryngals which may be preserved in a nominal form of the root:

ጻፈ: , "to write", መጽሐፍ: , "a book", ጻሓፊ: , "a scribe".

The dissolution of the laryngals has also resulted in the appearance of homophones which may be traced¹ to roots employing different laryngals: መሐረ: , "to have pity", (መሐረት: , "pity"), መሀረ: , "to teach", (ትምህርት: , "education"), both become, in Amharic, ማረ:².

¹ R. Cowley discusses homophones and problems of Amharic spelling in "The standardisation of Amharic spelling", JES, V,2, pp.1-8.

² cf. ማረ: "to pity", ተማረ: "to be pitied" or "to learn".

The tense system is notable for the use of auxiliary verbs and while ነበረ: and ሆኖ: have retained their status as independent words the verb አለ: is incorporated into the structure of the main verb: ትወስዳለችሁ: , "you (pl) will take". But internally the structure may also be modified by the infix preposition, infix -ላ - in general indicating an action to the advantage of, and infix -ብ - action to the disadvantage of (pejorative) a person:

ፈረደለኝ: "he gave judgment in my favour",

ፈረደበኝ: "he found him guilty".

Basic verbal structure may be extended by the use of passive or causative prefixes ተ-: ተገ- : አ- : አሰ- : and by re-duplication of the medial radical: ሰጠረ: , "to smash", or of two radicals: አጠለጠለ: , "to shine, flash", and to such complexity may be added the prefixed subordinating conjunctions:

ጠዘህ : ጊዜ : መሣሪያው : ጠመሣሪያው : ወታደር : ጠወታደሩ :

ሲመዛዘን : ጦርነቱ : የበረታ : ሆነ ::

"Now, as weapon was measured against weapon, and warrior against warrior the battle became more fierce"¹.

And lastly in this brief survey of the affixes to the verb mention must be made of the pronominal suffixes, indicating number, person and gender for direct or indirect object and for the subject.

¹ Yä-Ityopya tarik, Volume 3, p.53

The load of information appearing on a verbal form may, then, be very large, including the semantic indications of the root and of any extension to the root, indications of person, number, gender, tense, indications of the relationship of the verb to other items in the sentence and possible indications of an assimilated passive prefix. Thus considering the 22 main verbs appearing on page 53 of Yä-Ityopya tarik¹ we find five explicit occurrences of the passive prefix but a further four verbs are, in fact, passive, in each case a preceding affix leading to the assimilation of the passive prefix resulting in gemination of the radical following.

It is true that not all of the information load carried by a verbal form is necessarily new. Thus the subject of a verb may be expressed explicitly by a nominal or nominal phrase in the sentence and it is not uncommon to find the object, explicit in the sentence, re-iterated as a suffix in the verb:

ገራጅ ጥፋት : እንዲሁ ሲሆን : ጭፍ ድቻ : በቶሎ : እንሠተው : ወሰ ይቶ ::

"In order that Grañ should not be captured his warriors quickly lifted him up and carried him away"².

In this sentence both the direct object and the subject of the main verb are explicit in the sentence so that the load of new

¹ Volume 3. The page was selected at random.

² ibid.

information in the verb is significantly less than the total information load it carries.

In considering nominals and the complexities introduced by affixes the situation is confused by the rules governing the distribution of affixes in nominal phrases. Thus accusative -ን: may be suffixed to the first of a sequence of qualifiers as in

ይህችን: ሴት: ¹, "this woman", or it may be repeated: ቀሰለኛውን: ያም: ክርስቶፎሮስን: ², "the wounded Dom Christopher". Again the use of the suffixed co-ordinating conjunction -ና: together with -ም:, pleonastically suffixed to the following nominal form, illustrates the manner in which affixes may appear which do not seem to contribute to the information load: ፖርቱጊዞችና: ኢትዮጵያውያንም: , "both the Portuguese and the Ethiopians".

If the page already used in the analysis of verbal forms is used for an analysis of nominal forms it is found that the first twenty nominals or nominal clusters involve 43 words with which are to be associated 42 affixes, twenty of them prepositions. Examination of individual words shows that 15 are free of any affix, 16 carry only one affix each, ten have two affixes each and two have three affixes each.

But this is not a measure of the complexity of the structures for in addition to the semantic contents of the items their ordering may also be significant.

¹ All the examples on this page are taken from the same page of Yä-Ityopya tarik, p. 53 of volume 3.

² The suffix is almost invariably repeated where two nouns are in apposition.

If then we allow not only the 42 affixes but add also the semantic contents of the 43 words and the ordering factor in ፩ : ሺ ለ : ተርሾች : , "two thousand Turks", we find a total of 86 items of information for the 20 nominals or nominal clusters.

One additional point of complexity should, perhaps, be noted here, since, although not particularly common, it is an example of the structural and semantic niceties which may be expressed in Amharic. It involves the suffixing of the definite article to the personal pronoun:

ከነሱው : ጋር : , "with those very people"¹,
እኔው : ነኝ : , "I am the very one"².

Concerning this construction Cohen wrote:

"Pour une insistance plus grande, avec diverses nuances, on ajoute l'article"³.

There are two verbal nouns⁴, usually termed the infinitive and the relative. The infinitive carries the distinctive prefix መ-: and is negatived by the proclitic አለ-: አለመሄድ : , "not to go". It may be articular, መሄድ : , "his going", (and this usage is extended to the pronominal suffixes: መሄዳቸው : , "their going"),

¹ YG, p.46

² YG, p.57

³ TLA, p.135

⁴ Actually there are four, only two of which function grammatically both as nouns and as verbs. The other two are the agent and the instrument.

and may take the accusative suffix. It may, however function as a verb and may govern a direct object, being frequently encountered as the verb in a subordinate clause:

የሰው : ሐሳብና : የእግዚአብሔር : ፈቃድ : የሚገጣጠምበት : ቀን :
 ለሰው : ልጆች : ጉዳዩ : ገመፈጸው : በሰው :
 ሊገለጽ : ባለመቻሉ : እስከ : ዛሬ : ድረስ : ዛገየ ።

"Since He cannot reveal the day when man's hopes and God's will coincide before He has consummated it He has held back until today"¹.

This passage introduces, also, the complexity of the relative construction, in which the prefix የ-: is associated with the perfect and prefix የም-: with the simple imperfect form of the verb so that while conjugating as a verb it may function nominally. This duality leads to interesting complexities: ወደምሄድበትም : ታውቃለህ ፣, "you know where I am going"². Here the relative construction የምሄድ: is preceded by the preposition ወደ: (leading to assimilation of the semi-vowel) and followed by three further affixes, to give a total of ten items of information.

One aspect of the problem of the comprehension of Amharic is seen to be the synthetic structure of the words: nouns, verbs and verbal nouns.

¹ Sārto mānor, p.25

² John chapter 14, verse 4

b. Sentence length One of the factors which might be expected to influence comprehension is sentence length. We have seen in chapter two, above, that in Amharic novels of the twentieth century almost 80% of the sentences contain up to twenty words, leaving just over twenty percent with more than twenty words each. It must, of course, be remembered that these are Amharic words, exhibiting a high degree of synthesis and therefore equivalent to a very significantly larger number of words in an analytic language.

In discussing sentence length we have to consider how it is to be measured. The question of the boundaries of the sentence has been examined in chapter two and having once settled the sentence boundaries it might seem a simple matter simply to count the words within the boundaries. But that this might lead to misleading results follows from the discussion of synthesis in the section above. It is clearly objectionable to assign to the word ቤቱ፣ , "house", equal weight with a synthetic structure such as ስለምሄድ፣, "because I am going". But even a count of Amharic characters in a passage may be misleading as a measure of length since certain affixes may be concealed: thus ተናገረ፣ , "it was said" but አይናገርም፣ , "it is not said", where the negative prefix has led to the assimilation of the passive indicator.

This lack of precision in the apparently simple problem of measuring sentence length is the consequence of a synthetic word structure and a defective script. We might, perhaps, re-interpret sentence length in terms of information load but this concept is

already far removed from the central feature, length.

In order to examine the problem of measuring sentence length ten of the sentences used in the tests in chapters five and six, all with word counts between 30 and 40 words, were examined to see to what extent sentence length as measured by a simple word count could be correlated with the number of Amharic characters used in the sentence, and to determine the actual number of hidden affixes involved. The results are tabulated:

Sentence no.	No. of words	Amharic characters	Concealed affixes	Compensated no. characters
A1	32	126	4	130
C5	32	133	1	134
B5	32	142	1	143
B4	33	142	3	145
C4	33	148	2	150
B1	35	143	1	144
B6	37	145	2	147
A11	37	161	2	163
C3	37	180	4	184
C6	39	156	2	157

The table demonstrates firstly that there is no need to be concerned unduly with the hidden affixes. They account for approximately one percent of the sentence length and the

testing procedures employed here could not be expected to take such small differences into account.

However it would appear that as a measure of sentence length a simple word count could be misleading. Taking the three sentences which each have 37 words we note that B6 uses only 147 characters but C3 uses 184 characters, a difference of 37 characters, or 35 if the hidden affixes are neglected for this purpose. Over the 347 words of this sample the average word length is almost exactly 4 characters so that the difference between these two sentences is of the order of nine words. The difference in the numbers of characters in the two sentences is approximately 25% and this difference might well be large enough to conceal the influence on comprehension of sentence length as shown up in the testing.

As a consequence of this brief analysis it was decided that in section A of the testing, where particular attention is paid to the effect on comprehension of sentence length, both the number of words in each sentence and the total number of Amharic characters should be recorded and used as a basis for comparison of the results for the various sentences.

There is, of course, no agreed theory to explain the manner in which the brain takes up the information encoded in a written or spoken sentence and interprets it to the auditor. Thus we do not know how many of the items of information which may be identified

analytically are recognized by the brain as such. In his studies of the speed of understanding, Philip B. Gough assumed a rather conceptual theory of the brain's interpretation of language. He used 32 sentences and measured the verification times for various sentence types. The results appeared to suggest that sentence type was determinative in the verification process, but he adds:

a / "....the several sentence types vary in length, and while the most obvious potential effect of this variable was controlled by presenting the event only at the end of the sentence, still the differences in length correspond to the obtained differences in verification time. It is not obvious that length should influence verification time, for the length differences are, in a sense, superficial; each sentence, regardless of type, contained the same three items - actor, action and victim - and the "message" length was thus equal across sentences. Nevertheless the present results might, in the absence of relevant evidence, be attributed to differential lengths"¹.

The later study of Martin and Roberts² suggests very strongly that Gough's assumption, that the information load may be considered without due reference to the length of the structure which conveys it, was ill-founded. For our present purposes, therefore, the mechanical, rather than conceptual, measure of length is used.

¹ "Grammatical transformations and speed of understanding", JVLVB, 4(1965), pp.107-111.

² "Grammatical factors in sentence retention", JVLVB, 5(1966), pp.211-218.

c. Sentence structure In addition to the effect of word structure on comprehension, and that of sentence length, we have the further problem of sentence structure. This may be labelled as the most serious of the three aspects of the problem of comprehension, both as regards the inhibiting effect on comprehension of the complex structures of Amharic and as regards the difficulty of locating, isolating and quantifying that complexity.

There are two principal means of associating elements within the sentence, co-ordination and subordination, the former leading to endocentric, the latter to exocentric, structures. The complexity of the sentence arises, firstly, from the expansion of individual items by these processes, and, secondly, from the combination of these expansions to yield the total structure which is the sentence.

Leaving aside the elliptical sentence, we note that the Amharic sentence consists basically of two nuclei, the verb and the subject of the verb, the two being connected by concordial features. Not every sentence contains both nuclei, although Märse Hazän states the contrary:

በረፍተ : ነገር : ሁሉ : በሁለት : ነገሮች : የተቋቋመ : መሆኑን : ጠየቀ : አለብኝ ::
አኒርሱም : ባለቤትና : አንቀጽ : ናቸው ::

"We must recognize that every sentence has two parts. These are the subject and the predicate"¹.

¹ YSMH, p.159; His example ነበደ : ወደቤቱ : ሄደ :: , "Käbbädä went to his home", is still a good Amharic sentence without the "ባለቤት:", ነበደ : .

In addition to these two nuclei we may have the objects of the verb, direct and indirect, the latter usually being distinguished from the former by a preposition. Täklä-Maryam Fantaye writes:

እንደ፡ ሰም፡ (ተውሳጠ፡ ሰም፡) ያንቀዱ፡ ግብር፡ የተገለጸበት፡ እንደ፡ ሆነ፡
 (ያንቀዱ፡ ሠራ፡ ያረፈበት፡ እንደ፡ ሆነ፡) ቀጥተኛ፡ ተሰቢ፡ ተብሎ፡ ይጠራል፤
 ነገር፡ ግን፡ ግንድ፡ ሰም፡ ላይ፡ ያንቀዱ፡ ግብር፡ ሳይገለጽበት፡ በመስተዋደድ፡
 የተገዛ፡ እንደ፡ ሆነ፡ የመስተዋደድ፡ ተገኝ፡ ተብሎ፡ ይጠራል።

"If a noun or pronoun indicates the object upon which the verb effects its action it is called the direct object.

However, if the action of the verb is not directed upon that object, but the noun is governed by a preposition then it is termed the መስተዋደድ፡ ተገኝ፡ , "Governed-of-the-preposition"¹.

In the sentence we will find varying degrees of complexity determined by the number of items present and the extent to which those items have been expanded and modified. In the simple sentence we will have one or more of the basic items present. In the compound sentence these items are expanded by modifiers. In the complex sentence one or more expansions have attained the status of clause.

The complexity of a sentence may be measured in terms of the number or nature of the grammatical entities which occur in it. Its opacity, however, is best measured in terms of the auditor

¹ HTSS, p.14

response to it, a response which may be measured in various ways, each of which corresponds to a different interpretation of the basic concept of comprehension. Three approaches are developed here, firstly the examination of the extent to which the information conveyed by the sentence is perceived by the auditor, secondly an analysis of the ability of the auditor to project grammatical structure to follow an incomplete structure, and thirdly the auditor's ability to generate a given structure in his own language, as signalled by a corresponding structure in English.

Comprehension as retention of information

If the purpose of the sentence is to convey information then the opacity of the sentence may be measured in terms of the success of the auditor in perceiving and comprehending the information. Comprehension may be influenced by subjective and objective factors: the auditor's comfort, alertness and interest, the visibility or audibility of the text would be some pertinent factors. These are dealt with in more detail in chapter four, below.

The questioning technique was not intended to test any specific areas of the sentence structures; this would imply some measure of a priori assessment of the problem. The purpose was the less precise one of locating structures which appeared to present the auditors with perception problems so that they could then be analysed syntactically in an attempt to define the source of the difficulty.

Multiple-choice type questions have been employed by the College Entrance Examination Board in the United States of America and the function of these tests is defined as follows:

"Reading comprehension questions test what you are able to do with your knowledge of vocabulary, grammar and the like. They take the form of connected passages of about 100 to 150 words each, followed by a series of questions based on these passages. Some of these questions will be factual in nature and are designed to test your ability to extract the information given. Others may deal with the total meaning of the passage, or with a special point or detail essential to a full understanding of the author's point of view. A few questions may go beyond factual comprehension by asking for inferences concerning such matters as mood, atmosphere, the author's attitude and the feeling of the characters presented"¹.

This is, of course, a description of testing procedures used by various examining Boards. The questions used in the present study are restricted to those of the first type.

It has already been pointed out that a number of factors will influence comprehension as measured by the ability to perceive and to retain information. Amongst these factors is memory. The auditor must first perceive the information and then store it in his memory from which it will be more or less rapidly erased. But it

¹ A description of College Board Achievement Tests, published by the College Entrance Examination Board, Princeton, N.J., 1962, p.97.

is important that the testing should not be of memory only. To obviate this problem in comprehension testing of this type the authors of the Report state:

"When a passage is of such length that memory might become a factor the passage is repeated before the questions are asked"¹.

It remains true, however, that memory is involved in the recall of information. Fortunately the present indications are that the rate of forgetting is the same even where the syntactical complexities of the materials used are decisively different. E. M. Spencer examined the amount of information retained by students at various intervals after auditing a selected range of texts², and found no difference in the rates at which various types of material were forgotten. Thus, given that grammatical structure selectively determines the amount of information perceived, a constant decay rate will operate for all information sets.

There remains one further problem involved in the assumption that grammatical complexity can be measured in terms of perception and retention of information. Traditional teaching methods in Ethiopia have been directed towards reading but not towards comprehension. The Ethiopic syllabary has been learned by children through a process of chanting, hour after hour. But if at any point in the

¹ ibid., p. 81

² "The retention of orally presented materials", JEP, 32 (1941), pp.641-655

lesson the chanting is stopped and a character in isolation is presented to the children it is rarely recognized. As Gërma Amarä expressed it¹ the children will stare in amazement and assure us that they have never seen such a letter before.

But the process of learning with comprehension goes beyond the study of the syllabary for the first three books studied by the children are Mäl'əktä Hawaryat (The Acts of the Apostles), Wängel (The Gospel) and Dawit (Psalms). But these books are all read in Gə'əz with little or no attempt to translate into Amharic. Thus children complete their basic education having learned by heart the characters of the syllabary and having read at least three books but having been exposed throughout to the concept of reading without comprehension. Gërma Amarä states

"That Ethiopian children memorise with little understanding is now a well established fact"².

Fortunately these antiquated methods are now rapidly passing away, especially under the impetus of new methods devised by the Ministry of Education and the National Literacy Campaign. But most of the 165 subjects used for the present series of tests will have been subjected to the concept of learning without comprehension.

¹ "Memorisation in Ethiopian schools", JES, I, 1 (1963), pp. 27-31

² ibid., p.27

A further interesting sidelight on the problem of comprehension is provided by Ullendorff's experience¹ with an Ethiopian informant. The informant was able to read newspapers fluently, although he had received no formal education. However, he was quite unable to read the verbal paradigms presented to him. The definitive contribution of the context was essential before comprehension was possible. I have observed this even with children from the eighth grade (that is, children in the eighth year of their schooling) who, when reading, perceive the context, partly identify a word and then proceed to supply a semantically suited word, with a generally similar contour, which may then be followed, because of syntactical requirements, by two or more words for which there is no evidence whatever in the text. They will then take up the text again.

It is, therefore, recognized that the factors discussed here make the formulation of multiple-choice type questions on the factual contents of sentences, and the interpretation of the auditor-response to those questions difficult. Such results as are obtained can be tentative only. Some questions, to which the answers appeared obvious, attracted unexpectedly large numbers of incorrect responses. It is precisely these areas of anomalous response which are of significance. a/

¹ CA, pp.20-21

Comprehension as projection of grammatical structure

Although it is not possible directly to investigate comprehension in terms of the technical appreciation of grammatical structure yet it is possible to examine an auditor's recognition of the structure of a given sentence. This may be effected by presenting him with an incomplete structure which he is then required to complete.

Sentences may be divided into favourite and minority pattern classes¹. This division is effected simply on a statistical basis. Of course when we speak of a sentence type we do not refer to the individual lexical items which comprise a specific sentence but to the gross syntactical features of the sentence.

It is a common experience that in conversation we are frequently able to identify the conclusion of a sentence before it is enunciated, by projecting forward that part which has already been expressed. As a consequence some people will supply the conclusion to the sentence for the speaker, and others will initiate their response without waiting for the sentence to be concluded.

In the extended periods of Amharic, in which the verb almost invariably occupies sentence final position, it is often almost essential that the auditor should have some idea of the conclusion of the sentence before it is reached so that he might properly

¹ Robins, General linguistics, pp.232-4

interpret the immediate structure. Of course the conclusion posited, and the ending actually presented may differ in detail, but the detail will generally be unimportant.

As any sentence is generated the process is essentially linear, each item, in some measure, determining structure to follow. The signals of structure to follow will vary in precision, but in Amharic may include the interrogative pronoun, a subordinating particle, the subject of a verb, then held in suspense, the adversative አንዲት, and others. Where a sentence is of a favourite pattern, and its constituents not extensively modified, the markers might be expected to provide almost unambiguous pointers to the end structure. Where the structure is modified by subordinate clauses and extended by sequences of qualifiers it might be expected that the end structure would no longer be so apparent.

Amharic is particularly suited to the type of exercise which requires the completion of a sentence, since the verb in sentence final position is an almost invariable feature of the language. Where only the final word is missing the auditor is required only to provide the verb for the main clause. His ability to do this will depend on his comprehension of the sentence structure and of its semantic contents.

He is expected to provide a suitable conclusion, one which satisfies not only grammatical requirements, particularly concordial relationships, but also collocational requirements.

The break in the sentence, however, may not leave merely the last word omitted, but may be so designed that a sequence of words is omitted, the missing sequence being signalled by the final word of the incomplete structure. This may be an adjective, signalling a nominal to follow, a verbal form, perhaps preceded by a subordinating particle, or, less obtrusively, a particle such as the accusative suffix or passive prefix which determine the nature of the main verb required.

Comprehension as ability to generate a structure

The third approach to measuring comprehension is beset by many difficulties. It is assumed that a structure which is generated by a native speaker of a language only with difficulty is an essentially difficult structure. If a sentence is constructed in English and its equivalent in Amharic is of a known pattern then, provided that the subject of the test comprehends the structure of the English sentence, the correctness of his Amharic sentence is a measure of the difficulty of the structure of that sentence.

In the case of certain formalised sentence structures, particularly conditional sentences, it is not difficult to ensure that the type of sentence required in the translation is unmistakably identified. More frequently, however, an English sentence may quite correctly be rendered in a number of ways, some more elegant than others. Even in such cases, however, useful deductions may be drawn for, if a student of generally lower ability in Amharic

rejects a sentence structure favoured by students of generally higher ability (as indicated by some independent criterion), it is reasonable to label that structure as difficult. It may thus prove possible to construct a sentence hierarchy by examining translation patterns.

As has been indicated in passing, however, the interpretation of the results is still ambiguous, for failure of comprehension may arise in the English text or in the Amharic translation. Thus precisely the same type of test was used by A. Traill in an attempt to isolate aspects of complexity in the English language. In his tests¹ he constructed quite artificially nested dependencies and these were then presented to a Zulu student for translation into his own tongue, failure being interpreted as difficulty of the English text.

The interpretation of this type of test, will, therefore, be very tentative, but may be expected to give some indication of favourite and minority pattern sentences and possibly of a more general hierarchy of structural difficulty.

¹ "Concerning the diagnosis and remedying of lack of competence in a second language", Language Learning, XVIII, 4, Dec 1968, pp.253-8.

CHAPTER FOUR: COMPREHENSION TESTING

The selection of auditors; The selection of sentences;
The selection of testing procedures: control of parameters,
test administration, test marking; Testing comprehension
through translation.

CHAPTER FOUR: COMPREHENSION TESTING

We have seen that complexity may be measured in terms of auditor comprehension and that comprehension may be indicated in three ways: in perception of information, in projection of grammatical structure and in the ability to generate a given structure in the context of translation. In testing this third concept use was made of the examination scripts of Ethiopian students taking the General Certificate of Education Ordinary Level examination in Amharic set by the University of London. There was thus no control, for our purposes, either of the sentence structures selected or of the students being tested. In testing the first two concepts of comprehension, however, it was possible to control sentence selection, student participation and testing procedures. In this chapter we shall consider the principles underlying the testing and the interpretation of the test results for all three concepts of comprehension.

The effectiveness of the experimental part of the study is clearly dependent on the control exercised over the various factors involved. These factors may conveniently be divided into the selection of auditors, selection of sentences and the testing procedures. We will consider them in this order since the type of auditor will in some measure determine the semantic content of the sentences but the actual sentences selected will also be influenced by the features towards which the testing procedures are directed.

The selection of auditors

Consideration of statistical significance in tests of comprehension makes it apparent that the tests would need to be carried out on groups of test subjects rather than on individuals. Since it might well prove desirable to compare the results obtained with one group with those obtained with another and independent group, and since both visual and oral presentation of the test material was envisaged a total of four groups was required.

Since all four groups would be required to audit¹ the same sentences all participants would need to share similar interests so that the semantic contents of the test sentences could fall within the interests of all. Again some common measure of the participants' ability in Amharic was required so that matched groups could be constructed and the performances of the groups meaningfully compared.

These conditions and requirements are met by students, provided that they come from generally the same background, socially, as one another and have similar educational standing, with a Government educational test to indicate ability in Amharic.

¹ The noun auditor and the verb to audit are used in this thesis in the sense in which they are used in accountancy, "to examine", and not in that sense which would restrict auditing to audible procedures; we thus include both listening to and reading a sentence in the concept of auditing.

Two schools were selected to provide test subjects, both in Addis Ababa, one a boys' school and the other a girls' school. Two groups were selected from each school on cluster sampling principles¹. Children in the ninth grade were selected since they would have taken the Ethiopian Ministry of Education Grade Eight Amharic examination. Marks obtained in this examination could be used in constructing matched groups for comparison purposes. The students from the two schools were divided into a total of four groups, two in each school, the division within the school being made arbitrarily on the basis of the first names of the children, i.e. an alphabetical sub-grouping was adopted.

The two schools selected were the General Wingate School and the Girls' Christian Academy; both are boarding schools and both are situated in quiet suburbs of the capital. General Wingate School is much the larger of the two schools, with several divisions to its ninth grade. Thirty two girls and 36 boys were to have taken part in the tests but some of the girls failed to arrive for the testing in time and had to be left out.

¹ cf. Robert Plutchik, Foundations of experimental research, New York, 1968, p.76. Although cluster sampling is the foundation principle involved in the selection of students for these tests, systematic sampling was later employed in setting up sub-groups on the basis of their ability in Amharic.

In the testing Group W from the girls' school read Set A of the sentences and so did Group Y from the boys' school. Group X from the girls' school and Group Z from the boys' school listened to them from a tape recording. The total number of boys participating was larger than the total number of girls and the boys were generally of a higher ability in Amharic. This was due to the fact that General Wingate School is able to select the most able students to fill its vacancies. These discrepancies between the groups, however, were not important since it was the relative difficulties of the sentences which were being examined, not the relative abilities of the auditors.

The selection of sentences

a / A number of criteria were set up to give a basis for the selection of sentences. In the first place was the need to keep the subject matter of the sentences within the general range of interests of the students to be tested. Clearly a student who found the subject matter of a sentence irrelevant or unfamiliar might respond to questions inaccurately even though the sentence structure might be notably transparent.

Subject matter was selected somewhat arbitrarily, on the basis of personal acquaintance with student interests. During almost a year in Debre Birhan I enjoyed frequent contact with students at the Teacher Training College there, and for 18 months I was Headmaster of a boys' boarding school in Kambatta. For some 4 years I was in

a / charge of the Girls' Christian Academy property and was on the Board of Grace Bible College, Jimma for three years. This continuing contact with school-children and students provided a reasonable basis for determining the range of their interests although there remains an arbitrary element in the selection of subjects believed to be relevant. Although it is not felt necessary to justify the subject matter of the sentences selected perhaps it should be stated that Ethiopian students show a much greater interest in domestic and international politics than do English children.

With Africa Hall situated in Addis Ababa and also the headquarters of the Organization of African Unity young people are interested in the activities of the United Nations and particularly in African participation in them. Newspapers are read with some care, but apart from this few children who have reached the eighth grade or beyond read Amharic literature in anything approaching the extent to which English children read English literature. More attention is paid by them to English literature, probably because English is increasingly the language of education in the higher school grades.

Thus attention was directed towards the Amharic newspaper as representing that type of material and that style of presentation with which the students might be expected to be familiar. It was decided to make use of the daily newspaper አዲስ ዘመን, "New Age" as the source for the test sentences. This newspaper was studied

for more than two years and sentences dealing with suitable subjects noted for possible use.

n/ The first of the criteria used in selecting sentences was, then, subject matter. The second criterion was sentence length. It was felt that perhaps 50 or 60 sentences should be accumulated with sentence lengths extending from about twenty words to more than sixty words. While it was not difficult to find sentences of suitable lengths the majority had to be rejected on fairly elementary grounds: too many neologisms, subject matter not relevant, reasonable suspicion that the matter was translation material or that the author was one to whom Amharic was an acquired language. There was even a small proportion of grammatically ill-formed sentences; here the most usual feature was the pendent nominative and this is not surprising in view of the lengths of some of the sentences examined.

Thirdly was the need to select as wide a range of sentence types as possible. One possible means of classifying sentence types in Amharic¹ is by a consideration of the verb of the main clause: active, passive, copula, the አለ, "to say", verb would be examples of principal divisions using this principle. But while this division might be helpful in the simple sentence the classification of complex sentences presents greater difficulty. For not merely is the number of subordinate clauses important but their ordering and nature must also be considered, if they are to be classified.

¹ See discussion above, chapter 2, pp. 51-53.

Where detailed clause structure is to be examined it becomes clear that, while it is not difficult to describe structures and sequences, it is less simple meaningfully to classify them. This problem is discussed in more detail in chapter two above. Here it may be stated simply that an attempt was made to select sentences of suitable subject matter and appropriate lengths, and with varying internal structures.

The following table indicates the distribution of sentence lengths amongst the sentences selected.

Sentence length (no. of words)	Details of sentences falling within this range of length	Total
21-30	23;B11; 26;C8; 27,C13	3
31-40	32;A1,B5,C5; 33:B4,C4,C10; 35:B1,C1; 37: A11,B6,C3,C6; 40:A9,A10	14
41-50	41:B2,C7; 42:C2,C12; 43:B7,C11; 44:B9,B12; 45:A2,B3; 47:B10; 50:B13,C9	13
51-60	52:B8; 55:A4; 58:A5,A6	4
60+	66:A3, 76:A7; 109:A8	3
		37

It will be noted that sentences of equal length occur within a single sub-group of the sentences. Thus both C4 and C10 contain 33 words, but examination of the structures of the two sentences at once indicates their total dissimilarity, the one to the other. Sentence C4 consists of a single subordinated clause preceding the main clause. Sentence C10, however, displays two gerunds modifying a relative clause, which is itself included in an infinitive¹ clause, in its turn subordinated to the main clause.

Since the complexity of a sentence will depend not only on its length, but also on its clause structure, sentence selection took into account both factors, and this explains the appearance of several sentences, within a single sub-group of sentences, all with similar sentence lengths.

¹ It is interesting to note the way in which the infinitive functions in an environment parallel to that of a subordinated finite verb:

ወደ፡ቤተ፡ሰላሄደ፡ , "...since he went to the house",
 ወደ፡ቤት፡በመሄድ፡ , "... since he went to the house",
 and it is under these circumstances that the infinitive functions most clearly as a verbal form.

The selection of testing procedures

The aims of the experimental section of the study were as follows:

1. To determine the effect of sentence length and sentence structure on comprehension
2. To attempt to identify constructions which tend to lower sentence comprehension
3. To observe any difference in comprehension between reading and listening
4. To observe the effectiveness of markers in signalling grammatical structure to follow
5. To investigate auditor reaction to sentences employing passive verbs
6. To examine the principles underlying the employment of simple and compound verbal forms

The design of the experimental procedures was governed by the following principles¹:

1. Control of parameters is important A very large number of subsidiary factors could seriously influence an auditor's comprehension: the legibility or audibility of the sentence, the measure of co-operation offered by the subject, fatigue and so on. Any one of these factors might become an intrusive variable

¹ See R. Plutchik, Foundations of experimental research, pp.27-29

which could introduce bias into the test results so that control was exercised where possible.

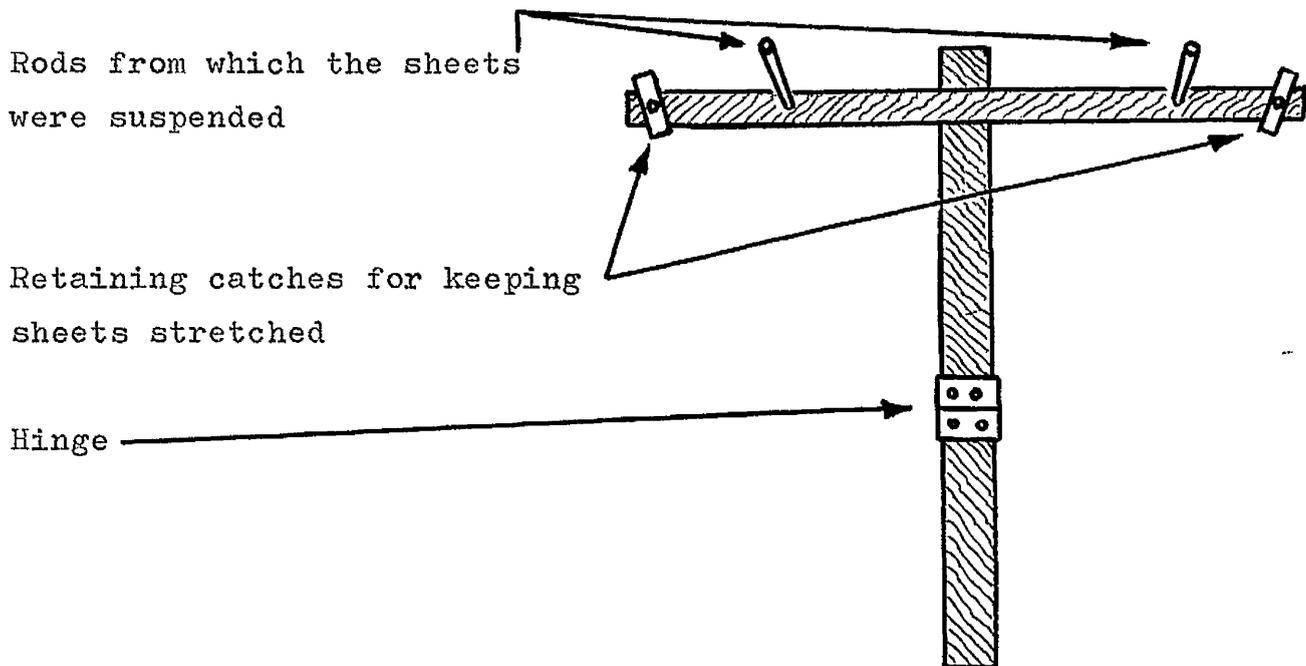
Firstly, then, the time allotted to auditing was controlled. In the case of those who listened to the tapes the procedure was to play the taped sentence twice and then to allow the auditors to record their responses. The written sentences were displayed for varying lengths of time, determined by the length of time taken to read the sentence aloud, twice. It is true that for English this would be quite unsatisfactory since speed of reading is of the order of three to four times the speed of listening with comprehension to the same material (500 - 700 words per minute as compared with 150-200 words per minute)¹. But it is very unusual indeed to find an Ethiopian below the level of the undergraduate who can read Amharic without forming the words, a process indicated by visible lip and tongue movement.

Of course this process would mean that the better student might be able to read the sentence through more than twice, the less able student only once, completely. But since inter-group comparisons were made only with matched groups this problem was not serious.

¹ J.B. Carroll, Language and thought, pp. 61-65. It would be useful to have experimental evidence relating speed of reading and speed of listening with comprehension for Amharic.

Since it is by no means easy to read type-written Amharic, unless the reader is familiar with the type-face, the sentences were hand-written on large sheets of heavy-weight paper. One sentence was written on each sheet which was then displayed on a specially prepared framework. Each sheet was approximately two feet wide by three feet deep and the lettering was two inches high, clearly visible from the fifth row of desks in the rooms used for testing. The paper was white, the lettering black.

Sketch of framework used in
displaying the test sentences



The recording was made by Ato Mäsfən Täsfaye. A previous attempt using a different speaker was unsuccessful as his voice had insufficient fullness to it and word endings tended to be inaudible. Before the final recording was made we went over each sentence together to ensure that the general structure was appreciated, each word recognized and the intonation, especially of the encased clauses, correct. Each sentence was given a number and this number appeared on the charts and was announced before the sentence was read. To facilitate the location of the sentences the number was also marked on the tape at the commencement of the sentence.

We have seen that to ensure a fairly homogeneous selection of auditors they were chosen from ninth grade students. The abilities of individual students were measured by their performance at the Ministry of Education's eighth grade examination in Amharic; they would all have taken the examination in the same year thus obviating the problem of changing standards from year to year.

It was felt important that the maximum of co-operation should be obtained from the students. The principles and purposes of the tests were clearly explained to the participants and the measure of involvement of the University of London made plain. To alleviate the fears of some students that "failure" in the tests might in some way be communicated, to their disadvantage, to the Ministry of Education the system adopted to ensure complete anonymity of all participants was explained. And finally, to encourage a measure

of competition and to foster a spirit of rivalry each of the two major groups of students was told of the existence of the other group. It may be stated here that all students taking part in the tests co-operated fully. Particular thanks is due to the Principals of the two schools for their ready co-operation.

2. Test administration must be uncomplicated Instructions to the students being tested were kept to the minimum¹ but they were repeated until all participants signified their understanding of them. Instructions were given in Amharic but were also written in English at the top of the test papers provided.

In all the tests the responses were recorded on prepared forms on which the students had only to write their code numbers, the date and the type of test, audio or visual. The forms were laid out on the desks before the students entered. A card was also provided with a code number written on it. The student simply added his own name and age to this card which was then the only link connecting him with his test paper.

The students sat at individual desks, to obviate copying. The display frame could be clearly seen from any part of the room. The sentence number displayed on the sheet or preceding the taped sentence co-incided with the number on the answer sheet in front of the student. In visual tests the appropriate sheet was placed on the frame for the pre-determined length of time and then removed.

¹ cf. David A. Payne, The specification and measurement of learning outcomes, pp. 40-42

The next sentence was not displayed until all were ready to proceed. Thus, as suggested by Payne, the students were allowed sufficient time to complete their answers although time allowed for the auditing of the sentences was controlled. In some instances a student found himself unable to provide any answer to the question and he was simply instructed to leave a blank. It was made clear that it was anticipated that it would not always be possible for all students to provide a response and they were encouraged to supply a blank rather than to make a guess. No difficulties were experienced in carrying out the procedures described here.

3. Test marking should be unambiguous This is, of course, a counsel of perfection. We are here dealing with a language and not with a scientific abstraction. In contrast to many tests involving comprehension, where the sentences are artificially constructed, the sentences used here were selected from independent texts.

By contrast we may consider Philip B. Gough's approach in which active and passive, affirmative and negative forms of the kernel sentence "The boy hit the girl" were paired with pictures which illustrated the actions of the sentences. Time taken for subjects to verify the correspondence of sentence and picture were then measured¹. Even in such brief sentences it was later shown

¹"Grammatical transformations and speed of understanding", JVLVB, 4 (1965), pp.107-111

that the factor of sentence length had not been controlled, but more serious must be the criticism that all that can be deduced from this type of experiment is that for these elementary structures one type of sentence appears to be less quickly comprehended than another. In the context of an extended sentence completely different factors might produce contrasting results.

It must at once be conceded, however, that where genuine and not contrived grammatical structures are used an important measure of control is lost and the conclusions, while perhaps valid over a wider range of structures, must be correspondingly more tentative. In these tests, then, precision has consciously been allowed to take second place to the need for involvement with living language.

Three tests fall to be considered: answering questions on factual content, supplying the main verb and supplying a closing phrase. We shall consider these three tests individually.

Set A: Answering questions on factual content. In this set of eleven sentences we have a representative range of grammatical structures which convey information concerning which questions of the multiple choice type could be formulated. The questions were prepared in the form of duplicated booklets, with one page for each sentence. The auditor had only a limited time to hear or read the sentence but virtually unlimited time to complete his answer sheet. He had only to place a tick by the side of the correct answer on the sheet in front of him.

Obviously there is more information likely to be found in a long sentence than in a short sentence so that in most cases there were three questions, in a few only two questions to a sentence. In comparing responses to the different sentences the total errors recorded in the responses to two questions were simply scaled up by proportion to what might have been expected had there been three questions. Thus 12 errors from two questions would proportionately represent 18 errors from three questions.

In this type of test the significant results are the incorrect responses of the auditors, and the significance lies not only in the number of incorrect responses but also in the nature of those responses. Thus in tabulating the results of the first set of tests the nature of the incorrect response is indicated: if the correct response should have been (a) then the tables show how many and which students responded with answers (b) or (c).

Deductive processes then follow. The incorrect responses are examined in an attempt to determine why they were made. In some instances there is a possibility that the formation of the three alternative responses made one of them significantly different in structure from the others and therefore obtrusive. Thus response (c) to question 3 on sentence A4 is (both in English and Amharic) markedly longer than the other two responses and 8 auditors selected this clearly incorrect response¹.

¹ See below, p. 138.

Again in two cases it was clear that the information asked for and contained in the sentence was a matter of common knowledge and this was revealed in the absence of any incorrect responses to the question. Thus the deductive process involved the scrutiny of all results, both instances in which there was a high number of incorrect responses and those involving a negligible number of incorrect responses. Only after this was any attempt made to relate the numbers of errors recorded to specific features of the sentences.

It was not expected that this part of the testing could do more than to suggest the existence of a relationship between gross syntactical features and comprehension or to suggest the contrary. The graph showing the relationship between sentence length and number of errors, for example, suggests that increasing the length of a sentence may decrease its transparency but that a longer sentence is not necessarily more opaque than a shorter one.

Set B: Supplying the verb. Here the test procedure was in essence the same as that used in the preceding section except that here the student had to write down the final verb of the incomplete sentence presented to him. He was provided with a single duplicated sheet of paper on which he entered his own code number, the date and the type of test, audio or visual, and then entered the verb against the sentence number already listed for him. Here a number of factors were being examined and in addition to the distribution

of the acceptable verbal forms an analysis was made of the incorrect forms in an attempt to determine the features of the sentence which influenced these incorrect responses. The long sentence encourages the pendent nominative and other forms of anacoluthon are to be expected. Breakdown of concord where the subject is held in suspense for an extended sequence, or where a pseudo-subject is in proximity to the main verb, was also examined.

It was also anticipated that an analysis of the numbers of simple and of compound verbal forms offered, when compared with those appearing in the original sentences, might indicate the basis on which the one is selected in preference to the other.

Set C: Completing the phrase. The final group of sentences, a total of thirteen, was selected to examine the effectiveness of various markers in signalling phrase structure to follow. Breaks in the sentences were made at points following selected markers and the ability of the student to complete the missing phrase investigated. Here both the main verb and the preceding structure were analysed, the experimental procedure being in all essentials as for the preceding two sections.

To avoid boredom each group listened to some sentences and read others. Between tests a five minute pause was permitted as a rest period.

Testing comprehension through translation

This final section of testing may be viewed as supplementary to the more controlled and more extensive tests described above. As we have seen it was not possible here to control the type of sentences to be generated nor to select the students involved in the testing. However it was felt that, since it was possible to obtain access to materials written by Ethiopians in the context of translation, materials which had already been marked. (thus providing an objective measure of the success of the students in generating the required structures), that some examination of these materials should be attempted.

When the examination scripts were examined it at once became clear that only in the question involving the translation of comparatively limited sentences could the student response be adequately and meaningfully analysed. For in the questions which involved the translation of extended texts there was no regular one-to-one correspondence between the sentences of the original and the sentences of the translation.

The first step taken was to examine the system of marking adopted to ensure that sentence difficulty was meaningfully differentiated by the overall distribution of marks. Scripts were divided into two groups and it was found that in each group the marking indicated the same general order of difficulty amongst the sentences.

Having established both that an order of difficulty was indicated by the marking and that the system of marking was meaningful the sentences in the original English and the translations offered were examined in an attempt to discern areas of difficulty associated with them. These included the difficulty of the original sentence, the information load carried by the sentence, sentence length and, in an extended consideration of Yngve's concept of depth of embedding, structural complexity of the Amharic sentence assumed to be required by the examiner.

Note It will be observed that throughout this section on the principles of testing of comprehension it is recognized that the selection of spontaneously generated extended structures as the basis for the research limits experimental control and the precision of the possible results. This limitation is acceptable since our concern is not with an artificial abstraction but with Amharic in that rich diversity which characterises it¹.

¹ cf. E. Ullendorff, The challenge of Amharic, p.15:

"A properly controlled investigation into the optimum (i.e. to the native speaker of average intelligence) length and structure of Amharic periods is an important desideratum". The present study might be seen as an introduction to such an investigation.

CHAPTER FIVE: COMPREHENSION AS RETENTION OF INFORMATION

Summary of results; The sentences: Amharic, English translation, discussion; Synthesis of results: validity of results; Comprehension related to sentence length, to syntactic structure, to mode of auditing, to information load

CHAPTER FIVE: COMPREHENSION AS RETENTION OF INFORMATION

In this chapter the results are discussed of the attempt to measure the extent to which sentence type, sentence structure and other factors influence the auditor's ability to comprehend and to retain the information conveyed by the sentence.

The eleven sentences may be divided, in the first instance, into three groups. In the first group the main verb is an active form, in the second group a passive form and in the third group we have existence verbs. Within each group sentence types and structures again vary, with particular attention paid to the occurrence of the suspended subject and subordination processes.

The questions deal only with the factual contents of the sentences. Ability to respond to the questions depends on the ability both to perceive the information in the first instance, and then to retain that information. As we have already seen in chapter four, above, four groups of students were involved in the testing, two groups READING the sentences from large wall charts and two groups LISTENING to them from a tape recording.

A summary of the total numbers of errors recorded in connection with the testing is given before these results are discussed.

The complete test results, however, appear in the appendix. Reference to the appendix, for example, shows that for group W the student W⁴ gave the incorrect response (b) to question 1 on sentence A2, and failed to give any reply to question 2 on the same sentence. Again, considering the summary of results, it will be noted that for reading group Y there were 4 incorrect responses to question three on sentence A2.

After the summary of the test results the eleven Amharic sentences are given. They are set out so as to indicate their general structures, and are followed by rather literal translations. The translation is then followed by the questions set. These are given in English translation only, and the multiple choice responses also appear in English only. For each sentence these matters are then followed by a brief discussion of the test results as they concern the specific sentence.

At the close of the chapter the results of the testing, as they reflect problems of comprehension, are discussed with reference to the whole range of sentences. Attention is given to such factors as sentence length, syntactic structure and mode of auditing.

Summary of results

Sentence no:	A1	A2	A3	A4	A5	A6
Question no:	1 2	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
Reading group W	- -	1 1 2	2 3 2	- - 1	- 4 1	- 3 -
Reading group Y	- -	1 2 4	- 1 -	1 - 2	1 3 1	1 1 1
Listening group X	4 3	2 4 4	5 2 6	2 - 2	3 1 7	1 2 1
Listening group Z	1 2	2 1 4	1 4 1	- - 4	7 2 6	- 4 -
Total errors:						
Reading gps(24 students)	-	11	8	4	10	6
Listening gps(32 students)	10	17	19	8	26	8
Overall total	10	28	27	12	36	14

Sentence no:	A7	A8	A9	A10	A11
Question no:	1 2 3	1 2 3	1 2 3	1 2	1 2 3
Reading group W	- 3 3	2 1 6	- - 1	1 2	- 5 1
Reading group Y	- 6 2	4 6 5	- 1 -	- -	- 5 3
Listening group X	- 4 4	3 5 7	- 1 1	5 5	1 6 4
Listening group Z	- 3 2	5 6 3	- - 2	- 7	- 6 -
Total errors:					
Reading gps(24 students)	14	24	2	3	14
Listening gps(32 students)	13	29	4	17	17
Overall total	27	53	6	20	31

A1 (continued)

Questions

1. How many nations sit on the Security Council?
 - a. Ten
 - b. Eleven
 - c. Twelve

2. When is the expected next meeting of the Security Council?
 - a. Thursday
 - b. Friday
 - c. Saturday

A1 (continued)

The two questions set on this sentence were directed simply towards information absorption. The required facts were set out in the sentence without ambiguity. There were no numbers given apart from the one asked for, and no day of the week mentioned except for the one asked for. Although there is a measure of sentence complexity, provided by the adverbial time clause which is included in the causal clause:

ይህንን ጥያቄ ጥያቄ ጥያቄ ሲቀረጠለት ፤

ከአርጅቱ ጠቅላላ ጉባኤ በፊት ጥጽደቅ የሚገባው ሲሆን ፤ ...

"When this kind of question comes to it

since it must approve (it) before the meeting of the

Organization's full Assembly..."

yet the response to the questions did not require comprehension of this structure.

However, although there were no errors in the responses of the READING groups, five of the LISTENING group responded with the obvious guess (c), "twelve", to the question regarding the number of members of the Security Council. Moreover there were five incorrect responses to the second question, also all from listeners. This can scarcely be attributed to inaudibility: hamus, arb and kedame do not sound alike. It is possible that the complex structure at the beginning of the sentence inhibited comprehension even in the relatively less complex sentence conclusion.

A2 (continued)

Questions

1. Where did H.E. Ato Yohannæs go?
 - a. Alexandria
 - b. Geneva
 - c. Alexandria and Geneva

2. How often is the health conference held?
 - a. Annually
 - b. Monthly
 - c. Bi-annually

3. When did H.E. Ato Yohannæs return?
 - a. In the afternoon
 - b. At mid-day
 - c. In the morning

A2 (continued)

The time clause carries a heavy information load:

ጳጳጳጳ : ፩ : ቀን : ፲፱፻፶፭ : ዓ.ም. ከጠዋቱ : በ፪ : ሰዓት : ከ፴ : ደቂቅ : ላይ :

"Pagume 2nd day 1955 E.C.,

at two hours and thirty minutes in the morning", and the question dealing with the contents of this phrase drew more errors than either of the others, 14 errors as compared with 6 and 8 for questions one and two respectively. Of the fourteen incorrect answers to question three, five responded with (a), seven with (b) and there were two blanks.

The source of the answer to question two is the single word በዓመታዊው : , "at the annual"; seven of the eight incorrect responses to this question were of (c), and it may be assumed that these auditors missed the source word and then guessed that the unfamiliar form¹ በየሁለት:ዓመት: , "bi-annually", was the correct one. The word በዓመታዊው : occurs within the boundaries of the discontinuous morpheme በ- : ላይ : , and it is possible that, because of its complexity, even the re-inforcement of a second auditing of the structure was not sufficient to impress the semantic content of the word upon the memories of the seven students.

The incorrect responses to question one indicate that six auditors heard one or other of the place names but failed, surprisingly, to recall the associated place name.

¹ In Amharic the three alternatives for this question were:

በየዓመቱ : , "annually", በየወሩ : , "monthly", and በየሁለት:ዓመት: , "bi-annually".

A3 (continued)

Addis Zämän, Tahsas 8 1959 E.C.

Length of sentence: 66 words, 251 characters

Questions

1. Who is the leader of the committee?
 - a. The Emperor
 - b. The Crown Prince
 - c. Abba Mäzgäbä Sellassie Wäldä-Hawaryat

2. How many people were sent out by the committee?
 - a. One
 - b. Two
 - c. Three

3. What happened to the relics they discovered?
 - a. They were catalogued
 - b. They were bought by the Committee
 - c. They were sent to Addis Ababa

A3 (continued)

Although in the errors recorded in connection with this sentence there is a marked difference in the failure rates of readers and listeners (8 errors from the 24 readers and 19 from the 32 listeners) the disparity is not so great when the matched groups are considered. Here the readers registered 7 errors and the equal number of listeners registered 10 errors.

The errors are spread almost equally over the three questions, 8, 10 and 9 errors respectively.

Although only one auditor suggested that the committee was led by the Emperor seven gave the priest, Abba Mäzɡäbä-Sellassie, as the leader, apparently either failing to comprehend the adjectival phrase በሰርዓት፡ ክስጋ፡ ወራሽ፡ የሚመራው፡ , "that which is led by the Crown Prince", or else failing to retain the information.

Seven of the auditors believed that three investigators were sent out by the committee. It is possible that the confusion arose because of the priest's two compound names, Abba Mäzɡäbä-Sellassie Wäldä-Hawaryat, the pronominal suffix on ረዳታቸው፡ being then interpreted as a 3rd person plural instead of as a polite form.

The third question depended for its answer on the main verb of the sentence, but it is possible that the title of the extract, which uses the word ሰበሰበ፡ , "to gather", has confused some of the seven who answered (c) to this question.

A4 ቡና ፡ ሊሸጡ ፡ ሲሉ ፡ ተያዘባቸው ፡

ወርቅ ፡ ስገኙሁ ፡ ሙላት ፡ ፋንታሁን ፡ ንዋይ ፡ የተባሉ ፡ ሰዎች፤
 በቡና ፡ በርድ ፡ ያልተመረመረ ፡ ፩፻፳፮ ፡ ንግ ፡ ቡና ፡ ጭነው ፡ ለመሸጥ ፡
 ወደ ፡ አዲስ ፡ አበባ ፡ ሲሄዱ ፤
 በግሊስ ፡ አማካይነት ፡ ተይዘው፤
 የንግድ ፡ ፈቃድ ፡ የሌላቸውና ፡
 ያልተለቀመ ፡ ቡና ፡ ጭነው ፡ በመገኘታቸው፤
 ጅም ፡ በሐግ ፡ አስገባሪው ፡ በአምሳ ፡ አለቃ ፡ ብዙሃ ፡ ኃይሌ ፡ አማካይነት ፡
 ጅም ፡ አውራጃ ፡ ፍርድ ፡ ቤት ፡ ተገቡሰው፤
 እያንዳንዳቸው ፡ አንድ ፡ ሺህ ፡ ብር ፡ መቀጫ ፡ እንዲገፍሉ፤
 ባይገፍሉ ፡ ግን ፡ በሁለት ፡ ወር ፡ እሱራት ፡ እንዲቀጡ ፡
 ተፈርዶባቸዋል።

Coffee seized on the way to be sold

Wärq-Agäñähu Mulat and Fantahun Nəway, they who are called,
 to sell 120 sacks of coffee which had not been examined by the
 Coffee Board, having loaded (it),
 as they went to Addis Ababa
 having been seized by the intervention of the police,
 their not having a trading license and
 being found with a load of unprocessed coffee,
 (at) Jimma, by Security Officer Sergeant Bəzunäh Hayle,
 having been accused at the Jimma District Court,
 that each man should pay a fine of one thousand dollars,
 or, if they do not pay, that they be punished by two
 months' imprisonment,
 judgement has been passed upon them.

A4 (continued)

Addis Zämän, Miyazya 20 1958 E.C.

Length of sentence: 55 words, 209 characters

Questions:

1. Where were the men going when they were arrested?
 - a. Jimma
 - b. Dässe
 - c. Addis Ababa

2. If unable to pay the fine for how long were they to be imprisoned?
 - a. One month
 - b. Two months
 - c. Three months

3. What was said about their trading license?
 - a. They did not have one
 - b. They had failed to renew it
 - c. Although they had one they were wrong in trying to sell unexamined coffee

A4 (continued)

This sentence, although long, is essentially linear¹ in structure as the sequence of verbs indicates: ጭነው፡ ለመሸጥ፡, "having loaded, in order to sell", ሲሄዱ፡, "as they went", ተይዘው፡, "having been seized", ጭነው፡ በመገኘታቸው፡, "having loaded since they were found", ተከሰሰው፡, "having been accused". Here we do not have the problem of suspense; the subject, once generated, remains the subject of successive clauses until the main clause appears.

The questions set were of the same general type as those set for the other sentences. There were only 12 incorrect answers to the questions, none to the second question. Eight of the mistakes were related to question three, indicating a failure to perceive the information expressed in the infinitive clause:

የጓግድ ፡ ፈቃድ ፡ የሌላቸውና ፡ ያልተለቀሙ ፡ ቡና ፡ ጭነው ፡ በመገኘታቸው ፡

"their not having a trading license and being found with a load of unprocessed coffee".

The clause displays a complex structure, with two relative constructions and a simple gerund as additions to the infinitive and its subordinating prefix. It could well be that the semantic content was obscured by the syntactic complexity of the clause. Brief analysis of the information load of the clause suggests that

¹ The concept is discussed in more detail in chapter 6, pp. 265-269, below.

A4 (continued)

there are more than 20 items of information conveyed by the seven words. The constituent structures may be examined individually:

የንግድ ፈቃድ:	, "a trading license",	genitive; word order; semantic content of each word	4
የሌላቸውና:	, "their not having",	relative; number, person, tense, pronominal suffix, co-ordinating conjunc- tion, negative, semantic content	8
ያልተለቀመ:	, "that which was not processed",	relative, number, person, gender, tense, passive, negative, semantic content	8
ቱና:	, "coffee",	semantic content, word order	2
ሜናው:	, "they having loaded",	gerund, number, person, semantic content	4
በመገኘታቸው:	, "by their being found",	subordinating prefix, infinitive, (passive), pronominal suffix, semantic content	5

The question of the influence of information load on comprehension is discussed at greater length below, pp. 172-4.

A5 ያንድ ሸፊር ግፋት :

ቶጌ : ወልደ : ሚካኤል : የተባለ : የሕዝብ : ማመላለሻ : አውቶቡስ : ሸፊር ፤
 ከተፈቀደለት : በላይ : ትርፍ : ሰው : በመሳፈሩ :
 ትራፊክ : ለመቆጣጠር : የሰጠውን : ምልክት : ግሰ : በመሔዱ ፤
 ጨልጎ : ወረዳ : ፍርድ : ቤት : ቀርቦ ፤
 የመንጃ : ፈቃድ : ሲታይ ፤
 አዲስ : አበባ : ስጥነት : ወረዳ : ፍርድ : ቤት : ቀርቦ ፤
 ሦስት : ወር : ድረስ : መገቢያ : እንዳይሳዩ :
 የተሰጠውን : ትእዛዝ : ግሰ : ሲሳዩ : በመገኘቱ ፤
 ግፋቱን : በማጠቃለል ፤ ፪፯ : ብር : የቀቀጣ : መሆኑን :
 ከአውራጃው : ፖሊስ : ጽሕፈት : ቤት : በተገኘው : ዜና :
 ታውቋል ።

A bus driver's crime

Şege Wäldä-Mikael, a public transport bus driver,
 because he carried more passengers than permitted to him and
 because he ignored a sign from a traffic¹ policeman for inspection
 and went on,
 having attended the ሸጋላይያ district court,
 when his driving license was examined,
 having attended the number six district court in Addis Ababa,
 since he was found to have ignored the order not to drive for
 three months, and driving,
 combining his offences that he was fined 100 dollars,
 from information received from the Provincial police Secretariat
 it is known.

¹ ትራፊክ: is the word used for "traffic police", not (usually)
 for "traffic".

A5 (continued)

Addis Zämān, Gənbot 24 1958 E.C.

Length of sentence: 58 words, 208 characters

Questions

1. Of what was Ato Şəge accused?
 - a. Driving while his license was out of date
 - b. Carrying too many passengers
 - c. Failing to stop at traffic lights

2. What was his sentence?
 - a. A \$100 fine
 - b. One month's imprisonment
 - c. Three months' disqualification

3. Where was his case heard?
 - a. Ṫälleya district court
 - b. Number 6 district court, Addis Ababa
 - c. The Provincial court

A5 (continued)

Although the subject matter of this sentence is similar to that of A4, the structure of the sentence is not linear but cyclic. The cycles terminate in subordinated infinitive forms, each cycle being held in suspense until the main clause appears:

በመሰፈሩ፣ ... በመሆኑ፣ ... በመገኘቱ፣ ... በማጠቃለል፡....,

"and by his carrying" ... "by his going on" ... "by his being found" ... "by combining"...

It is noted, also, that, unlike sentence A4, the subjects of the clauses do not remain constant.

The errors in the answers to the questions are fairly evenly distributed amongst the three questions: 11, 10 and 15 errors respectively. This is three times the total of errors for sentence A4 which is of almost identical length (55 words and 209 characters, compared with 58 words and 208 characters for A5).

The complex hierarchical structure of this sentence is, perhaps, best reflected by the ten incorrect responses to question 2, which deals with the sentence passed. All ten had their attention drawn to the sentence passed earlier in Addis Ababa, responding with answer (c). The parallel structures of the relevant gerund clauses aggravate the difficulty:

ጤላይያ፡ ወረዳ፡ ፍርድ፡ ቤት፡ ቀርቦ፤

"having attended the ጥገላይያ district court",

አዲስ፡ አበባ፡ ስድስተኛ፡ ወረዳ፡ ፍርድ፡ ቤት፡ ቀርቦ፤

"having attended the Addis Ababa 6 district court".

A5 (continued)

It is this same inability to perceive the hierarchical structure of the sentence which has resulted in the fifteen incorrect responses to the third question. Here again the content of the included gerund clause has been taken as the content of the clause at the higher level of the hierarchy.

With the exception only of sentence A8, which contains almost twice as many words, this sentence has more subordinating particles than any other. It also attracted the largest number of errors, again with the exception only of A8.

A6 የፊደል ጽሑፍ ስያሜ ስም :

በተለይም : ይህ : ደህኑ : የጥቅም ጥቅም : ወር :
 የአዲስ አበባ : ከተማችን : እንዲታደግ : የምንጥርበትና :
 እርጅ : ቤቶች : እንዲታደጉ ፤ ሕንፃዎች : በልዩ : ልዩ : ቀለም : እንዲቀጡ ፤
 አኖሮች : ቀጥታውን : ይዘው : ተፈላጊ : ቀለም : የሚፈጸም ላቸው :
 የመንገድና : የሠፈር : ፊት : የሚከበርበት ፤
 የሕዝቡ : ንጽሕና : ከጤናነቱ : ጋር : የተሰተካከለ : እንዲሆን : ለማድረግና :
 ግርማዊ : ንጉሠ : ነገሥታችን :
 ከወደፊት : አገሮች : ጉባኝታቸውን : ፈጽመው :
 ወደ : ውጭ : ሀገራቸው : በመመለስ :
 የዘወድ : በዓል : የሚከበርበት : ወራት : ስለሆነ :
 ከዚህ : በላይ : የተጠቀሱትን : ሁሉ :
 በጥንቃቄ : የምንፈጽማቸው :
 መሆን : ይገባል ።

Tidying up

Specifically, this, of the present month of Tēkəmt,
 that our city of Addis Ababa should be beautified, we should be
 those who strive and,
 that old houses should be repaired, buildings be attractive with
 various paints
 fences straightened and provided with necessary paint,
 that which leads to the tidiness of street and district,
 so that the people's hygiene may equal their health and
 His Majesty our Emperor,
 having completed his tour of friendly countries,
 in returning to his beloved country,
 since it is the time of the celebration of the Coronation
 festival,

A6 (continued)

all that is mentioned above
we who fulfill them diligently we should be .

Addis Zämān, Təḳəmt 17 1956 E.C.

Length of sentence: 58 words, 257 characters

Questions

1. When was this article written?
 - a. Mäskäräm
 - b. Təḳəmt
 - c. Hədar

2. Where was the Emperor at that time?
 - a. Had just returned to Addis Ababa from his trip abroad
 - b. Was on a visit to various friendly countries
 - c. Was preparing for a trip abroad

3. Which public holiday was at hand?
 - a. Adua
 - b. The Emperor's Birthday
 - c. Coronation Day

A6 (continued)

The incorrect responses to this section are almost all associated with the second question, involving comprehension of the indication of time. In this particular sentence this requires adequate comprehension of the overall sentence structure. The specific time indication provided by the verbal forms in the clauses dealing with the Emperor's return is not decisive:

ጉብኝታቸው፡ ፈጽመው፡ ወደ፡ ውጭ፡ ሀገራቸው፡ በመመለሱ፡

"having completed his tour, by returning to his beloved country...".

The sentence gains its complexity principally from the use of the relative construction; there are seven of them (only sentence A8, with 109 words, has more), but of pivotal importance in comprehending the construction is የምንኖርበትና፡, in the second line, with which is to be associated የምንፈጽሞቸው፡, although the two forms are separated by a sequence of 45 words. As a consequence of this structure the two questions which required only the absorption of facts which were not deeply embedded drew only a random four errors. The one question which required a genuine perception of the overall sentence structure attracted ten mistakes.

A7 መሐይምናትን ለማጥፋት

በሐረር፡ በጠቅላይ፡ ግዛት፡ የሚለገገው፡ ማደ፡ የእርሻ፡ የጤና፡ ተማሪዎች፡
 በአካባቢያቸው፡ የሚገኙትን፡ ተግባራቸው፡ ፈጽሞ፡ የሚሆን፡ አገልግሎት፡ ሰጠው፤
 በትምህርትና፡ ሥነ፡ ጥበብ፡ ሚኒስቴር፡ ሥነ፡ ሥርዓት፡ መሠረት፡ በማስተማራቸው፤
 የብሔራዊ፡ ፊደል፡ ማህበር፡
 መሐይምናትን፡ በአገር፡ ለማጥፋት፡ በሚደረገው፡ ጥረት፡ ተማሪዎቹ፡ በመተባበር፤
 አማርኛ፡ ንግድ፡ ጽሑፍን፡ በማስተማር፤
 በግብርናና፡ በሌላውም፡ ሳይ፡ ሳይ፡ ጥያቄ፡ የሚተዳደረውን፡ ነዋሪ፡ ሕዝብ፡
 ችግሩን፡ ለማቃለል፡ በመሳሰሉት፤
 ለማስተማሪያ፡ እንዲሆናቸው፤
 የፊደል፡ ሠራዊት፡ ማህበር፡
 በአቶ፡ ማሞ፡ ወልደ፡ ሰንበት፡ የጠቅላይ፡ ግዛቱ፡ የሥራ፡ ክፍል፡ ጥናት፡ ዲሬክተር፡ አማካይነት፡
 756፡ ሳይ፡ ሳይ፡ የማስተማሪያ፡ መዳሕኔዎችና፡
 እንዲሁም፡ የጽሑፍ፡ መሣሪያ፡ ተስተካክለዋል።

To eliminate illiteracy

The students of the Alām Maya Agricultural College, Harar Province, having gathered some 200 children from their district, by teaching them along the lines laid down by the Ministry of Education and Fine Arts, the National Literacy Association's plan for the elimination of illiteracy from the country, since the students have joined in it, by teaching Amharic reading and writing ,

A7 (continued)

by setting themselves to lighten the burden of the ordinary people engaged in agriculture or other tasks, that they might be teaching aids for them, the National Literacy Campaign, through the Provincial Projects Director, Ato Mamo Wäldä-Sänbät, 756 assorted teaching books and similarly writing materials have been sent to them.

Addis Zämän, Tahsas 18 1956 E.C.

Length of sentence: 76 words, 319 characters

Questions

1. In which province is the Aläm Maya College?
 - a. Tigre
 - b. Šäwa
 - c. Harar
2. Who donated the literacy supplies?
 - a. The Governor of Harar Province
 - b. The Ministry of Education
 - c. The National Literacy Campaign
3. How many children were got together?
 - a. 200
 - b. 500
 - c. 756

A7 (continued)

There were no incorrect answers to question 1, which suggests that it is a matter of common knowledge that the Alĕm Maya College is in Harar. The students, however, had some difficulty in perceiving the information required for the response to question three. Eleven auditors responded 756, the number of books donated, to the question asking for the number of students gathered together. Again, no fewer than 16 failed to respond correctly to the question regarding the source of the literacy supplies.

Sentence structure, here, is in some features comparable with the cyclic structure of A5, making use of subordinated infinitives:

በጣሰተማራቸው፡ ... በመተባበር፡ ... በጣሰተማራ፡... በመካሄዳቸው፡...

"by their teaching"... "by joining together"... "by teaching"...

"by their setting out",

and, as previously, these clauses are not sequential, but each is held in suspense until the generation of the main clause.

The 27 errors from two questions may be taken as equivalent, on a proportionate basis, to 40 errors over three properly devised questions. This may then be compared with the 36 errors associated with the somewhat shorter sentence A5.

A8 የጤና ፡ ፍብቃት ፡ ጉባኤ ፡

« የሰብሰባው ፡ ዋና ፡ ዓላማ ፡ ምሥራቃዊ ፡ ሜዳቅሬታና ፡ ጉባኤ ፡ ተብሎ ፤
 ፪ኛ ፡ በአሁኑ ፡ ጊዜ ፡ የጤና ፡ ፍብቃት ፡ ድርጅት ፡ የሚገደባቸውንና ፡
 በዚህ ፡ ምክንያት ፡ ችግር ፡ የገጠማቸውን ፡ አገሮች ፡ ለመርዳት ፡ የሚቻሉትን ፡ ዘዴ ፤
 ፫ኛ ፡ ያለውንና ፡ የሚያስፈልገውን ፡ የጤና ፡ ፍብቃት ፡ ባጅቶ ፡
 በግንቦት ፡ ወር ፡ ፳ኛው ፡ ላይ ፡ ለሚደረገው ፡
 የዓለም ፡ ጤና ፡ ፍብቃት ፡ ጠቅላላ ፡ ጉባኤ ፡ ለማቅረብና ፡
 እንዲከናወኑ ፡ ለማድረግ ፡ ነው። » ብሎ ፡ በኋላ ፤
 « ወደ ፡ አሌግሳንደሪያ ፡ የሌሎች ፡ ምክንያት ፡
 ምን ፡ ምን ፡ እንደሆነ ፡ ሊገልጹ ልኝ ፡ ይፈቅዳሉ? »
 አሚላው ፡ ጥያቄ ፡ መልስ ፡ ሲሰጡ ፤
 « እንደሚታወቀው ፡ ሁሉ ፡ የዓለም ፡ የጤና ፡ ፍብቃት ፡ ድርጅት ፡
 በአምስት ፡ አህጉር ፡ የተከፋፈለ ፡ እንደመሆኑ ፡ መጠን ፡
 የኛው ፡ ክፍል ፡ በአሌግሳንደሪያ ፡ ላይ ፡ ንግግር ፡ ሲያደርግ ፡ ቆይቷል። »
 ብለው ፡ እንዳሰረዱ ፤
 « ወደ ፡ ፳ኛው ፡ ለመሌድ ፡ የቻሉበትን ፡ ምክንያት ፡ ምን ፡ ይሆን? »
 አሚላው ፡ ተከታታይ ፡ ጥያቄ ፡ እንዲህ ፡ ሲሉ ፡ መልሰዋል ፤
 « በአሌግሳንደሪያው ፡ ጉባኤ ፡ ላይ ፡ አብረው ፡ ለመከናወን ፡ አንዳንድ ፡ አገሮች ፡
 አግባብ ፡ ስለሌላቸው ፤
 የኛው ፡ አህጉር ፡ ጉባኤ ፡ ስሜት ፡ (ሀ) ፡ እና ፡ ስሜት ፡ (ለ) ፡ ተብሎ ፤
 በሁለት ፡ በመካከል ፡ ጉባኤው ፡ ተደርጓል። »

Health conference

The main purpose of the Conference, called the East-Mediterranean Conference, firstly (to find) what is at present lacking in the Health Organisation,

A8 (continued)

a way in which to help countries in difficulty because of this,
 secondly, the present and the required Health Organization budget,
 to that which will be held at Geneva in Genbot
 the plenary meeting of the Health Organization,
 to bring to it and
 it is to arrange that they discuss it", after saying,
 "And the reason for your going to Alexandria,
 are you willing to reveal to me?",
 to the question asking this as he gave answer:
 "As is well known the World Health Organization,
 as it is divided amongst five countries
 for some time our section has held its discussion at Alexandria",
 as he said in explanation,
 "Then how is it that you were able to go to Geneva?"
 to the supplementary question which asked this he replied thus:
 "Since some countries had no due reason to join in the discussions
 held at Alexandria
 our countries' Conference "Committee A" and "Committee B"
 being called
 by being divided into two the Conference was held".

Addis Zämän, Page 4 1955 E.C.

Length of sentence: 109 words, 452 characters

A8 (continued)

Questions

1. Where is the World Health Organisation's plenary session held?
 - a. Alexandria
 - b. Geneva
 - c. Aden

2. Into how many districts is the Organisation divided?
 - a. Five
 - b. Two
 - c. Eighteen

3. What was the title of the Conference?
 - a. The Alexandria Central Committee
 - b. Committee A and Committee B
 - c. Eastern Mediterranean Conference

A8 (continued)

This is the longest of the eleven sentences in this Set, and is an example of the extended sentence in direct speech. There are five distinct speech sequences in the sentence, each a complete sentence in itself, but each brought into included position by some form of the verb አለ፡ , "to say": ባለ፡ በኋላ፡ , "after saying", ለሚለው፡ ጥያቄ፡ , "to the question which asked", ብለው፡ እንዲሁ፡ , "having said as he explained" and ሲለ፡ መልስ፡ , "saying he replied". It is only after the close of the direct speech which follows this last phrase that it is possible to consider the period closed.

Although the sentence is long, the difficulty for the auditor lies predominantly in the total amount of information conveyed. Both listening and reading groups experienced somewhat similar degrees of difficulty. The errors were distributed fairly evenly amongst the questions: 14, 18 and 21 errors respectively. One student clearly despaired on seeing the length of the sentence and made no attempt to answer any of the questions!

The word አህጉረ፡, "countries", as used in the text, was employed as a marker in the second question. Even so, seven auditors were attracted to the division of the local conference into two groups, and gave alternative (b) as their answer.

A9 የዳግማዊ ስፍ ምኒልክ ሺኛ ዓመት መታሰቢያ

በሺ : ዓመት ፡ የሕይወት ፡ ዘመናቸው ፡ ውስጥ ፡
 በሸዋ ፡ ጓጉሥነትና ፡ በመላው ፡ የኢትዮጵያ ፡ ግዛት ፡ ጓጉሠ ፡ ነገሥቱን ፡
 ሟጸ ፡ ዓመት ፡ ሙሉ ፡ ለአገራቸው ፡ ስጋዳነት ፡
 ታላቅ ፡ እገልግሎት ፡ የፈጸሙት ፡ ዳግማዊ ፡ ስፍ ፡ ምኒልክ ፡
 በአድዋ ፡ ጦር ፡ ሜዳ ፡ ላይ ፡
 ከታላቁ ፡ የጦር ፡ አበጋዞቻቸው ፡ ጋር ፡
 የኢትዮጵያውያንን ፡ የዘር ፡ ጠላት ፡ ቅስጽዎ ፡ የሰበረ ፡
 ወረ ፡ ከሎኒያሊዝም ፡ ናቸው ።

Fiftieth anniversary of the death of Menelik II

In the 70 years of his life
 as King of Šäwa and as Emperor of the whole of Ethiopia,
 for 48 years for the unity of his country
 Emperor Menelik II who fulfilled a great task,
 on the battlefield of Adua,
 with his faithful generals,
 he who shattered the dignity of the enemies of the peoples of
 Ethiopia,
 he is the scourge of Colonialism.

Addis Zämäñ, Tahsas 3 1956 E.C.
 Length of sentence: 40 words, 152 characters

A9 (continued)

Questions

1. Of which province was Menelik King?
 - a. Tigre
 - b. Šäwa
 - c. Harar

2. For how many years did he rule?
 - a. 30 years
 - b. 48 years
 - c. 70 years

3. How old was he when he died?
 - a. 48 years
 - b. 70 years
 - c. 78 years

A9 (continued)

This is the first of the three copula sentences . The structure is well balanced, the subject adumbrated in the first four lines and the complement in the remaining four lines. There is no subordination and the complication arises only from the two qualifying phrases with a relative construction at the head of each, የፈጸመው ሆኖ ፣ "he who completed it", in the subject, and የሰበረ ፣ "he who broke", in the complement.

The questions asked were again purely factual but the content of the first question was almost certainly common knowledge for it drew no errors. But even in questions two and three, where some confusion might, on the pattern of that observed in, for example, sentence A7, be expected there was almost no difficulty to be deduced from the results: 2 errors to question two and 4 errors to question three.

A10 (continued)

Questions

1. Who was the father of Emperor Menelik?
 - a. Aṣe Ləbnä Dəngəl
 - b. Abeto Ya'qob
 - c. Haylā Mäläkot

2. Which of the following is named King of Shoa?
 - a. Sahlä Sellassie
 - b. Haylā Mäläkot
 - c. Abeto Ya'qob

A10 (continued)

The second copula sentence is slightly more complex in structure than the first, although again subject and complement are elegantly balanced. The genealogical complexity is conveyed in a syntactic structure that does not give much assistance to comprehension. Although general knowledge might have assisted in the responses to the first question it could not assist with the second question, to which there were 14 incorrect replies. The answers to both questions are found in the subject, the structure of which is complicated by the sequence of relative constructions.

In understanding the passage it is, of course, necessary to bear in mind the two periods to which reference is made: the period of Lebna-Dengel and his son Abeto Ya'qob, and the more recent succession of Sahlä-Sellassie, Haylä-Mäläkot and Menelik II. The correct answers to the two questions, however, stem from two unambiguous phrases:

የሰላም ፡ ፕራው ፡ የሸቀ ፡ ንጉሥ ፡ የሣህለ ፡ ሥለሴ ፡ . . .

"the well known king of Šäwa, Sahlä-Sellassie's..."

and

ከንጉሥ ፡ ኃይለ ፡ መለኰት ፡ የተወለዱት ፡ . . .

"he who was born of King Haylä-Mäläkot..."

A11 የመከላከያ: ከሚሲዮን:

ይህ : አሁን : አካሉ : ላይ : የሚደረገው :
 የመከላከያ : ከሚሲዮን : ስብሰባ :
 ወደ : ሠቅ : በመከላከያ : ረገድ :
 አፍሪካውያን : የሚያደርጉት : የጎብረት : ሥራ :
 ምን : መልክ : ሊይዝ : እንደሚችል : ለመረጋገጥ :
 መጀመሪያ : አፍሪካ : አገሮች : ወጭ : ጉዳይ : ሚኒስትሮች ÷
 ቀጥሎም : አፍሪካ : መንግሥታት : መሪዎች :
 የተሟላ : ሐሳብ : እንዲቀርብ ፤
 አስፈላጊዎን : ዝግጅት : ለመፈጸም : ነው ::

Defence Commission

This which is now being held at Accra ,
 (the) meeting of the Defence Commission ,
 for the future, in the area of defence,
 joint action which Africans might take ,
 to discuss what form this might take and ,
 firstly to the Foreign Ministers of the African countries,
 then to the Heads of the African States ,
 that they should bring a considered plan ,
 it is to complete necessary preparations .

Addis Zāmbān, Təḵəmt 17 1956 E.C.

Length of sentence: 37 words, 161 characters

A11 (continued)

Questions

1. Where is the meeting to be held?
 - a. Addis Ababa
 - b. Accra
 - c. Nairobi

2. To whom is the Commission to submit its report initially?
 - a. To the Foreign Ministers
 - b. To the United Nations
 - c. To the Leaders of the African States

3. What is the subject of the conference?
 - a. The future form of defence
 - b. The future form of foreign policy
 - c. The possibility of trade development

A11 (continued)

The answer to the first question is expressed clearly in the opening phrase of the sentence and the question drew only one incorrect answer. But the other two questions indicated the complexity of the remaining structure; question two drew 16 incorrect responses and question three 14. It is the complement which demonstrates syntactic complexity. As in sentence A6 the co-ordinating conjunction -ና፣, suffixed to the infinitive, is held in suspense, in this example for 15 words, until the co-ordinated infinitive ለመፈጸም፡, "to complete", is reached.

Fourteen auditors failed to perceive the information regarding the initial recipients of the projected report. The even distribution of the 13 incorrect responses to question three, concerning the title of the conference, suggests that these auditors failed to perceive the information and then guessed at the answer, seven responding (b) and six responding (c). The answer to this question is located in a clause with a high information content:

የጥብቃት ፡ ሥራ ፡ ምን ፡ መልክ ፡ ሊይዝ ፡ እንደሚችል ፡ ለመናገርና፡...

"to discuss what form joint action might take".

The information load is of the order of 20 items rather than the 30 of the phrase discussed in connection with sentence A4, but still a sufficiently heavy load to produce an adverse effect on comprehension as measured by this test.

SET A: Factual content testing. Synthesis

a. Validity of results It is, of course, difficult to construct questions of the multiple-choice type which will give results which are both objective and significant. In the discussion of the results for individual sentences it has become apparent that the answers to some questions were matters of general knowledge. It was decided to investigate the results of the testing to see if student performance in the tests could be correlated with ability in Amharic as measured by the results of the Ethiopian Ministry of Education 8th grade examination in Amharic.

Two groups were constructed from amongst the 56 students. In the first group all members belonged to the 90+ percentile of the test and in the second all fell below this level. If the testing used in the present study reflects ability in Amharic then the former group should register fewer errors than the latter. In each group 5 students were listeners and 5 readers.

Table 1: Correlation between student errors and Ministry grading.

Group 1 90 percentile	Student: +No. of errors	W6 X2 Y3 Y8 Y10 Y11 Z1 Z17 Z18 Z19 2 7 2 3 7 6 3 3 6 4
Group 2 90 percentile	Student: -No. of errors	W1 W3 W9 X3 X13 X14 Y6 Y12 Z4 Z8 6 12 8 9 12 9 8 4 5 5

The total errors from the two groups are 43 and 78, the group with the lesser ability in Amharic, as indicated by the Ministry of Education's testing procedure producing 81% more errors than the group with the higher ability. The result suggests that the errors recorded here are not random, but are related to ability in Amharic.

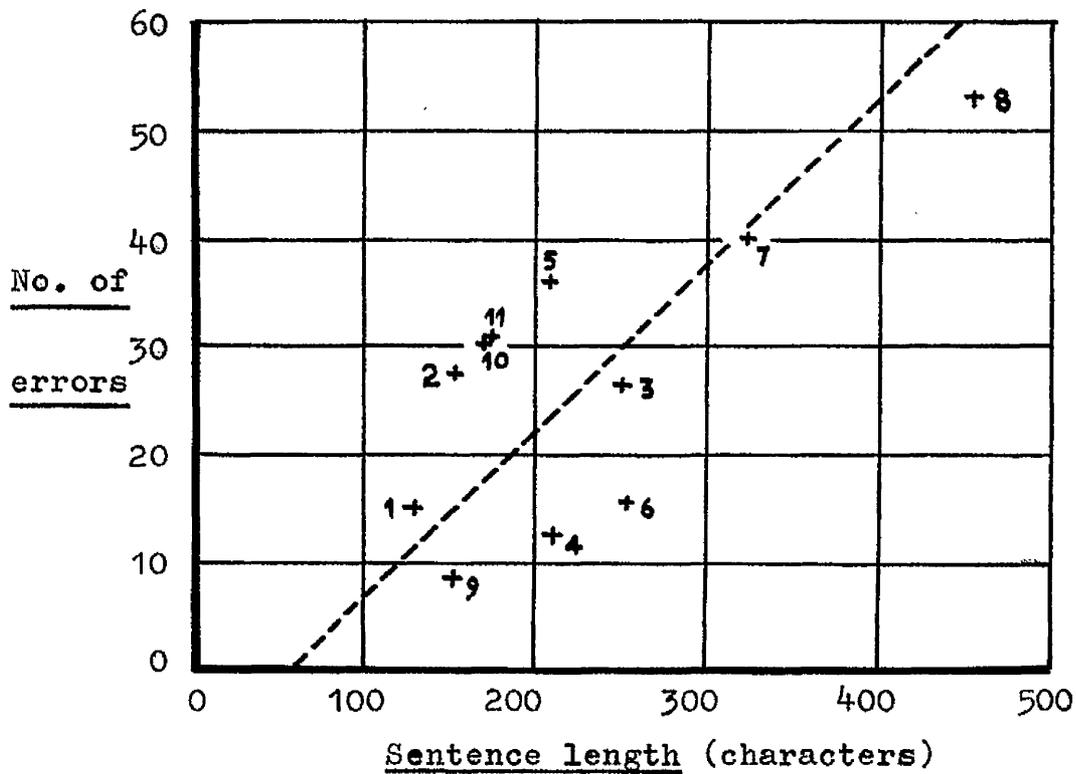
b. Comprehension and sentence length Although sentence length simpliciter can adversely affect comprehension, as is evidenced by the fact that languages do not normally exhibit sentences of inordinate length, the present results do suggest that sentence length is not an adequate index to sentence complexity.

For the purpose of the attempt to correlate sentence length and the number of errors attracted by the sentence some adjustment of the totals of errors was necessary. Thus for some sentences there were two questions, for others three, and experience indicated that some questions must be disallowed. To give an approximation in these cases of deficiency the number of errors has been scaled to an equivalent for three questions by proportion.

In the table that follows one question has been disallowed for each of sentences A7, A9 and A10, the answers being shown by the tests to be matters of common knowledge. Reference may be made to the discussion of the individual sentences for further information on this point.

Effect of sentence length on comprehension

Sentence no.	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
Length (words)	32	45	66	55	58	58	76	109	40	40	37
" (characters)	126	150	251	209	208	257	319	452	152	160	161
No. of errors	10	28	27	12	36	14	27	53	6	20	31
No. of questions	2	3	3	3	3	3	2	3	2	2	3
Corrected no. of errors	15	28	27	12	36	14	40	53	9	30	31



The graph shows that, as might be anticipated from a priori considerations, there is a tendency for the longer sentence to be more opaque to comprehension than the shorter sentence. But it is clear that other factors are also involved so that sentences of similar length, say A2 and A9, have notably different opacities.

c. Comprehension and syntactic structure

The graph draws attention to two groups of sentences; in the first group sentences A4, A6 and A5, and in the second group A9, A10 and A11. The sentences within each group are of approximately equal lengths but one member of each triad attracted a markedly different total of errors from the remaining members of the group. Thus A5 attracted 36 errors compared with the 12 and 14 errors of the other two sentences of the group while, in contrast, A9 attracted only 9 errors compared with the 30 and 31 of the other two of its group.

Comparison of sentences A4 and A5 is facilitated by the fact that their subject matter is similar and in each the main verb is a passive form. A4 has 55 words, A5 has 58 words. The structure of A4 is essentially linear, a sequence of gerund clauses interrupted by a subordinated sequential imperfect form. The subject appears in the first line and remains the subject of succeeding clauses until the main clause is reached. This structure is discussed in greater detail in chapter six, p.266 below.

In sentence A5 we have a cyclic structure. Again the subject is expressed in the first line, but the subjects of the succeeding clauses vary. To add to the confusion the time sequence is broken although the simple gerund $\phi\lambda\pi$: , "he having attended", fails to mark this break decisively.

The cyclic nature of the structure is marked by the caesurae, defined by the sequence of subordinated infinitives. Each of the four infinitives marks the close of a subordinated clause, which is then held in suspense until the clause

$\bar{\delta}\bar{\eta}$: $\eta\epsilon$: $\rho\tau\phi\eta$: $\sigma\sigma\epsilon\gamma$:

"that he was fined 100 dollars",
is reached.

This cyclic structure appears also in sentence A7, which attracted 27 errors from two questions, equivalent, perhaps, to some 40 errors over three questions. In contrast sentence A8 is essentially a linear structure, with co-ordination, the simple gerund and sequential subordinating particles ($\eta\lambda$: $\pi\chi\lambda$: , "after saying", $\sigma\delta\alpha$: $\rho\lambda\eta$: , "giving a reply", $\eta\lambda\omega$: $\lambda\gamma\eta\lambda\epsilon\eta$: , "having said, as he explained") as the principal means of expansion. Although this sentence attracted 53 errors this total is smaller than sheer sentence length might have led us to expect.

It was the shortest of the three sentences A9, A10 and A11 which attracted the most errors. A9 exhibits no subordination. In A11 we note, in addition to subordination, the appearance of the suspended

co-ordinating conjunctions. In the discussion on sentence A10 attention has already been drawn to the confusing nature of the genealogical information but it is reasonable to suppose that had this same information been expressed in a less complex syntactical structure it might have been more transparent. The concept of linearity of syntactic development is lost because of the subordination employed and semantic linearity is lost as the time reference varies bewilderingly: from the sixteenth century to the nineteenth century, the twentieth century and back again to the nineteenth.

It is recognized that the approach to measuring complexity by comprehension and absorption of information can lead only to approximations. But it would seem clear that while comprehension is in a general way adversely affected by increasing length the further factor of sentence structure is decisive in determining opacity. In Amharic it would appear that subordination, particularly where this involves the suspense feature, may inhibit comprehension.

d. Comprehension and mode of auditing Of the four groups of auditors one group from each school READ the sentences and one group from each school LISTENED to them from a tape recording. On average the boys had the better ability in Amharic so that direct comparison between the groups was not possible. However four sub-groups were set up, matched for ability in Amharic as indicated by the Ministry of Education's 8th grade examination in Amharic. Five students were selected from groups W and X and

11 students from groups Y and Z. There was thus a total of sixteen students from the listening and sixteen from the reading groups, the two sets matched in ability.

i. The matched groups. The student's number and the mark gained in the Ministry's examination is given:

Reading group		
Student no:	W1 W3 W4 W6 W9	Y3 Y4 Y6 Y7 Y8 Y10 Y11 Y12 Y13
Exam mark:	77 57 47 98 47	95 90 89 99 98 96 97 82 100
Listening group		
Student no:	X3 X13 X5 X2 X14	Z17 Z3 Z8 Z20 Z19 Z18 Z1 Z4 Z7
Exam mark:	77 59 47 96 51	98 90 89 99 98 97 98 82 100
Reading group		
Student no:	Y14 Y16	
Exam mark:	96 100	
Listening group:		
Student no:	Z2 Z12	
Exam mark:	98 100	

ii. The distribution of errors. When the number of errors recorded over the entire range of eleven sentences is considered there is no significant difference to be observed between the listening and reading groups. Sub group W registered 36 errors and the listening sub-group X registered 41 errors; sub group Y registered 44 errors, precisely the same number as sub-group Z.

The overall totals of 80 errors in the reading group and of 85 in the listening group, an increase of 6%, do not permit any conclusion to be drawn regarding the possible advantage of the one method of auditing over another. It is possible, however, that one method might prove advantageous in relation to some specific syntactical structure. To test this hypothesis the sentences were divided into two groups, those attracting a generally high total of errors and those attracting a generally low total of errors. There were five sentences in each group. ne /

The less opaque group consisted of A3, A4, A6, A8 and A9, the more opaque group of A1, A2, A5, A10 and A11. Again the matched groups of students were used and their totals of errors in relation to these groups of sentences considered. For the low opacity group of sentences there were marginally fewer errors in the listening group, the totals being 39 and 32 errors. But in the high opacity group there were 47% more errors in the listening group, 44 as compared with 30.

The results may most conveniently be tabulated. For the purposes of comparison the (misleading) figures obtained for the unmatched total groupings of all participants are included. In this case since the numbers of participants in the two groups were unequal the errors recorded by the smaller group have been increased proportionately.

	Unmatched	Matched		
	all 11 sentences	all 11 sentences	5 simple sentences	5 opaque sentences
Listening gps:	168	85	32	44
Reading gps:	128	80	39	30

The statistics obtained from the unmatched groups, involving all the students, and with 24 students in the reading group and 32 in the listening group cannot, for obvious reasons, be used for deducing any advantage of the one method of audition over the other.

However there appears to be a measure of significance in the results obtained with matched groups and the more opaque sentences. Here there is a 47% increase in the number of errors recorded by the listening group over the 30 errors recorded by the reading group. This would suggest that the visual presentation provides some measure of re-inforcement assisting in comprehension. With simple sentences, that is those with apparently transparent structure as measured by comprehension, no such advantage is apparent.

e. Comprehension and information load In considering the errors attracted by the questions the question of information load has twice appeared. We do not have any well-developed theory of the way in which the brain apprehends the information conveyed by prose which might enable us to define the meaning of the information load of an item. This will, however, include the semantic content of the word and those features of the word which distinguish it from other words and define its relationship to its environment.

The total information load of the verb will include all affixes as well as indications of number, person, tense and, in the singular, gender. Nominals may be modified by plural markers, definite article, the accusative suffix or by prepositions. In the computation note was made of broken plurals and of all variant forms of words.

The sentences are here listed in order of increasing information load. Sentence length is also given and the information load per word has also been calculated. The number of errors recorded in the table is the corrected total, allowance having been made for divergences in the numbers of questions set.

Sentence no:	A9	A2	A1	A11	A10	A4	A5	A3	A7	A6	A8
Information load:	78	83	98	105	117	136	160	161	175	183	337
No. of words	40	45	32	37	40	55	58	66	76	58	109
Information/word	1.9	1.8	3.1	2.9	2.9	2.5	2.8	2.4	2.3	3.2	3.1
Total errors	9	28	15	31	30	12	36	27	40	14	53

Once again it is clear that sentence length, here measured in terms of information load and information load per word, does not decisively determine sentence complexity as measured by comprehension. There is a tendency for sentences with heavier information loads to attract the greater numbers of errors, but other influences are also operative. And information load per word shows no correlation with sentence opacity.

CHAPTER SIX: COMPREHENSION AS PROJECTION OF GRAMMATICAL
STRUCTURE

Selection of sentences; Set B: the sentences (text, translation, commentary); Set C: the sentences (text, translation, commentary); Summary of results: distribution of simple and compound verbal forms, selection of active/passive forms of main verb, loss of concord and the pendent nominative, the concept of linearity.

CHAPTER SIXComprehension as projection of grammatical structure

This chapter presents the results of tests in which auditors were required to supply a suitable conclusion to incomplete sentences. Two sections of testing are included in the chapter, the first in which only the final verb had to be supplied and the second in which a complete phrase was omitted. The two sets of sentences involved are designated Set B and Set C. The sentences and test results for set B are discussed first, then the sentences and test results for set C and finally the overall conclusions to be drawn from this aspect of the testing are discussed in some detail.

For Set B thirteen sentences were selected, with sentence lengths ranging from 23 words to 52 words. The sentences were presented to the auditors without the closing main verb. As in the testing of sentences of Set A two groups of auditors READ the sentences from wall charts and two groups LISTENED to them from a tape recording. In preparing the tape recording care was taken to ensure that the falling intonation belonging properly to the closing word of the sentence was not transferred to the closing word of the incomplete sentence.

The sentences selected fall into distinctive groups. The first three sentences all employ the copula as the main verb, two of the forms being in the third person masculine singular and the

remaining sentence using the third person plural. The next four sentences are all context orientated, presenting pronouncement-type structures. Sentences B8 and B9 employed active and passive forms of the same verb, $\text{F}\Lambda$ and $\text{+F}\Lambda$, these two then leading into a sequence of three sentences all with an original passive main verb. Sentence B13 is an example of a contrastive sentence structure employing XYZ , with the added feature of the infixed preposition - Ω - associated with each of the contrasting verbs.

Although the sentences have been re-grouped here they were presented to the auditors in the date-order in which they were originally published. This brought together sentences from the same articles but concealed from the auditors the underlying pattern in the types of structures being presented to them.

Information sought from these tests included the point of breakdown of comprehension as indicated by a proposed verbal form which failed in concord, in semantic cohesion or in some other way, an evaluation of auditor response to situations where a passive verb was required, an indication of student preferences for simple or compound verbal forms and the employment of epexegetic pronominal suffixes.

Set C also consisted of thirteen sentences, each being presented to the auditors without the closing phrase. The break in the sentence was introduced to test the student's ability to recognize sentence structure to follow at an earlier stage than required for

the provision of a verb only. In the first group of sentences the break is made after the appearance of a modifier for which a nominal head and a verbal form must be provided. The original constructions are given here:

C1	የመሰነባበቻ :	ግብዣ : አድርገውላቸዋል ::
	a farewell	feast they have made for him
C2	ያሉበት :	ንግግር : አድርገዋል ::
	that which contained	speech he has made
C3	ያላቸውን :	እምነት : አስገኘዘቡ ::
	that which he had	faith he explained
C4	የሱኪር :	ፋብሪካ : ጎበኙ ::
	of sugar	factory he visited
C5	የበሰ : ምን :	ችግር : ይገኛል?
	what worse	trouble can be found?

Sentences C6 and C7 are two open conditional sentences employing ሲ- : or ሲ- : plus simple imperfect in the protasis and requiring ለ- : plus simple imperfect in the apodosis. Both C7 and C8 investigate the auditors' interpretation of the preposition as locative or accusative.

Structure to follow in sentences C9 and C10 is signalled in each case by a preposition

C9	ከመረጃ ቤት :	ጸረዥው : ሠራት : ገልጿል ::
	from the information office	the report which was sent has revealed
C10	ከዘመዶቻቸው : ጋር :	በማገናኘት : ረድተዋል ::
	with their friends	by joining together they have helped

Both C10 and C11 were used to examine epexegetis, the object made explicit in a subordinate clause being re-iterated by a pronominal suffix to the main verb by many auditors. In C11 the break occurs immediately after a verbal form:

C11 ይዘው፡ በመሰለፍ፡ አሰደሰች፡ አቀጣበል፡ አደረጉ።

holding by parading they made a pleasing reception
and in C12 similarly the break occurs after a verbal form, here a gerund:

C12 ያሉበት፡ ጣቢያ፡ አቋቋሞ፡ ነፍ፡ ያለ፡ አገልግሎቱን፡ አበርካቷል።

having established a place they have performed a very
containing it valuable service.

The final sentence in this set is one requiring some form of the verb አለ፡, "to say", for its completion:

C13 እንደሚደግፍልን፡ ተስፋ፡ አድርገናል፡ ሲሉ፡ ገልጸዋል።

that they will support it we have set, saying they
for us our hope indicated.

Set C clearly continues and extends the investigation begun with Set B and further examination was possible of auditor preferences for simple and compound verbs and of the breakdown in concord and semantic cohesion in the verbal forms provided. The principal additional features examined in this section are indicated above in the discussion of the sentence types selected.

Set B: The sentences The text of the thirteen sentences is set out so as generally to indicate the structural units. A rather literal, line for line translation follows the text of each sentence. The structure of each sentence is then discussed with special reference to the test results. Discussion at this stage is confined principally to the one sentence under review, although comparison with other test sentences of similar or contrasting structures may be made.

As has already been indicated above the sentences were not presented to the auditors in the sequence used here, a sequence which reflects the structural groupings of the sentences, but in the order in which they were originally published.

Although the results of the tests for those listening and those reading have been kept separate the numbers of auditors from the different groups who made strictly comparable deviations from the overall patterns of response were small. No consistent attempt has been made, therefore, to compare the performances of the two groups.

B1 የግርማዊት ፡ እቴጌ ፡ መኖን ፡ የሙት ፡ ዓመት ፡ መታሰቢያ ፡

የዛሬ ፡ ዓመት ፡ የዕረፍታቸው ፡ ዜና ፡ በተነገረ ፡ ጊዜ ፤
 የመላው ፡ የኢትዮጵያ ፡ ሕዝብ ፡ ልቡና ፡ በጎዘን ፡ መሸበሩ ፤
 አየሩ ፡ ሠሉ ፡ በዋይታ ፡ በሰቅሶ ፡ ድምፅ ፡ መመላቀቅ ፤
 ሕፃናት ፡ እናታችን ፡ አሳዳጊያችን ፤
 ድንገጣዊ ፡ ደጋፊያችን ፡ ረዳታችን ፡ አሳታሚያችን ፡ ሲሉ ፤
 የአያንዳንዱ ፡ ሰው ፡ ሕሊና ፡ ተነክቶ ፡ እንደነበር ፤
 በዛሬው ፡ ሰባት ፡ የሚታወቅ ፡ ነው ።

Anniversary of the passing of the Empress Mennen

One year from today, when the news of her passing was announced,
 that the spirit of the entire Ethiopian people was moved with
 sorrow,
 that the whole air was filled with wailing and the voice of
 mourning,
 children: "Our mother! Our guardian!" ,
 the weak: "Our protector! Our helper! Our comforter!"
 as they cried,
 that each person's soul was smitten,
 it is recalled this day.

Addis Zämäñ, Yäkatit 7 1955 E.C.

Length of sentence: 35 words

B1 (continued)

The results suggest that the signal supplied by the relative construction የሚታወስ፡ made the prediction of the copula a simple matter. Of the 63 responses all but ten supplied the form given in the original, ነው፡, and a further six either ነበር፡ or ነበረ፡ . One simply corrected የሚታወስ፡ to ይታወሳል፡ and there was one blank.

Of the remaining three forms offered two were clearly aberrant and to be ignored: ይነገራል፡ and ሕዝብ፡ . The former of these two came from an auditor (in a listening group, group X) who produced a number of atypical responses, possibly having failed to comprehend the original instructions.

The third unacceptable form was ነበረ፡, clearly intended as such and not merely to be ascribed to poor writing. It is surprising that the break in concord with the preceding relative was not apparent to this auditor who has taken the pronominal suffixes to the infinitives and the plural form of the subordinated imperfect ሲሆን፡ as indicators of a plural main verb, or, alternatively, has supplied the name of the Empress as subject and has employed the plural copula as the polite form.

B2 የግርማዊት፣ እቴጌ፣ መነን፣ የሙት፣ ላሙት፣ መታሰቢያ፡

ግርማዊት፣ እቴጌ፣ መነን፤

ፍቅር፣ እግዚአብሔርን፣ ፍቅር፣ ሕዝብን፣ አስተባብረው፣ የያዙ፤

ገሥጋ፣ ለነፍሱ፣ ገላለጸ፣ ግሰጸ፣ ይሰቅ፣ ለጸሎት፣ ለጸጸ፣ ያደሉ፤

በሃይማኖት፣ ኃይል፣ ልዩ፣ ልዩ፣ ፈተናን፣ ገሸነፉት፡

ገብሶ ልቆቹ፣ ገደቶቹን ገግሟቸው፡

ገእነ፣ እቴጌ፣ ሰብላ፣ ወንጌል፣

ገእነ፣ እቴጌ፣ ማርያም፣ ሥና፣ ጋር፡

የታሪክ፣ ሰጅግትና፣ ፍጹምነት፣ ያላቸው፤

ታላቅ፣ መንፈሳዊት፣ አብነት፣ ናቸው።

Anniversary of the passing of the Empress Menen

Her Majesty the Empress Menen,

One who claimed both the love of God and the love of the people

One who ministered rather to the spirit than the flesh,

rather to prayer and fasting than to worldly pursuits,

with those who, in the power of faith, overcame various testings,

with the great Empresses of Ethiopia

with Empress Säblä-Wängel

with Empress Maryam Sēna

One who has historic stature and wisdom

she is a great and spiritual example.

Addis Zämän, Yäkatit 7 1955 E.C.

Length of sentence: 41 words (although written as separate words

the two occurrences of ገእነ- are treated as

affixes)

B2 (continued)

The sentence displays co-ordination in the first relative clause, but a loose, asyndetic, construction in the second relative clause. The structure ሰዶ፡ ሰዶ፡ ፈተናን፡ , with the nominal in the singular (contrast ሰዶ፡ ስዶ፡ ሰዎች፡ , "various types of people") is a common form of synesis in which the semantic concept of singularity over-rides the expected plural.

In the testing 44 students used one of the forms ነበረ + ነበሩ፡ or ነው ÷ ናቸው፡ . A further fifteen, however, used ነበራቸው፡ or አለቸው፡ , suggesting that አብነት፡ , "example", had been taken attributively instead of as a substantive. There was, again, one blank and one nominal supplied, እቴጌ፡ , "Empress", as well as the unacceptable verbal ተነገረላቸዋል፡ , "it has been said to her".

Examination of the sentence structure shows that the nominal phrase ታላቅ፡ መንፈሳዊት፡ አብነት፡ , "a great spiritual example", has been qualified by three relative clauses, the whole supplying the complement for which the subject is ግርግሮች፡ እቴጌ፡ መናን፡ , "Her Majesty the Empress Menen". Apparently those auditors who were not acquainted with the form አብነት፡ compared it with such attributive forms as አንድነት፡ , "one-ness" or ፍጹምነት፡ , "completeness" and thus deduced an attributive function for the word. But this then leaves the attributive relative clauses modifying an attributive, not a substantive, noun which is required as a parallel to the noun phrase of the subject.

B3 በለ : ማኅበራዊ : ኑሮ :

ሕፃን : ልጅ : እናቱ : ጡቷን : ስታቀርብለት ፤
 እሱም : በበጎሉ : በመሳብ : መርዳት : እንዳለበት : ሁሉ ፤
 የማኅበራዊ : ኑሮ : የቤት : አባት : ገመራ ፣ በስተዳደሩ : በጎሉ :
 የራሱን : ግዳጅና : ጋላህነት : ለማቃናት : ሲገደፍ ፤
 ተዳዳሪና : ተመራው : የሆነውም :
 ምን : ሠርቶ : ምን : ጥቅም : ለማግኘት : ያለበትን : ተግባር :
 በተጠናቀቀ : አገሩን : የበሰለ : አድርጎ : ማቅረብ : እንዳለበት ፤
 ከሚያምን : ሰይጣኑ :
 ሊያውቀው : የሚገባው : ግዴታው : ነው።

Concerning community life

When a mother offers the breast to her child,
 just as he, for his part, must assist by drawing it (to him),
 (so) in his leadership and in his counsel the leader of a community,
 when he is quick to carry out his tasks of responsibility and
 leadership, then
 the one who is advised and led,
 the tasks which he ought to do for his own profit,
 that he should do them diligently and responsibly,
 without needing to ask anyone,
 he should realise that this is his duty.

Addis Zāmān, Page 4 1955 E.C.

Length of sentence: 45 words

B3 (continued)

The pendent nominative in the first line, ሕፃን፡ልጅ፡እናቴ፡, "a small child, its mother", is not a common feature of Amharic style although this example is by no means unique. The asyndetic construction of two nominals governed by the repeated preposition, ባመራ፡፣ ባስተዳዳሪ፡, "in his leadership, in his counsel", is, however, typical of good Amharic style.

The great majority found no difficulty in supplying the copula to follow the nominal ግዴታው፡, "his duty". In fact 57 responded with ነው፡ and one replaced the less familiar ግዴታው፡ with ሥራው፡, "his work", before adding the copula. One must assume either that the student intended that the relative should be omitted altogether, thus eliminating the repeated pronominal suffix, or simply overlooked the suffix on the relative.

Three responses employed the verb ሆኖ፡,

ይሆናል፡, "it is", or, "it may well be",

ይሆንበታል፡, "it is for him", or, "it may be for him",

መሆን፡አለበት፡, "it ought to be".

In employing the infix preposition the second and third of these appear to be reflecting the students' appreciation of the parallel preceding construction እንዲለበት፡.

The suggested አቅርቧል፡, "he has offered", presumably reflects the repeated use of አቀረ፡ in the sentence. It is possible that this

B3 (continued)

has concealed the essential parallelism of the clauses:

"When the mother offers her breast	A1
then the child has to assist	B1
and just so	
when the leader exercises his leadership	A2
the led must play his part"	B2

for the verb $\kappa\phi\lambda\pi$: occurs in the non-parallel clauses A1 and B2, suggesting a form of chiasmus so that A1 parallels B2 and B1 parallels A2.

Brief consideration of the results of testing with the three copula sentences suggests that this form of sentence is not well adapted to the type of testing used in this section. When the copula alone must be provided the overall sentence structure is so transparent that there will be few who fail to perceive it. The result is a homogeneous body of responses with only a very few divergencies from the majority response.

B4 (continued)

This measure of complexity leads to the separation of the subject, ባለ፡ሥልጣኖቻ፡, "officials", from the main verb by 25 intervening words. This has led to a wide range of incorrect responses, including passive forms such as ታውቆታል፡, "they are known", and forms failing collocationally, in addition to forms failing in concord such as አውቆናል፡, "we have known".

The incorrect responses are here summarised:

a. Passive forms

ታወቀ፡	(2)	ታውቋል፡	(1)	ይታወቃል፡	(1)	ያስታውቃል፡	(1)
		ታውቆታል፡	(2)				
		ተረጋግጧል፡	(1)	ይታወቀዋል፡	(1)		

b. Forms failing in concord and/or tense

ገለጸ፡	(1)			ይገልጻል፡	(1)
				ይገልጽልናል፡	(1)
አወቀ፡	(1)	አውቆናል፡	(1)	እናውቃለን፡	(2)
				አንዛንጋገፍ፡	(1)
				ያስረዳሉ፡	(1)
				ያሳያል፡	(1)

አረጋግጧል፡(2)

c. Forms failing in collocation

ነው፡ (4)

The form አረጋግጧል፡ should probably be identified as an error of spelling for the required plural አረጋግጧል፡. Neglecting also, for the moment, the copula forms, we note that 19 of the responses

B4 (continued)

indicate that the suspended subject has resulted in a failure to comprehend the structure of the sentence so that the verb supplied leaves a pendent nominative.

But the suspense feature is not confined to the subject. It is also involved in the completion of the relative phrase ከገደ፡ ሆነው፡ የሚገኙት፡ , "those which are found to be hard", which is separated from the infinitive መሆናቸውን፡ , "their being", by the complement of 14 words.

It appears to be this double complexity which makes this sentence notably opaque to comprehension, anacoluthon resulting from complexity of structure within a not notably long sentence.

B5 የረጅም፣ ሃሳብ፣ ጽርጅ፣ እንዲቋቋም፡

የተባበሩት ፡ መንግሥታት ፡ የምግብና ፡ የእርሻ ፡ ጽርጅ፣ ፡ ዋና ፡ ደራሳተኛ ፡
 የረሀብን ፡ እሳታቂ ሃት ፡ በማሰብና ፡
 ለዚህም ፡ ልዩ ፡ ጥረት ፡ ማድረግ ፡ የሚያስፈልግ ፡ መሆኑም ፡ በመገንዘብ ፡
 ረሀብንና ፡ በቂ ፡ ምግብ ፡ ያለማግኘትን ፡ ጉዳይ ፡
 ስላለም ፡ ለማስወገድ ፡ የሚቻልበትን ፡ ዘዴ ፡ የሚያጠና ፡
 አንድ ፡ ጽርጅ፣ ፡ እንዲቋቋም ፡
 ሐሳብ ፡ አቀረቡ ።

Towards the establishment of a Freedom from Hunger Organization

The Principal Director of the United Nations Food and Agricultural
 Organization,
 in considering the horror of starvation and
 also recognizing the necessity of taking specific action about it,
 starvation and malnutrition,
 one which would seek a way to banish from the earth,
 that an Organisation be set up,
 he presented a suggestion.

Addis Zāmān, Yākatit 7 1955 E.C.

Length of sentence: 32 words

This is a further example of sentence structure in which the subject is held in suspense, here through a succession of clauses extending to 24 words. Sentence B⁴ featured the relative construction and this sentence features the infinitive: six of them

B5 (continued)

appear. Note the complex synthesis of the form $\$A\sigma\eta\tau\dot{\tau}\dot{\tau}\dot{\tau}$, "the not obtaining (accus)" in which the infinitive of the verb $\dot{\tau}\dot{\tau}$, "to obtain", is modified by the negative proclitic $\dot{\tau}\dot{\tau}$: further modified by the preposition and the suffixed accusative marker.

To most of the auditors the noun $\dot{\tau}\dot{\tau}$, "thought", was an adequate signal and most produced responses of the simple perfect type, $\dot{\tau}\dot{\tau}/\dot{\tau} \div \dot{\tau}\dot{\tau}/\dot{\tau} \div \dot{\tau}\dot{\tau}/\dot{\tau}$: "he brought", "he made", "he suggested". In addition to the fifty acceptable responses of this type there were eleven responses using the compound imperfect in $\dot{\tau}\dot{\tau}$.

The three unacceptable forms were the copula $\dot{\tau}\dot{\tau}$, the passive $\dot{\tau}\dot{\tau}$: "it was considered" and $\dot{\tau}\dot{\tau}$: "he said to them". The copula makes no sense since it presupposes the word $\dot{\tau}\dot{\tau}$, "idea", as complement for which no subject can be identified. The passive was apparently suggested by the word $\dot{\tau}\dot{\tau}$, but it leaves the sentence with a pendent nominative. The third incorrect response, $\dot{\tau}\dot{\tau}$, "he said to them", correctly interprets the situation in which the sentence was generated and correctly identifies the subject but fails to take account of the nominal $\dot{\tau}\dot{\tau}$.

We have in this sentence what is essentially a direct speech type, but so modified in the penultimate word that the simple $\dot{\tau}\dot{\tau}$, "he said" conclusion is excluded. The three failures arose from a failure to recognize this point.

B6

የስልክ ፡ አስፋገገጋት ፡

እሷም ፡ (ወይዘሮ ፡ ጌሩ ፡ ወርቅ ፡ ደስታ ፡) በለቅዳሮ ፡ ስለሆነች ፤
 እንዴት ፡ የቅዳሮ ፡ ጓደኛዋን ፡ እንደመረጠች ፡ ስጠይቃት ፤
 ስሁሉ ፡ ነገር ፡ መላሻ ፡ ምክንያት ፡ እንዳለው ፡ ሁሉ ፤
 እኔም ፡ በባለቤቱ ፡ ላይ ፡ መጀመሪያ ፡ ዓይን ፡ ለዓይን ፡ ሰንገናኝ ፤
 ብዙ ፡ ጊዜ ፡ በስልክ ፡ ስንገናኝ ፤
 ድምፁና ፡ የአነጋገሩ ፡ ስልት ፡
 መስካም ፡ መንፈስ ፡ ፈጥሮብኝ ፡ ነበር ፡
 አለችኝ ፡፡

The value of the telephone

And since she (Wäyzäro Təru Wärq Dästa) is a housewife, when I asked her how she chose her life-partner:

"Just as there is a starting point for everything so I, before ever I met my husband face to face, when we conversed frequently on the telephone, his voice, and the manner of his speaking had made a very favourable impression on me" she told me.

Addis Zäman, Təḫəmt 17 1956 E.C.

Length of sentence: 37 words

B6 (continued)

The sentence includes both direct and indirect speech and caused the auditors a measure of difficulty indicated by four failures to complete the sentence at all and nine occurrences of ነበር: , re-iterating the closing word of the incomplete text, presumably suggesting that no further addition was required.

Ten of the acceptable forms included a pronominal suffix, thirty did not:

አለኝ:	simple perfect, no pronominal suffix	22
ብላለኝ:	compound gerund, no pronominal suffix	8
አለኝኝ:	simple perfect, 1st sing. pronom. suffix	7
ብላለኝኝ:	compound gerund, 1st sing. pronom. suffix	1
ትላለኝ:	compound imperfect, 1st sing. pronom. suffix	1

and the more elegant

ብላኝ፡ነገራችኝ: with the pronominal suffix appearing pleonastically on each element.

With these 40 correct forms we may contrast

ብለዋል/ብለውዋል: , both possibly intended as the polite third person, in deference to the married status of the speaker,

ኸለ: which possibly, but if so, surprisingly, is to be referred to the husband, and

አለቻት: which occurs three times and indicates a failure properly to interpret ስጠይቅ: as

being in the first person. This may also explain the form ኸለ: ,

mentioned above, for it has been noticed that many Ethiopian schoolchildren interpret both ስጠይቅ: and ሲጠይቅ: as the third person masculine singular.

B7 አፍሪካውያን ፡ በተባበሩት ፡ መንግሥታት ፡ ድርጅት ፡ እንዲሠሩ ፡ ተመረጡ ፡

እርሳቸውም ፡ (ሚስተር ፡ ኖሊን ፡ ባናጉምበስ) ፤

በአፍሪካ ፡ ውስጥ ፡ ሲዘዋወሩ ፤

ሰለገጠሟቸው ፡ አንዳንድ ፡ ሁኔታዎች ፡ ሲያብራሩ ፤

የቀጣሪው ፡ ጻድ ፡ በደረሰበት ፡ ሁሉ ፡ መልካም ፡ መስተንግዶ ፡ የተደረገለት ፡ መሆኑን ፤

ለተሠማራበት ፡ የምልመላ ፡ ተግባር ፡ አኖጋቢ ፡ ችሎታ ፡ ያላቸው ፡ አፍሪካውያኖች ፡

ከመግኘቱም ፡ ሌላ ፡

የተባበሩት ፡ መንግሥታት ፡ የአቅጣጠር ፡ ሁኔታና ፡

የአፍሪካን ፡ ሠራተኞች ፡ ለመቅጠር ፡ የሚያስፈልጉትን ፡ ሁኔታዎች ፡

ለአፍሪካ ፡ መንግሥታት ፡ በሰፊው ፡ ለማሰራዳት ፡ መቻሉን ፡

ጠቅሰዋል።

Africans selected to work at the United Nations

And he (that is, Mr Nalin Banagumbäs),

as he toured round Africa

in discussing some of the experiences which befell him,

that in every place visited by the Appointments Board it had

been given a warm welcome,

that in addition to finding Africans with abilities suited to the

selection principles under which it was sent out,

the principles of recruitment to the United Nations and

the qualifications necessary in African appointees

that it was able to explain in detail to African govern-

ments,

he revealed.

Addis Zämbän, Hedar 23 1958 E.C.

Length of sentence: 43 words

B7 (continued)

Although the sentence structure is involved it is clear that this is a statement sentence, collocational requirements indicating a main verb of the ገለጸ፡ or ጠቀሰ፡ type. There were 64 responses, thirty of them incorrect. Three auditors offered the copula ነው፡ and another the form አለበት፡, "he ought to". There were three passive forms: ተረጋግጧል፡, "it has been confirmed", ተገልጸዋል፡, "it has been revealed", ተረድተናል፡, "we have understood" and 23 verbs of the correct collocational class but singular forms.

The breakdown in comprehension arises as a consequence of the references to the Board in the singular, in particular in the infinitive which immediately precedes the main verb, መቻሉን፡, "its being able", and the polite form used throughout for the speaker. This failure cannot be referred to incorrect spelling since there are fifteen singular forms in the perfect, where the distinction between singular and plural is not ambiguous, and eight in the compound gerund, where it is possible for poor spelling to result in an ambiguous form.

This sentence certainly indicates that where the subject is held in suspense while subordinate clauses are inserted, concord is likely to be violated when eventually the main verb is reached.

The distribution of simple and compound verbal forms for this sentence is considered in detail below¹.

¹ pp. 254 ff.

B8

የቴሌኮሙኒኬሽን ፎርድ ሥራው እንዳሻሻለ፡

ይህን ለመዳፍ ምክንያት፡ የሆነኝ ግን፤
 በይርጋ፡ ዓለም፡ ገተማ፡ በሰጠኝ፡ ቤቱ፡ ሕንፃ፡ ላይ፡ የሰበረው፡
 የኢትዮጵያ፡ ሬዲዮ፡ ጣቢያ፡ የሚሰጠውን፡ ወራ፡ የሚያሰማ፡
 የድምፅ፡ ማገድ
 አገልግሎቱ፡ ለሕንፃው፡ እንዲፈጸም፡ ለሕዝብ፡ አስረኝ፡
 ማገድያዎቹ፡ ብዙ፡ ሕዝብ፡ በሚሰበሰቡበት፡ አደባባይ፡ ላይ፡
 እንዲቆሙ፡ እንዲደረግ፡ ተብሎ፤
 በጊዜጣ፡ በተጠየቀው፡ መሠረት፡
 ይኸው፡ ማገድያዎቹ፡ ገሕንፃው፡ ተሰላሰሉ፡
 ጌቶች፡ በሰደተኛ፡ ጌቶች፡ በአራዳ፡ ካፍሱ፡
 እንዲቆሙ፡ በመደረጉ፡
 ሕዝቡ፡ ሊጠቀሙባቸውና፡ ሊገለገላቸው፡ ቻለዋል።

The Telecommunication Board improves its services

And the reason for my writing this,
 those which were on the telegraph office at Yerga Alām,
 the loud speakers which broadcast the news put out by the
 Ethiopian radio station,
 their operation was for the building, not for the people and
 the loudspeakers, in the square where great crowds gather,
 that they should be set up, as it was suggested,
 as a consequence of a newspaper suggestion,
 these loudspeakers, being removed from the building
 one in the Sedätāñña District, the second in the Arada District,
 by ensuring that they be placed,
 the people have been able to profit from them and use them.

B8 (continued)

Addis Zämän, Nāhase 13 1955 E.C.

Number of words: 52

The subject of the main verb of this rather long sentence appears near to its end and it is made clear that ሕዝብ፣ , "people" is to be taken as singular and not plural by the two subordinated simple imperfect forms which separate it from the main verb.

Although the structure appears to be transparent there were six incorrect responses, the copula, which makes no sense at all, two passive forms, ተደረገ፣ and ተደርጓል፣ , "it was done" (each appearing twice) and በመቻሉ፣ ነው፣ , "it is because it was able". The articular infinitive apparently refers to ሕዝብ , and is possibly a reflection of በመደረግ፣ , "by its doing" in the clause preceding the word ሕዝብ፣ . This clause, however, refers to a different subject, the Board, but it is quite probable that for this auditor, as for the other five who responded incorrectly, the complexity of the earlier part of the sentence has been allowed to conceal the essential simplicity of the structure of the main clause.

B9 የቴሌኮሙኒኬሽን ቦርድ ሥራው እንዳሻሻለ

ስለዚህ ፡ የቦርድ ፡ ባለሥልጣኖች ፤
 እንደ ፡ ሌሎቹ ፡ ማለት ፡ በሰውም ፡ ሆነ ፡ በሥራው ፡ ላይ ፡
 የሚደርሱትን ፡ በደል ፡ እንዲያሻሽሉ ፡ በጋዜጣ ፡ ሲመክሩ ፤
 ጥፋቶችን ፡ ለምን ፡ ታወቀብን ፡ በማለት ፡ እንደሚያከርፉት ፡
 ቂም ፡ በቀል ፡ በመያዝ ፡
 ስህተታቸውን ፡ ሰው ፡ በጥላቻ ፡ ዐይን ፡ እንደሚያዩት ፡ ሠራተኞች ፡ ስይሆኑ ፤
 ለሥራው ፡ ያላቸውን ፡ የመሻሻል ፡ በጎ ፡ ፈቃድ ፡ በተግባር ፡ በመግለጻቸው ፤
 « ምን ፡ ነው ፡ ሁሉም ፡ እንደ ፡ ቴሌ ፡ ቢሆን ? »
 የሚለውን ፡ ስር እስከ ፡ ለማግኘት ፡ ተቻለ ።

The Telecommunications Board improves its services

Thus the Board's officials
 like others, that is to say, whether in respect of an individual
 or his work
 when they are advised by a newspaper to remedy some failing
 crying, "Why is our error exposed", like those who grumble at it,
 and adopting an attitude of hatred
 like those who view the one who made the suggestion with a
 malignant eye, not being (like these),
 (but) revealing their desire to see the work progress by their
 labours:
 "What would it be if everyone resembled the Tele people?"
 ...it was able to obtain this tribute.

B9 (continued)

Addis Zämän, Nähase 13 1955 E.C.

Length of sentence: 45 words

The sentence structure here is flexible so that the main verb may be passive, as given originally, or active. Where a passive verb is used the translation closes

"it has been possible to obtain this tribute"
 and where an active verb is used the subject is የቦርድ ገለጻዎች፣
 "the Board's officials" and the main verb must be in concord with it. Thus if passive the verb must be singular, if active it must be plural, and semantically suited in either event.

The distribution of verbal forms offered is as follows:

ACTIVE				PASSIVE			
Simple		Compound		Simple		Compound	
Singular	Plural	Singular	Plural	Singular	Plural	Singular	Plural
ቻለ: 1	ቻሉ: 4	ቻሏል: 1	ቻለዋል: 15	ተቻለ: 1		ተቻለዋል: 4	
		ያስቻላል: 1		ስለተቻለ: } 1		ይቻላል: 1	
		አስቻሏል: 1		አስተቻለዋል: 1			
		ቻለዋል: 4					
		በቻለ: 4					
	በቀ: 2	በቅቷል: 2	በቅተዋል: 5	ተቀዋል: 1			ተቀጠለዋል: 1
	ፈለጉ: 3		ይፈልጋሉ: 4				
		ይጠጣር* 1	ይጠጣሩ: 3				
	አሰቡ: 1		ይኖሩሉ: 1				
			አቅደዋል: 1				
			የህግጋዊነት: 1				

B9 (continued)

There are 36 occurrences of forms of the verb ቻለ፡, "to be able", but only one of them the form supplied in the original. Five passive responses and 19 active responses of the ቻለ፡ verb are acceptable. Amongst the incorrect forms of this verb which were offered is the first person plural ቸለዳል፡, offered four times and በቻለ፡ ነበር፡, which belongs to the apodosis of a conditional sentence. There is one negative form, አልቻለም፡, which unmistakably indicates failure to grasp the semantic content of the sentence.

Of the other verbs supplied (ten different verbs appear, in addition to the verb ቻለ፡) the 21 active plural forms are all acceptable and probably the simple passive ተሰጥ፡ also, although the semantic suitability of this form (መጥ፡, "to be convenient") is, perhaps, open to question.

We find, then, a total of 46 acceptable responses, 24 of them using the same root as the original, and 16 incorrect responses. The sentence structure is notable for the suspension of the negation of the comparison effected in the opening phrase: እንዲ፡ ሌሎች፡, "like others" for a sequence of 23 words until the subordinated ሳይሆኑ፡, "without their being", appears.

B10 የቴሌኮሙኒኬሽን፣ በርድ፣ ሥራው፣ እንዲሁም፡

ገዢዎች፣ በስተቀር፡ በሥራው፡ ሆነ፡ በሥራተኞቹ፡ ላይ፡
 የታዩትን፡ ጉዳዮች፡ እንዲሁም፡ ለሚቀርቡለት፡ ጋዜጣዎች፡ ማሳሰቢያዎች፡
 ወዲያውኔ፡ መልስ፡ በመስጠት፤
 የጉዳዮችን፡ ሁኔታ፡ እንዲታወቅ፡ ገደረገ፡ በሷ ፤
 መሻሻል፡ የሚያስፈልጋቸውን፡ በተወሰነ፡ ጊዜ፡ በማሻሻል፤
 ለግል፡ ፍላጎት ወይም፡ ሥራተኞቹ፡ ያለ፡ አገገብ፡ ለማህሰብ፡ ሲባል፡
 ለተሰጠው፡ ጋዜጣዎች፡ ማሳሰቢያም፡
 እውነቱን፡ ፍርጥ፡ አድርጎ፡ መልስ፡ በመስጠት፤
 የሚያደርገው፡ የሥራ፡ ግሥጋሜ፡
 በርድን፡ የሚያሳድገው፡ ሆኖ፡ ተገኝቷል።

The Telecommunications Board improves its services

And besides this, whether in respect of its work or its workers,
 to the advice brought to it by newspapers for the remedying
 of deficiencies which have appeared,
 by giving a prompt answer,
 after explaining the situation underlying the deficiency
 by improving in due time those matters which require improvement,
 (but) for their own ends or in order to belittle the employees
 without a cause,
 to such advice given by the newspapers,
 by extracting the truth from it and giving an answer,
 the swift action which they take
 has been found to be that which causes the Board to develop.

B10 (continued)

Addis Zämäñ, Nāhase 13 1955 E.C.

Length of sentence: 47 words (ጸለ፡አገገብ፣ , although written as two words, is counted as only one)

The subject of the sentence, which appears near the end of this extended structure, is qualified by two infinitive clauses, and the complement, ቦርዱን፡ጥግኝሰጥው፡, "that which causes the Board to develop", while indicating a measure of synthesis, is concise. Since the copula is only a quasi-verbal form its gerund is supplied by the verb ሆነ፡ .

Of the 64 responses 57 employed the verb አገኘ፡ , 54 of these being passive forms. The six plural (and therefore incorrect) forms were all in the compound imperfect ተገኝተዋል፡ , and are almost certainly to be attributed to poor spelling. There was, however one plural active verb, a simple perfect, and this could not be explained as a spelling error. However the gerund does not necessarily require the following main verb to be in agreement with it. With an active plural main verb the subject of the copula sentence is different from that of the main clause, an unspecified third person plural.

The negative form አልተገኘም፡ was offered twice. While this form is acceptable structurally it indicates the failure of the auditors to comprehend the sentence meaning, which clearly demands a main verb in the affirmative.

B10 (continued)

The distribution of the principal forms offered was as follows:

SIMPLE VERBS		COMPOUND VERBS	
Singular	Plural	Singular	Plural
ተገኘ: 7		ተገኝቷል: 38	ተገኝቱዋል: 6
አልተገኘም: 2		ይገኛል: 1	
አገኘ: 1		አገኝቶታል: 1	
	አገኙት: 1		
ታያቸው: 1		ታይቷል: 1	

In addition to the forms using the verbs listed above there were three attempts to re-structure the end of the sentence, two turning ሆኖ: into a compound: ሆኗል: and ሆኖ: ነበር: , and one simply re-writing ሆኖ: as ሆነ: . The one exception to the general pattern of response was የሚገመት: ነው:, again using a passive verb and producing an acceptable conclusion.

The transparency of this sentence, as evidenced in this test, is due to the construction which places the expanded modifiers before the subject of the copula sentence, leaving the subject itself, the complement and the copula in proximity the one to the other. That there was but one blank and a very high level of correct response must be attributed to this simple end-structure.

B11 ስለ፡ ማኅበራዊ ፡ ክሮ ፡

በፍጥረት ፡ ምርመራ ፡ ከፍ ፡ ያለ ፡ ዕውቀት ፡ ያለቸው ፡ ሊቋውንት ፡ እንደሚያስገናዝቡት ፤

በማኅበራዊ ፡ ክሮ ፡ ግሊና ፡ በዚህ ፡ አካባቢ ፡ ያለው ፡

የመተዳደር ፡ ተግባር ፡

ይንደሰ ፡ ዛንድ ፡ የማይገባው ፡ መሆኑ ፡

በግልጽ ፡ እንዲታወቅ ፡ ተጀርዳል ።

Concerning community living

Scholars who are highly qualified in the field of social studies, as they explain it, in the sphere of community life and the work of communal living, in this place that it ought not to be hindered, it has been ensured that it be clearly understood.

Addis Zämäñ, Paḡume 4 1955 E.C.

Length of sentence: 23 words

Comments: The verb of the main clause is a passive but a deceptive apparent subject is presented in the first subordinated clause. As a consequence most auditors appear to have taken the plural ሊቋውንት, "scholars", as the subject of the main clause.

B11 (continued)

The structure of the sentence is complicated by the litotes in the subordinate clause:

የመተዳደር : ተግባር : ይጓዳል : ዘንድ : የማይገባው : መሆኑ :

"the work of communal living that it be hindered that it ought not to be".

However just over one half of the responses employed the same verb as appeared in the original text. Of these, however, only three were in precisely the original form, six others were passive forms and the remainder active, twenty of them in the plural.

ACTIVE		PASSIVE	
Singular	Plural	Singular	Plural
አደረገ: 2	አደረጉ: 11	ተደረገ: 4	
አድርገዋል: 2	አድርገዋል: 8	ተደርጓል: 3	ተደርገዋል: 2
	አስተደረጉ: 1		
ያገላግላል: 8	ይፈልጋሉ: 2	ተፈልጓል: 1	
	አሳሰቡ: 1		
አሳሰቧል: 2	አሳሰበዋል: 1		
ያገለግላል: 1	ይጻፍሉ: 1	ተነግሯል: * 1	
	ጥረዋል: 1	ተበራርቷል: 1	
	አስገንዝበዋል: 2		
	ጠይቀዋል: 1		
	ገልጸዋል: 1		

B11 (continued)

In addition to the forms tabulated there were five occurrences of the copula ነው፣, the binary ለማድረግ፣ ነው፣ and the subordinated form እንዲያስገናዝቡ፣, none of these being acceptable.

As was the case in sentence B9 it is possible to permit either a singular passive form or a plural active form as main verb, provided that collocational requirements are satisfied. The two passive plural forms are most probably to be attributed to spelling errors: with less probability the two occurrences of the singular አድርጎታል፣ may similarly be explained. The impersonal ያስፈልጋል፣ is acceptable leaving a total of 12 incorrect responses with a possibility of an additional four errors here ascribed to spelling.

What is interesting here is that although the original sentence used a passive verb only 12 out of 64 auditors supplied a passive verb. Referring to sentence B9 we find again that, although the verb in the original sentence was passive, only ten auditors attempted to supply a passive verb. Only in B10, where the end structure of the sentence is markedly transparent, do we find an overwhelming majority using passive forms to complete the sentence, 56 out of 64 responses.

B12 የሰቅለት : ቅጣት : የተፈጸመበት : ወንጀለኛ :

ነፍሱ : ወይ : የተባለ : ወንጀለኛ ፤
 ተፈራ : ጅቢር : የተባለውን : ሰላማዊ : ሰው :
 በሚያሰቅቅ : ሁኔታ : ገፍሎት : ስለነበር ፤
 በተገኘው : ማሰረጃ : መሠረት :
 በሰቅለት : አንዲቀጣ : ስለተፈረደበት ፤
 ጉዳዩ : ዙፋን : ጉሎት : ቀርቦ : ስለተወሰነ ፤
 ወንጀሉን : በሠራበት : መቂ : በተባለው : አገር ፥
 ታኅሣሥ : ፲፮ : ቀን : ፶፮ : ዓ.ም. በ፹ : ሰዓት :
 በገበያ : መካከል :
 የሰቅለት : ቅጣት : ተፈጽሞበታል።

Criminal hanged

A criminal named Näfso Wäy,
 a harmless man named Täfärra Döbir
 since he killed him in a frightful manner,
 on the basis of the evidence that was obtained,
 since it was decreed that he be punished by hanging,
 since the matter was brought before the High Court and confirmed,
 in the place called Mäki, where he committed the crime,
 at 8 o'clock on Tahsas 16 1956 E.C.
 in the centre of the market,
 the sentence of hanging has been carried out on him.

Addis Zämän , Tahsas 20 1956 E.C.

Length of sentence: 44 words

B12 (continued)

The sentence is linear, being constructed homogeneously with three clauses subordinated by ስለ-፣ "because". It was selected for testing because of this linearity and to examine two other features: the extent to which auditors selected a passive verb and the extent to which epexegetical inclusion of a pronominal suffix occurred.

There were 63 responses to this sentence, 61 employing a passive verb. The two active forms were አገኘ፣ , "he received" and ደረሰበታል፣ , "it descended on him", the first taking the subject of the first subordinated clause as subject also of the main clause, and the second presenting one of the very few active verbs which could be associated with the subject of the main clause.

The distribution of the various forms offered is tabulated so as to display the extent to which the pronominal suffix was offered.

GROUP ONE: Forms capable of taking infixes -በ-

Simple perfect	ተፈጸመ፡ 3	3
Simple perfect + -በ-	ተፈጸመበት፡ 13 ተፈረደበት፡ 12 ተደረገበት፡ 1	26
Compound gerund	ተፈጽሞአል፡ 1	1
Compound gerund + -በ-	ተፈጽሞበታል፡ 7 ተፈረደበታል፡ 5 ደረሰበታል፡ 1	13

B12 (continued)

GROUP TWO: Forms not capable of taking infixes -በ -

Simple perfect	ተቀበለ: 7 ተሰጠው: 2 ተሰቀለ: 1 አገኘ: 1	11
Compound gerund	ተቀብሏል: 8 ተሰጥቶታል: 1	9

The tables show that in those forms capable of taking the infixes 39 out of 43 did so, thus paralleling the original construction which demonstrates the delicate balancing of clauses, for the infixes occur also in the second subordinated clause.

The evident transparency of this structure, which is apparently not impaired by the passive verb, is evidenced by the fact that there was only one unacceptable response, ተሰቀለ: , "he was hanged", and that, in spite of the comparative complexity of the original main verb, seven of the auditors offered precisely that form.

B13 የሚዘጋጁ ጌታ ጋላራሃት

ከዚያም ፡ ለከተማው ፡ ሕዝብ ፡ የሚያስፈልጉት ፡ ክሊኒኮች ፡
 ትምህርት ፡ ቤቶች ፡ የውሀ ፡ ማደጊያዎች ፡ ቤተ ፡ ክርስቲያኖች ፡
 መስጊዳት ፡ ሆቴሎች ፡ መጠኖ ፡ ቤቶች ፡
 ተወሰኑ ፡ መቋቋሚያ ፡ መፈቀድም ፡ አለባቸው ፡ እንጂ ፤
 የከተማው ፡ ሕዝብ ፡ በሙሉ ፡ ደር ፡ እስከ ፡ ደር ፡
 አሰጠ ፡ ቸርቻሪ ፡ ሆኖ ፡
 የአካባቢውን ፡ ክብደታዎች ፡ ጋሜዎች ፡ ከእናት ፡ አባታቸው ፡ እያስቸፈተ ፤
 ከትዳራቸው ፡ እያፈናቀለ ፤
 የየትምህርት ፡ ቤቱን ፡ ወጣት ፡ በሙዚቃ ፡ እያባበለ ፤
 የአሰጠ ፡ ማጣጣሚያ ፡ ሲያደርጋቸው ፡ መመልከት ፡
 የውድቀት ፡ ምልክት ፡ መሆኑን ፡ መዘንጋት ፡ የለባቸውም ።

The responsibility of the Municipality

Moreover those things which are necessary for the people of the
 city: clinics, schools, water points, churches, mosques,
 hotels, drink-shops

they should establish and permit in due proportion but
 the entire population of the city, from one end to the other,
 having become purveyors of alcohol,

while causing the young women and fellows of the place to
 forsake their parents,

and attracting them away from their responsibilities,
 and while enticing young people of the schools with music,
 recognizing that they turn them into advertisements for alcohol,
 they must not forget that this is a sign of debasement.

Addis Zämän, Hedar 16 1956 E.C.

Length of sentence: 50 words

B13 (continued)

Three groups of people are mentioned in this sentence, the distinction between them being not always very clear. The three groups are the Municipal authorities, the people of the city and the young people who are being enticed. The sentence closes with a typical litotes ለማሳዘን ለማለት፣ "to neglect they ought not to". It was anticipated that the infinitive would function as a signal to the auditor that a verb in the negative must be supplied. The verb ዘላጋገ፣ "to neglect, ignore" is interesting in that where it occurs alone it is almost invariably in the negative but in the binary construction such as we have here the verb in the positive is followed by a negative.

The expectation that the signal would prove effective was realised; there was only one verb in the positive, አለብን፣ "we ought to" which fails in concord as well as semantically. There were 63 negative forms and these must now be considered with particular reference to the employment of the infix preposition. Three pronominal suffixes were used, the third person masculine singular, the 1st person plural and the third person plural. It was this last form which was required, being signalled by contrastive አለባቸው፣ አንቺ፣ "they ought to, but", which, however, is separated from the main verb by a complex sequence of 29 words. Here again, then, suspense is seen as the feature of Amharic sentence structure which inhibits comprehension.

B13 (continued)

The verbal forms offered are tabulated:

3rd masc.sing. suffix	1st plural suffix	3rd plural suffix
የለበትም: 21 አይገባውም: 3	የለብንም: 17 አይገባንም: 4 ክፍሰረዕግንም: 1 አለብን: 1 (አንዛነጋም: 1)	የለባቸውም: 2 አይገባቸውም: 1

There were, in addition, eleven forms which used no pronominal suffix and one blank response. Thus there are 48 incorrect forms here and only three which correctly associate the marker አንቺ: with the main verb. This sentence is a very clear indication of the effect of suspense, for the sequence አለባቸው: አንቺ: and መዘንጋት: የለባቸውም: should be transparent¹ when in a less extended environment.

¹ But see the comments on this construction in chapter seven, p. 284 below.

Set C

The sentences of Set C were presented to the auditors without the closing phrase, which they were expected to provide. There are thirteen sentences in this Set.

C1 መሰናበት :

ያገር : ግዛት : ሚኒስቴር :

የሠራተኛ : ማስተዳደሪያ : የሒሳብ : ክፍል : ዋና : ደራጃተኛ : የሰራተኛ :

አድ : መከራከር : ወርቅ :

ወደ : ሌላ : የሥራ : ክፍል : ስለተሰጠ ፤

የሥራ : ጓደኛዎቹ :

ሰዓት : ፳፯ : ቀን : ፲፱፻፶፮ : ዓ.ም.

በገናኝ : ሆቴል :

የመሰናበት :

(ግብዣ : እድርገው ላይ ተደርጋል ።)

Farewell

Of the Ministry of the Interior

he who was Director of Personnel and Head of the Finance Department

Ato Mäkkuriya Wärku

since he has been transferred to another department

his associates

(on) Hamle 27th 1955

at the Gännät Hotel

a farewell (banquet they have given for him)

Addis Zämän, Nähase 2 1955 E.C.

Length of sentence: 33(+ 2 to be supplied) words

C1 (continued)

The sentence is notably transparent in structure, demonstrating an extended subject of 13 words in the subordinate clause but with the uninterrupted sequence of subject, adverbial phrase of time, adverbial phrase of place, object, verb. The break in the structure was effected after the adjectival form የመሰናበቻ፡ , "farewell", signalling a nominal to precede the main verb.

The transparency of the structure is evidenced by the test results; only one student failed to supply a nominal although six others supplied a passive verb leaving a pendent nominative. There were 64 examples offering the nominal ግብዣ፡ , "feast" (variously spelled) and one student offered the nominal ቃል፡ , "word", making it a farewell speech instead of a farewell dinner.

Considering the verbal forms it is remarkable that the verb አደረገ፡ , "to do", in various forms, appeared 65 times, the one alternative verb offered being ገብዘዋል፡ , "they have fêted", the verb obviously attracted by the nominal. The distribution of the various verbal forms follows:

<u>Simple verbal forms</u>	<u>Compound verbal forms</u>
አደረገ፡/አደረገላቸው፡ 42	አድርገውላቸዋል፡ 9
ተደረገላቸው፡ 3	ተደርገውላቸዋል፡ 3
	አድርገዋል፡ 2
	ያደርገውላቸዋል፡ 1
	አድርገውላቸው፡ ነበር፡ 4
	አድርገው፡ ነበር፡ 1
45	20

C1 (continued)

It is noticeable that, although the main verb of the original is a compound form, the auditors indicated a decided preference for the simple perfect form. It appears likely that the infix preposition-ል- is responsible for this. The construction with the simple perfect, አደረገላቸው፣ "they made for him" is not particularly difficult but the construction with the compound verb is more difficult.¹ Thus 31 auditors supplied the pronominal object suffix with the simple perfect, but only 9 attempted to supply it with the compound verb. Fifty two of the students demonstrated their undoubted grasp of the overall sentence structure by supplying both a suited nominal and a suited verb together with the pronominal suffix.

¹ More difficult to construct, that is.

02 መሰናበባት :

ያገር : ግዛት : ሚኒስቴር : ያስተዳድር : ምክትል : ሚኒስትር :
 ክቡር : አቶ : አሰፋ : ገብረ : ማርያም ፥
 ጋባዞች : በሆኑት : ያገር : ግዛት : ሚኒስቴር : ገልጸኞችና :
 በሌሎቹ : ስም :

ለተሰናበቱ : የሥራ : ጊዜያት :
 ተገቢ : የሆነውን : የመሰናበቻ : ቃል : የሚገልጽ :
 የሕዝብ : አገልጋይነት : የሆኑ : የመንግሥት : ሠራተኞች :
 ሊኖራቸው : ሰለሚገገው : የመንፈሰና : የቅጋት : አቋቋም :
 ጠቃሚ : ምክንያት : ያሉበት : (ንግግር : አገልግሎት ::)

Farewell

The Vice-minister for Administration of the Ministry of the Interior,
 His Excellency Ato Assäfa Gäbrä-Maryam,
 in his own name and that of the employees of the Ministry of
 the Interior who were guests,
 to the colleague who was being farewelled,
 that which revealed (Amharic "reveals") an appropriate word of
 farewell and
 (for) those Government employees who are public servants
 that attitude of diligence and that spirit which they should
 have,
 that which contained many helpful suggestions,
 (speech he has made)

Addis Zämän, Nähase 2 1955 E.C.

Length of sentence: 40 words, plus 2 to be provided

C2 (continued)

In this sentence we note the feature of expansion: the subject of the main clause is expanded to 11 words, the adverbial phrase to 8 words and the word ኅግግር፣ "speech", is preceded by a sequence of 18 words involving two co-ordinated relative clauses as modifier. While the sentence is unmistakably more complex than C1 it did not prove to be unduly opaque; of the 55 auditors who supplied an acceptable verbal form only one failed to provide the nominal signalled by the modifier ያሉበት፣ "that which contained them", although a further six auditors failed both to provide a suitable nominal and to supply an acceptable verb.

The form ሃሳባቸውን፡ገለጹ፣ "he revealed his idea", indicates only a superficial perception of the sentence structure, overlooking the signal of the modifier and pre-supposing the provision of some form of the verb አለ፣ "to say". The unexpected suggestion ሰዎች፡ነበሩ፣ "people they were", suggests an undue concern with the superficial singular/plural ambivalence of ያሉበት፣ and this has led to a twist in interpretation by which the guests have become the subject of the main clause leaving the real subject as a pendent nominative. There appears to be no explanation for the suggestions አስችለዋል፣ "they became able", and ያስፈልገዋል፣ "he ought to". The binary ዛጋጅ፡ይገባል፣ apparently treats the relative ያሉበት as a simple imperfect after the pattern ይህጅ፡ዛጋጅ፣ , but fails to be meaningful. Finally መሆኑን፡ያስቀመጠልኝ፣ "it reveals that it is", leaves the modifier without a head.

03 የፖሊንድ ፕሬዚዳንት ጉባዔ ለጉባዔ ሲገቡ፡

በአፍሪካ ፣ አህጉር ፣ ውስጥ ፣ ጠቃሚ ፣ ተግባር ፣ በምትፈጽሙት ፡

በመላው ፣ ላለም ፣ ለመታወቅ ፣ በቻለችው ፡

በኢትዮጵያ ፣ ምድር ፣ የሚደረጉት ፣ ጉባዔች ፡

ወደ ፣ መፈጸሚያው ፣ የሚቃረብ ፣ መሆኑን ፣ ፕሬዚዳንቱ ፣ በመጥቀስ ፤

የአሁኑ ፣ ጉባዔታቸው ፣ ለቆየው ፣ የሁለቱ ፣ አገሮች ፣ ግንኙነት ፡

ፍሬ አማ ፣ ውጤት ፣ እንደሚያስገኝና ፡

የሁለቱን ፣ አገሮች ፣ ሕዝቦች ፣ ወደጅነት ፣ መሰረት ፣ እንደሚያጠብቀው ፡

ያላቸውን ፡

(እምነት ፣ አስገንዝቦ።)

The President of Poland visits Ethiopia

In that (land) which discharges such an important task,

amongst the countries of Africa, even,

that (land) which has been able to achieve fame throughout the world,
the land of Ethiopia, the present tour of which

recalling that it is now drawing to its close, the President (said)
his present visit, for the long standing association between

the two countries,

that it would bring fruitful results and

that it would strengthen the foundation of the friendship between
the peoples of the two countries,

that which he had (belief he explained)

Addis Zämän, Hedär 23 1958 E.C.

Length of sentence: 35 words plus 2 to be provided

C3 (continued)

The subject of the first subordinate clause is the same as that of the main clause, and, in a sentence of this length, this would normally mean that the subject of the main verb is separated from the verb itself by, perhaps, 30 words. The involved structure of the opening clause, however, leaves the subject to be expressed in its penultimate word, so that only 18 words separate it from the main verb. As a consequence only 3 out of 64 verbal forms offered were unacceptable: መሆናቸውን: ታውቋል:, "it is known that they are", and መሆኑን: ያስገነዝባል: , "it is recalled that he is", in both of which not only is the verbal form incorrect but the infinitives leave the relative pendent. The suggestion የሥራ: ሁኔታ: ይገልጻል: , "he reveals the mode of work", even though the nominal phrase is just possibly reconcilable to the preceding structure, still fails in that the compound imperfect breaks concord with the subject.

Although the verbal form of የወዳጅነት: ቃል: ቀናገረ: , "he gave a friendly address", is acceptable, the nominal phrase leaves the relative ያላቸውን: , "that which he had", out of consideration. In addition to these four incorrect forms there was one blank response, but five failures out of 65 responses suggests a basically transparent structure.

The nominals favoured by the auditors were ግዥነት: , "desire", 16 times, አስተያየት: , "point of view", 14 times and the rather colourless ሃሳብ: , "idea", 19 times.

C4 የፖላንድ ፕሬዚዳንት ሲቪል ማህተም ሲገባ፡

ክቡር ፡ ሚስተር ፡ ኤድዋርድ ፡ ኦሐብ ፡

የፖላንድ ፡ ሕዝባዊ ፡ ሪፑብሊክ ፡ ፕሬዚዳንት ፡

ክብርት ፡ ማዳም ፡ ሮዛሊያ ፡ ኦሐብ ፡

በኢትዮጵያ ፡ የሚያደርጉትን ፡ ጉዞች ፡ በመቀጠል ፤

ትኩረት ፡ አዋሽ ፡ በመሠረት ፡ ላይ ፡ የሚገኘውን ፡

የመልካሳን ፡ ሠለተኛና ፡ ሦስተኛ ፡ የውሀ ፡ ጣቢያና ፡

የኤሌክትሪክ ፡ ኃይል ፡ ጣቢያውንና ፡

የወንጂን ፡ የስፕራት ፡

(ፋብሪካ ፡ ገብተዋል።)

The President of Poland visits Ethiopia

His Excellency Mr Edward Ohab,

President of the People's Republic of Poland and

Her Excellency Madame Rosalie Ohab,

continuing the visit they are making to Ethiopia,
yesterday, that which is being constructed at Awash,

the numbers two and three Mälkasa dams and

the electricity power station and

the Wändi sugar (factory they visited)

Addis Zämän, Hedar 23 1958 E.C.

Length of sentence: 31 words, plus two to be provided

C4 (continued)

The sentence structure here is essentially linear, the subject of the subordinate clause and that of the main clause is the same: the expanded nominal phrase which extends to twelve words. The direct object of the main verb, which is broken for the purpose of this test at its penultimate word, consists of three co-ordinated nominal phrases. Auditors were required to complete the third nominal phrase and to provide the main verb.

Out of 65 responses a total of nine failed to provide a nominal to follow the modifier የስኅር: , "of sugar", four from the listening groups and five from the reading groups. This suggests that there is no advantage of the one method of auditing over the other in the case of this comparatively brief and uncomplicated sentence.

07/7
In fact, so transparent was the structure that 64 out of 65 auditors used the same verb ገብኛ: , "to visit" although, of course, various forms of the verb were offered. The only exception was ተመለከቱ: , "they saw". There were two occurrences of the infinitive መገብኛታቸው: ታውቋል: , "it is known that they visited", and በመገብኛት: ላይ: ነበሩ: , "they were in the process of visiting". The first of these, quite properly, leaves the subject of the subordinate clause out of the main clause, which then takes a passive verb. There were, in fact, no verbal forms offered which were not acceptable.

05 የደንገጃ ጥያቄ :

ንብረት ለውጥ : ገደብ : በተገኘው ርኅበት :

ንብረት ለውጥ : በሚገኙት ምንጮች : እየተረዳን :

ብዙ : ሰብስቦ : እናመራቸዋለን : የተገኘው : መሬቶቻችን :

ድርቀት : ስለተገኘው ርኅበት : በረሃም : ስለሆነ፤

በቂ : ምርት : ስናገኝ : ገለጻለን ፤

ንብረት ለውጥ : የግጥም : ሣርፍ : ውሀ ፣ ጠልፎ : ስለሚገኘው ፤

ንብረት ለውጥ : የግጥም : (ችግር : ይገኛል?)

The destruction of the forests

By the moisture which is obtained from the mountain and the forest,
while being aided by the springs which are found within them
our land, from which we used to obtain so much pasture,
since it has become dry and has turned into a desert,

since we cannot obtain sufficient pasturage
and since it is pasturage, water and the dew which bring on
the cattle,

than this what worse (problem can be found?)

Addis Zāmān, Nāhase 18 1955 E.C.

Length of sentence: 30 words plus 2 to be provided

C5 (continued)

Although this sentence is one word shorter than C4 its complex structure contrasts strikingly with the linearity of structure and transparency of form of the earlier sentence. Attention is drawn to the relative phrases which qualify the nominals at the beginning of the sentence:

ከተረፈውና : ከደኑ : በተገኘው : ርኅበት :

"by the moisture which is obtained from the mountain and the forest"

ከውስጡም : በሚገኙት : ምንጮች :

"by the springs which are found within them"

ብዙ : ሰብሶ : እናመረቅበት : የነበረው : መሬታችን :

"our land from which we used to obtain so much pasture".

Note also the co-ordination of clauses

ድርቅት : ስለተሰማውና : በረሃም : ሲለሆነ :

"since it has become dry and since it has become a desert" and the use of the subordinated articular infinitive: ገለመቻለችን : , "since we are not able". There are seven co-ordinating conjunctions to add complexity to the succession of subordinated clauses.

The construction of the penultimate clause caused some difficulty to a number of Ethiopians with whom I discussed the sentence, a difficulty which they eventually traced to the placing of the direct object, clearly marked by suffixed -ን : , in extra-position before the subject.

C5 (continued)

The sentence proved to be outstandingly opaque to comprehension. In fact 40% of the 65 responses were not acceptable, primarily because the relative የባሰ፣ , "that which is worse", which signalled the semantic content of the closing phrase, was not properly interpreted. A secondary cause of difficulty was the interrogative ምን፣ , "what?", immediately preceding the break in the sentence, which perhaps demanded a higher level of intuitive interpretation for the production of a suitable conclusion than would an adjective. One auditor, indeed, made the difficulty explicit by offering ከዚህ የባሰ፣ ጉዳት የለም፣ , "there is no greater disaster than this", deliberately omitting the interrogative particle.

But even the figure of 40% failure is probably too small, for suggestions such as (ምን) ለማገዝ፣ ለምን፣ , "(what) can we do?", probably do not represent "what can we do worse than this?", but an attempt to write "what should we do about this?", neglecting the signal of the relative.

One family of incorrect responses employed the negative verb:

ረሀብ፣ አያገኛቸውም፣	they will not suffer hunger
ቸግር፣ ሊደርስ፣ አይችልም፣	suffering cannot overtake (us)
ሊገኝ፣ አይቻልም፣	it is not possible to find
ጉዳት፣ የለም፣	there is no tragedy
ዕርዳታ፣ አይገኝም፣	no help can be found
መኖሪያ፣ ነገር የለም፣	there is no evil thing

and all of these responses neglect the interrogative.

C5 (continued)

The failure of auditors to perceive the signal of the relative led to constructions such as **ግን፡ግድረገ፡አለብን፡**, "what should we do?", and **ግን፡ዓይነት፡መሬት፡ይገኛል፡** , "what kind of land shall we get?".

A small group chose to treat the adjective as an interrogative pronoun, and offered acceptable forms such as **ይመጣብናል፡** , "what worse could befall us?", but several suggestions simply indicated the confusion of the auditors: **ገዳቶ፡እንደሚያገኝን፡ግወቅ፡** **አለብን፡** , "we should realise that we are going to have trouble", and **አደጋ፡እንዳይደርሰብን፡** , "so that no accident befall us".

There appears to be no reason to assign the high failure rate to anything other than the complex structure of the sentence. Its subject matter would certainly fall well within the range of interests of the students most of whose parents and neighbours would gain their living from a smallholding.

06 የማርጋሪታ ሐይቅ፡

በሐይቅ፡ ውስጥ፡ ብዙ፡ ባሕር፡ ሠራዊቶች፡ ተሰብስበው፡ ዝመሰኑም፡ በላይ፤
 በመካከለኛ፡ ግምት፡ እስከ፡ 50 ፡ ኪሎ ፡ ግራም ፡ የሚመዝኑ ፡ ዓሣዎች ፡
 በብዛት ፡ ስለሚገኙበት፤

ይህንኑ ፡ እያሸገ ፡

ለገበያ ፡ የሚያቀርብ ፡ ኢንዱስትሪ ፡ ቢቋቋምበት፤

ገፍ ፡ ያለ ፡ ጥቅም ፡ የሚያስገኝ ፡ ዝመሰኑም ፡ ሌላ፤

ለብዙ ፡ ሠራተኞች ፡ ሥራ ፡ ሊያስገኝ ፡ የሚችል ፡ ስለሆነ፤

(ሊታሰብበት ፡ ያስፈልጋል።)

Lake Margherita

In addition to there being many types of aquatic life assembled
 in the lake,
 since there are many fish found in it weighing on average an
 estimated 50 kilogrammes,
 taking advantage of this,
 if an industry were built on it to bring this to the market,
 not only would this produce great profit,
 since it could (also) produce work for many people
 (this ought to be considered)

Addis Zāmān, Təḵəmt 17 1956 E.C.

Length of sentence: 35 words plus 2 to be provided

C6 (continued)

The break in the sentence occurs at the close of a subordinate clause, leaving the auditor to supply the entire main clause. The structure of the subordinated conditional sequence is somewhat complex since the apodosis contains two subordinated clauses: ".....if the industry is established
not only would it be profitable
also it would provide much work".

The problem here was that the subordinated verb was an inadequate guide to structure to follow, and the intellectual effort involved in constructing a complete and collocationally acceptable clause proved too much for more than one half of the auditors. Some 27 out of the 65 responses provided some variant of the general pattern ሲታሰብበት፡ መልካም፡ ነው፡ , "it would be good if thought were given to it", in which the copula is associated with a subordinating conjunction and the simple imperfect.

That the auditors found difficulty in projecting the structure of this sentence is indicated by the overall lack of pattern in the responses:

ለብዙ ሰዎች፡ ሥራ፡ የሚያስገኝ፡ ስለሆነ፡

"because it will provide work for many people"

ብዙ ሕዝብ ላይ የሚገኝ፡

"many people are found in it" (with no apparent antecedent for the pronoun),

C6 (continued)

ሊገባቸው ይገባል፡፡ ማለት፡፡

"we ought to be able to profit from them"?

ለሕዝቡ፡ ጥቅም፡ ሊሰጥ፡ ይችላል፡ ስለመሆኑም፡፡

"there can be no doubt that the people can profit from it", in which the imperfect of the verb ቻለ፡, "to be able" is followed by an auxiliary verb instead of being subordinated as the proposed construction requires.

The structural difficulty is also reflected by the apparent opacity of the subject of the main clause. A common alternative to "the establishment of the industry" as subject was ሕዝብ፡, "the people":

መሥሪታት ገንብቻለት፡፡

"they ought to get busy"

ለጥቅም፡ ስንደረግ፡ ማድረግ፡ ያስፈልጋል፡፡

"it is necessary to ensure that they are cared for"

ሠራተኞቹም፡ ወደ፡ ሐይቁ፡ ሄደው፡ ሠራተው፡ ለመስጠት፡ ይችላሉ፡፡

"when the workers have gone to the lake they can start work".

This sentence, with its intricate interchange of subordinating particles, in the absence of firm signalling of semantic content to follow, proved to be significantly opaque to comprehension, and to result in a more variegated pattern of responses than any other.

C7 መረዳዳት :

የየጠቅላይ : ግዛቶችን : ሀብት :

ማረን ÷ ቅጥን ÷ ሥጋውን ÷ አትክልቶችን : አዝርዳቶችን ÷

ይህንን : የመሰለውን : ሁሉ :

በጋዜጣና : በማሰታወቂያ : ቢሳገር ፤

አንድ : ጠቅላይ : ግዛት : ጥጋብ : ሲሆን ፤

አንድ : ሲሰጥ : ወይም : ሲቸገር ፤

ለመረዳዳት : የሚቻለበትን : ዘዴ :

በጋዜጣና : በማሰታወቂያ : ለሕዝብ : ምክር : ቢሰጥ ፤

ሕዝቡ : ነዚህ : ቀደም : እንደሚረዳዳው : ሁሉ :

ለተቸገረው : ሀገር : (ዕርዳታ : ሊያደርግ : ይቻላል።)

Helping one another

The wealth of each of the provinces

the honey, butter, meat, vegetables, grain

and all such produce ,

if it is announced in newspaper or proclamation,

when one province has a glut

(and) one is hungry or in difficulty,

a way of assisting one another

if advice is given to the people in newspaper or proclamation,

just as hitherto the people have helped one another,

to the district which is in difficulty

(they (Amharic "it") can give help)

Addis Zämän, Nāhase 18 1955

Length of sentence: 38 words plus 3 to be provided

C7 (continued)

We have here a sentence of the open conditional type, with two conditional clauses in the protasis, one of which in its turn includes three subordinated verbal forms. The apodosis is to be completed, a prepositional phrase signalling an object, in addition to the required verbal structure. From a total of 66 responses 59 used some form of the verb ረዳ፣ "to help", indicating a general perception of the semantic content of the sentence, but the open conditional sentence, which lacks the formalised structure and distinctive marker (compare ኖሮ፣) of the closed conditional, proved to be difficult to comprehend structurally.

The responses are here divided into seven categories:

a. Acceptable responses:

እርዳታ፡ ሊያደርግላቸው ይቻላል፡	"it will be possible to give it aid"
ርዳታ፡ ሊሰጥ፡ ይቻላል፡	"it will be possible to give aid"
ርዳታ፡ ያደርጋል፡	"it will give aid"
ርዳታ፡ ያደርግላታል፡	"it will give aid to it"
እርዳታውን፡ ይሰጣል፡	"it will give its assistance"
ርዳታ፡ መሰጠቱ፡ አይመረጠርም፡	"undoubtedly it will give aid"
ርዳታ፡ ለመሰጠት፡ ይቻላል፡	"it can give aid"
ርዳታውን፡ ስለመሰጠት፡ አያቋርጥም፡	"it will not refrain from giving aid"

b. Responses assuming a closed conditional sentence:

እርዳታውን፡ ይሰጥ፡ ነበር፡ (3)	"it would have given aid"
ይረዳ፡ ነበር፡ (10)	"it would have helped"
ገንዘብ፡ ያወጣ፡ ነበር፡	"it would have sent money"

C7 (continued)

- የአርዳታ፡ እጅን፡ ይዘረጋ፡ ነበር፡ "it would have held out its hand in aid"
 ሊረዳ፡ ይችላል፡ ነበር፡ "it would have been able to help"
 በረዳ፡ ነበር፡ "it would have helped"
 እርዳታ፡ ያደርግ፡ ነበር፡ "it would have given help"
 እርዳታውን፡ በይበልጥ፡ ይቀጥል፡ ነበር፡ "it would have sent even more aid".

There are 19 of these responses, all assuming a protasis of the form ቢነገር፡ የሮ፡ or በተነገረ፡ .

c. Responses indicating a failure of concord:

- መርዳት፡ አለብን፡ ብሏል፡ (2) "he said that we ought to help"
 ብንረዳ፡ የሚከፋ፡ አይደለም፡ "if we help it can do no harm"
 ለተቸገረው፡ አጋኝ፡ ይሆን፡ ዘንድ፡ "we have meant to be a help to the troubled"
 አሰብኛል፡

These four forms involve the 1st person plural and the forms

- እርዳታ፡ አድርገዋል፡ "they have given assistance" and
 መርዳት፡ ይኖርባቸዋል፡ "they ought to give assistance"

use the third person plural instead of the third person singular.

d. Responses which assume ለ-፡ objective

- ሊረዳ፡ ይችላል፡ (6) "it can help"
 ሊረዳ፡ ይችላል፡ ነበር፡ (2) "it could help"
 ቢረዳ፡ ጥሩ፡ ነው፡ "it would be good if it helped"
 መርዳት፡ ያስፈልጋል፡ (3) "it is necessary to help"
 መርዳት፡ አለበት፡ (2) "it ought to help"
 መርዳት፡ ይገባዋል፡ "it ought to help"
 ሊለገሥ፡ ይችላል፡ "it can assist"
 መርዳት፡ ይኖርበታል፡ "it ought to help"

C7 (continued)

ለመርዳት : በቀላሉ : ይቻላል : "it could easily help"

ማካፈል : ይገባዋል : "it ought to share"

There are 19 examples of this interpretation of the sentence structure.

e. Responses assuming a direct speech structure:

ሃሳብ : አቅረዙ : "he offered this idea"

መርዳቱን : አስታወቁ : "he explained its help"

አንዲረዳ : ተሰማማ : "it agreed to assist"

በተቻለ : መጠን : መርዳት : "they indicated the necessity of helping
ማስፈላገቱን : ገለጹ : as far as possible"

f. Responses involving the copula:

እርዳታ : ቢያደርግ : መልካም : ነው : "it is good if help is given"

ቢረዳ : ግሩ : ነው : "it is good if he helps"

መርዳት : ነው : "it is to aid"

እንደሚረዳዳ : የተረጋገጠ : ነው : "it is well known that they help each other"

ርዳታ : ማስፈላገቱን : ነው : "it is necessary that he help"

g. Miscellaneous responses:

ረዳ : "he helped"

ይረዳል : "it helps"

መረዳኛ : ይሆናል : "it will be a help"

የሚያስፈልገው : ነገር : ሁሉ : "that they should give everything needed"

አህል : አንዲሆን : አሳሳቢ : "he suggested that grain should be given"

From the total of 66 responses only 8 are entirely free from objection, although the gross semantic content has been correctly detected. This type of sentence would appear to be difficult for the student to construct.

C8 የጊብራልትር ሕዝብና ምርጫው፡

የጊብራልትር ፡ የታክሲ ፡ ነጂዎች ፡ የፊደት ፡ ሠራተኞችና ፡
 እንዲሁም ፡ ደግሞ ፡ የዘጠኝ ፡ ልዩ ፡ ልዩ ፡ ነፍሰ ፡ ሠራተኞች ፡
 የእርጋታ ፡ መንግሥት ፡
 እገራቸውን ፡ ትገባኛለች ፡ ሲል ፡ የጠየቀውን ፡ በመቃወም ፤
 በብሪታንያ ፡ መንግሥት ፡ እንዲተዳደሩ ፤
 ለተገበሩት ፡ መንግሥታት ፡ (አቤቱታ ፡ አቅርበዋል።)

The people of Gibraltar and their choice

The taxi drivers and street cleaners of Gibraltar and
 similarly also the employees of nine different departments,
 the Spanish Government's
 saying "Their country belongs to me" in rejecting its demand,
 that they should be ruled by the British Government,
 to the United Nations (they have brought an appeal)

Addis Zëmān, Təḳəmt 17 1956 E.C.

Length of sentence: 24 words plus 2 to be provided

In this sentence note particularly the interplay of direct
 (እገራቸውን ፡ ትገባኛለች ፡ , "the country, she belongs to me") and
 indirect (በብሪታንያ ፡ መንግሥት ፡ እንዲተዳደሩ ፡ , "that they should be ruled
 by the British Government") speech. The pleonasm of the structure
 in the first and second lines is a common device: - ና ፡ እንዲሁም ፡
 ደግሞ ፡ , "...and similarly also".

C8 (continued)

The end structure of this sentence parallels that of C7, and here 15 of the 61 auditors took ለ- as objective and 44 as locative. The other two also treated it as locative but analysed የተባበሩት መንግሥታት, "United Nations", as a modifier, supplying, quite properly ደርጅት, "Department", to complete a nominal phrase. The distribution of some of the nominal forms supplied is given here since it gives an illustration of the use of the accusative suffix. It is notable that the suffix appears once on a singular indefinite nominal:

አቤቱታ:	10	አቤቱታን:	1	አቤቱታቸውን:	2
ዎያቂ:	4	ዎያቂውን:	1	ዎያቂያቸውን:	1
ሐሳብ:	15			ሐሳባቸውን:	1
መልእክት:	1	(መልእክቶች:	1)	መልእክታቸውን:	1
ክስ:	1	ክሱን:	1		

The accusative suffix appears on 2 nominals modified by the definite suffix and on 5 nominals modified by a pronominal object suffix. It also appears, exceptionally, on the unqualified form አቤቱታን .

Examination of the proposed verbal forms suggests that the auditors have been confused by the encased clause, with its interplay of pronouns and pronominal suffixes. Some appear to have taken the subject of the subordinated clause as subject of the main clause also:

C8 (continued)

የአሲያጅ : መንግሥት :
 « አገራቸውን : ትገባኛለች : » ሲል :
 የጠየቀውን : በመቃወም :

"The Spanish Government:

'Their country(accus), she belongs to us', saying
 what he requested(accus) in rejecting..."

Here "The Government of Spain" is treated as masculine, and this might well explain the eleven masculine singular verbal forms offered: አቀረበ: six times and ቀረበ ÷ አመለገተ ÷ አስተላለፈ ÷ አቅርቧል: and ተደርዳል: once each.

The retention in the memory of some auditors of the feminine suffix of the verb ትገባኛለች: , "she belongs to us (Amharic 'me')", may explain the three feminine verbal forms supplied for the main clause: አቀረበች ÷ አስታወቀች: and አቅርቧለች: .

In this sentence only 13 words separate the subject from the main verb. This subject is clearly plural, but a measure of confusion is introduced by the masculine singular subject of the subordinate clause and the feminine singular subject of the included predicative clause. But the plural form required for the main verb is clearly attested by the subordinated plural form አንዲተደደሩ: , "that they should be governed", immediately preceding the closing prepositional phrase. That, in fact, 14 of the auditors should fail to comprehend the signals provided is a measure of the complexity of this sequence of only 26 words.

C9 ፖሊሶች፣ ዕርዳታ፣ እንዳደረጉ፡

የቆሰቢው፡ ገብርኤልን፡ በዓሳ፡ ለማክበር፡
 ወደ፡ ቁሰቢ፡ በእግር፡ በመጓዝና፡
 እንዲሁም፡ በአጋጣሚ፡ ሕመም፡ ምክንያት፡
 ድካም፡ አየተሰማቸው፡ በየመንገዱ፡ ዳር፡ የወደቁትን፡ 1143 ፡ ያህል፡ መንገደኞች፡
 የሐረርጌ ፡ ጠቅላይ፡ ግዛት፡ ፖሊስ ፡ ዋና ፡ መሥሪያ ፡ ቤት ፡ ባልደረቡ ፡
 በአንቱላንስ ፡ በማዘዋወርና ፡
 በአቅራቢያው ፡ ወደሚገኘው ፡ ክሊኒክ ፡ በመውሰድ ፡
 ገፍ ፡ ያለ ፡ ዕርዳታ ፡ ያደረጉ ፡ መሆናቸውን ፡
 ስሐረር ፡ ጠቅላይ ፡ ግዛት ፡ የፖሊስ ፡ ማሰታወቂያ ፡ ካፍሎ ፡
 (የደረሰው ፡ ሪፖርት ፡ ገልጿል።)

Police have given aid

In order to observe the feast of Gabriel at Kulbi,
 by going on foot to Kulbi and
 thus, because of sudden illness,
 becoming wearied, 1143 or so travellers who fell by the wayside,
 officers of the Harar Province main police station,
 by touring round by ambulance and
 by taking (them) to the clinic found in the area,
 that they have given significant assistance,
 from the information office of the Harar Province police
 (the report which has arrived has revealed)

Addis Zāmān, ፕጅ 2 1956 E.C.

Length of sentence: 47 words plus 3 to be provided

C9 (continued)

The sentence may conveniently be divided into two parts, from the point of view of syntactical analysis, the first part consisting of an extended sequence of qualifiers, for which the word መንገደኞች: , "travellers", is the head, and the second part, with three subordinated clauses, providing the signals of structure to follow. The essential signals are the accusative marker, suffixed to the infinitive, መሆናቸውን: , "their being", and the preposition prefixed to the nominal ገሰረ: , "Harar".

The accusative suffix indicates that a passive verb will not be acceptable, and the preposition shows that the extended nominal phrase is not the subject of the main verb, but a qualifying phrase for which a relative construction is required. There were 36 relative phrases supplied, of a remarkable homogeneity:

የደረሰን: ዜና: (23)	የደረሰው: ዜና: (4)	የደረሰ: ዜና: (1)
"news which reached us"		"news which arrived"
የሰጠን: ዜና: (1)	"the news which arrived"	
"news given us"	የተገኘው: ዜና: (2)	
	"news which was received"	
	የተላለፈው: ዜና: (3)	
	"news which was transmitted"	
	የወጣው: ዜና: (1)	
	"news which went forth"	
	የወጣውን: ዜና: (1)	
	"news which went forth(accum)",	

this last form failing, since it makes the prepositional phrase subject of the main clause.

C9 (continued)

There were 21 examples in which no relative phrase or its equivalent appeared. Ten of these supplied passive verbs:

ተገለጠ:	(2)	ተነገረ:	(2)	ተጽፎልናል:	(1)
"it was revealed"		"it was said"		"it has been written to us"	
ተገልጽዋል:	(1)	ተነገሮ ነበር:	(1)	ተላልፎልናል:	(1)
"it has been revealed"		"it had been said"		"it has been transmitted	
				to us"	
				ተረጋግጦልናል:	(1)
				"it has been confirmed to us"	
				ተረጋገጠ:	(1)
				"it was confirmed"	

and the remaining eleven forms all indicate a failure to note the signal of the preposition.

Thus out of a total of 61 responses ten passive forms indicate a failure to perceive the signal of the accusative suffix. To the ten forms which failed to take note of the preposition must be added the subordinated structure ሊደርሰንቶሏል, "it has been possible to reach us", and to the 36 acceptable relative structures offered we may add the three suggestions involving a subordinated relative structure: በደረሰን፡ዜና፡, "by the news which has reached us"
 በተላለፈው፡ዜና፡ "by the transmitted news"
 በተላለፈውን፡ዜና፡ "by the transmitted news"(accus).

The total of 22 failures in comprehension out of 61 responses confirms the structural diagnosis of a moderately complex sentence.

C10 ፖሊሶች፡ ዕርዳታ፡ እግዳደረጉ፡

ከዚህም፡ በቀር፡ ወደ፡ በዓሉ፡ ሥፍራ፡ አብረው፡ ሔደው፡

በሕዝብ፡ ብዛት፡ የተሳሳተ፡

ከወላጆቻቸውና፡ ከዘመዶቻቸው፡ ተለያይተው፡ ሲገኙ፡ የሳባራት፡

546፡ አዋቂዎች፡ 23፡ የሚሆኑ፡ ከአዳጅ፡ እሱን፡ አምስት፡ ሞት፡ ያገኙት፡ ሕፃናት፡

ፖሊሶች፡ በድምፅ፡ ማጽደቅ፡ አማካኝነት፡

ከዘመዶቻቸው፡ ጋር፡

(በማገናኘት፡ ረድተዋል፡፡)

Police have given aid

Moreover, those who went together to the festival site,

arising out of the size of the crowd

they who were separated from their relatives and friends

and wandering about,

546 adults and some 23 children between the ages of one and

five years,

with their friends

(by re-uniting, they have helped)

Addis Zāmhān, Ṭər 2 1956 E.C.

Length of sentence: 32 words plus 2 to be provided

The essential linearity of the sentence is attested by the sequence of gerund forms and possibly the only point of real

C10 (continued)

grammatical complexity lies in the sequence of modifiers:

ገዘዎቻቸው፡ ተለያይተው፡ ሲባዝኑ፡ የነበሩትን፡

"...from their friends having become separated
they who were wandering..."

The end structure of the sentence is made more transparent than it might have been by the fact that the subject of the main clause is separated from the main verb by only six words.

The sentence was broken at a point which permitted its completion either by a single verb or by a subordinated and then a main verb. The responses are tabulated so as to demonstrate the relative preferences for the two alternatives and also so as to indicate the extent to which an object pronominal suffix was employed.

Singular verb		Plural verbs	
No obj. suff	With suffix	No obj. suffix	With suffix
	አገናኛቸው፡ 1	አገናኙ፡ 1	አገናኙቸው፡ 4
	አገናኝቷቸዋል፡ 1	አገናኝተዋል፡ 2	አገናኝቸዋል፡ 1
	አገናኝቶቸዋል፡ 3		አገናኚቸው፡ 1
			*አገናኛተዋል፡ 1
			*አገናኙቸዋል፡ 1
			ለኩቸው፡ 1
-	5	3	21

C10 (continued)

In considering this first table of results, those in which a single verbal form was offered, we note the high preponderance of plural forms, as required; in fact 4 of the singular forms are more probably to be attributed to poor spelling than to any failure of perception. We note also the four starred forms offered, mistakes in spelling here due probably to the attempt to add the objective suffix to the reciprocal verb.

Next we consider those responses which involved a subordinated verbal form, a total of 33 of them. Firstly the subordinated forms are tabulated and then the main verbs:

a. Subordinated verbal forms

Infinitives: ለጣጣኛት: (4) ለጣጣኛታቸው: (1)
 በጣጣኛት: (4)

Other verbal forms:

Singular verbs		Plural verbs	
No obj. suff	With suffix	No obj. suff	With suffix
ሊያገኛት: 1		ሊያገኙ: 2	ሊያገኙቸው: 7
		እንዲገኙ: 12	ያገኙቸው: 1
		አገኛታቸው: 1	
1	-	15	8

C10 (continued)

b. Main verbs

Singular verbs		Plural verbs	
No obj. suff	With suffix	No obj, suff.	With suffix
ተደረገ: 1		አደረጉ: 2	*ረዩቸው: 1
ረድቷል: 1		ረድተዋል: 3	አገናኙተዋቸዋል: 1
ተገልጧል: 1		ቆለዋል: 14	አድርገዋቸዋል: 1
ታወቋል: 1		አድርገዋል: 6	
		ተናግረው፡ነበር: 1	
4	-	26	3

Examination of the 33 responses which made use of a subordinated verbal form, reveals three singular passive forms and one active verb in the singular, to be added to the total of unacceptable responses; there is also one plural passive form. This makes a total of ten unacceptable responses, of which 4 may be attributed to poor spelling. A possible score of 57 acceptable responses out of 63 is a good indication of that transparency, for this type of test, which is produced when the subject is generated close to the end of the sentence.

It was noted that 39 of the auditors felt it necessary to introduce the object pronominal suffix into the verbal structure offered, 62% of those participating, although it did not appear in the original end structure.

C11 የፖሊንድ ፕሬዚዳንት፣ ኢትዮጵያን፣ ሲገቡት፡

ክቡር ፡ ፕሬዚዳንት ፡ ገባርማዊ ፡ ኅጉሠ ፡ ነገሥት ፡ ጋር ፡

በልዩ ፡ አውቶሞቢል ፡ ሆነውና ፡

በክብር ፡ አጅብ ፡ ታጅበው ፡

በአዲስ ፡ አበባ ፡ ኢዮቤልዩ ፡ ቤተ ፡ መንግሥት ፡ ተነሥተው ፡

ወደ ፡ መልካሳ ፡ በተጓዙበት ፡ ጊዜያት ፡

የዱካም ፡ የደብረ ፡ ዘይት ፡ የሞጅ ፡ የናዝሬት ፡ ገብማ ፡ ነዋሪ ፡ ሕዝብና ፡

በየቀበሌው ፡ የሚገኙት ፡ ተማሪዎች ፡

የሁለቱን ፡ መሪዎች ፡ ጭቆና ፡ ሰንደቅ ፡ ያለማዎችን ፡

በብዛት ፡ ይዘው ፡ በመሰለፍ ፡

(አሰደሰች ፡ አቀጣጠል ፡ አደረጉ ።)

The President of Poland visits Ethiopia

His Excellency the President, with His Majesty the Emperor,
being in a special car and
escorted with particular honour,
setting out from Addis Ababa's Jubilee Palace,
on the occasions when they travelled to Mälkasa,
the inhabitants of Dukam, Däbrä Zäyt, Modö, Nazareth and
the schoolchildren found in each place,
photographs and flags of the two leaders
holding in large numbers and by parading
(they made a pleasing reception)

Addis Zänän, Hedar 23 1958 E.C.

Length of sentence: 40 words plus 3 to be provided

C11 (continued)

The principal mode of structural extension here is through the gerund:

ሆኖታ፡ , "they being"

ታጅበው፡ , "they being escorted"

ተነሥተው፡ , "they setting out"

ይዘው፡ , "they holding"

and the gerund here provides us with a linear development. There are two principal subordinated clauses, each displaying the included clause, three gerund clauses included in the first and one gerund clause in the second. The subject of the main clause is the subject also of the second principal subordinated clause. This results in the comparative proximity of subject and main verb and thus to lack of difficulty in recognizing end structure.

In presenting the charts to the students of group X the mask over the sentence conclusion slipped so that this group was not able to participate in the testing on this sentence. We are left with a total of 51 participating students. All supplied a verb in the third person plural, and 14 used a verbal form which required no direct object equivalent to the አስደሳች፡አቀባበል፡ , "pleasing reception", of the original text.

There were, however, 37 auditors who offered constructions generally paralleling the original structure. Forms such as የጋለ፡ አቀባበል፡ , "a warm reception", በጋለ፡ ደስታ፡ , "with warm joy", በሚያስደናቅ፡ አኳኋን፡ , "in a remarkable manner", predominated.

C11 (continued)

It was noticeable that although the original text made no attempt to introduce epexegetical -አቸው: , the 3rd person plural object suffix, a very large majority of the auditors did. The results are tabulated to make this pattern clear:

Simple verbs		Compound verbs	
with suffix	without suffix	with suffix	without suffix
አደረጉላቸው: 4		ተቀብለዋቸዋል: 19	
ገለጹላቸው: 2		አድርገውላቸዋል: 6	አድርገዋል: 2
ተቀበሉዋቸው: 5		ተገናኝተዋቸዋል: 1	
ተቀበሏቸው: 2		ገልጸውላቸዋል: 1	ገልጠዋል: 3
ሸኝዋቸው: 1		አሰልፏቸዋል: 1	
		ተቀብለዋቸው: ነበር: 1	ተገኝተው: ነበር: 1
		አጅበዋቸው: ነበር: 1	አጅ: ይህ: ነበር: 1
14	-	30	7

Thus 86% of the auditors felt the epexegetical use of the object suffix desirable, presumably since the object (subject of the first subordinate clause, indirect object of the main clause) is separated from the main verb by 36 words.

C12 ፖሊስቶች፡ ዕርዳታ፡ እንዳደረጉ፡

የሐረርጌ ፡ ጠቅላይ ፡ ግዛት ፡ ፖሊስ ፡ ዋና ፡ መሥሪያ ፡ ቤት ፡

የበዓሉን ፡ ሥፍራ ፡ ጸጥታ ፡ ለማስከበር ፡

ቀደም ፡ ብሎ ፡ አሰጠብት ፡ ስለነበር፤

በቤተ ፡ ክርስቲያኑ ፡ አቅራቢያ ፡

፤ ፡ ጊዜያዊ ፡ የፖሊስ ፡ ጣቢያዎች ፡ እንዲ፡ ጠቅላይ ፡ ሠራ ፡

እንዲ፡ የሕክምና ፡ መስጫ ፡ ክሊኒክ ፡

እንዲ፡ የተለያዩ ፡ ዘመድ ፡ ማገናኛ ፡ የድምፅ ፡ ማገዳገያ ፡ ደለበቅ ፡ ጣቢያ ፡ አቋቁሞ፤

(ገፍ ፡ ያለ ፡ አገልግሎቱን ፡ አበርክቷል።)

Police have given aid

The main office of the Harar Province Police,
in order to preserve the peace of the site of the Feast
since it had considered it in advance,
in the environs of the church:

2 temporary police stations, one principal centre,
one clinic giving medical aid,
one site, equipped with loudspeaker, for bringing together
friends who were separated, it having established
(it has fulfilled its high responsibility)

Addis Zämbän, Ter 2 1956 E.C.

Length of sentence: 38 words plus 4 to be provided

C12 (continued)

Like the preceding sentence this sentence is developed principally through the use of the gerund. In contrast with it, however, the subject of the main clause appears in the first line and is separated from the main verb by 34 words. In mitigation, however, the subject remains the same through each subordinate verb and the third person masculine singular gerund appears only three words before the main verb, so that it should be clear that a singular, and not a plural, form is required.

Since the word preceding the break is a gerund it is permissible to close the sentence with an auxiliary verb, thus providing an elegant stylistic parallel to አሰባስቶ፡አለላለ፤ "since it had thought about it". Seventeen auditors chose to do this, and it is possible that the mode of auditing determined this; the statistics are as follows:

Listening groups		Reading groups	
No. in the group	No. offering auxiliary verb	No. in the group	No. offering auxiliary verb
W 15	8	14	2 X
Y 16	6	20	1 Z
31	14	34	3

That 45% of the listening group but only 9% of the reading group selected the alternative of an ending employing a compound verb and thus the provision of only an auxiliary verb might suggest,

C12 (continued)

although the evidence is too scanty to do anything more than suggest, that the mode of auditing may, in some circumstances, influence the auditor's expectation of structure to follow.

Where the second alternative was adopted, that of supplying a complete main clause, 12 auditors offered forms failing in concord: ከደረገ፡ ; አድርገዋል፡ (3 times); ረድተዋቸዋል፡ ; አሰርክበዋል፡ ; *አቋቋማዋል፡ ; አጡለዋል፡ ; ለጣሠዋል፡ ; ችለዋል፡ (twice) and ተሰናድተው፡ ነበር፡ . This failure is almost certainly to be attributed to the holding of the subject in suspense. We have seen that the three gerund forms point to the singular subject, but it is well known by educators that it is precisely in this form of the verb, the gerund, that students experience difficulty in differentiating singular masc. (e.g. ብሎ፡ , አሰቦ፡ , አቋቋሞ፡) from plural (ብለው፡ , አሰበው፡ , አቋቋመው፡) in the third person.

C13 የጊብራል ተሰባሚዎች ጥያቄዎች :

እነዚህም የአሥራ አንድ ክፍል ሠራተኞች ፡
 ለድርጅቱ በተለያዩ ደረጃዎች ላይ ለሥራ ላይ ፡
 የተገባሩ ሰዎች ፡ ለሥራ ላይ ፡ የሥራ ላይ ፡ ለሥራ ላይ ፡
 ለሥራ ላይ ፡ ለሥራ ላይ ፡ ለሥራ ላይ ፡ ለሥራ ላይ ፡
 ለሥራ ላይ ፡ ለሥራ ላይ ፡ ለሥራ ላይ ፡ ለሥራ ላይ ፡
 ለሥራ ላይ ፡ ለሥራ ላይ ፡ ለሥራ ላይ ፡ ለሥራ ላይ ፡

The decision of the people of Gibraltar

And these employees of eleven departments,
 in the messages which they have transmitted to the Organization,
 The Committee on Colonialism of the United Nations,
 with Great Britain
 the desire that we have to live united, that it will support
 for us
 hope (we have placed, saying, they have revealed)

Addis Zāmän, Təḵəmt 17 1956 E.C.

Length of sentence: 24 words plus 3 to be provided

C13 (continued)

For the completion of this sentence two parts are required, a verb to complete the predicate of the direct speech clause and a verb for the main clause. The former will be in the 1st person plural and the latter in the third person plural. One auditor failed to provide the former, offering only በሚሉት፡ አስታውቆቻል፡ , "saying, they have indicated". There were 27 auditors who failed to supply any form of the verb ኧለ፡ , "to say" or its semantic equivalent.

Considering firstly the verbal form associated with signal of the object ተስፋ፡ , "hope", we find 43 auditors supplying ኧናደርጋለን፡ , the compound imperfect, and only three occurrences of the form supplied in the original text, ኧድርገናል፡ , the compound gerund. Two auditors allowed the readily perceived general context to attract the 3rd person plural forms አስታውቆቻል፡ , "they have announced", and ሰጥቶቻል፡ , "they have given".

In the original text a subordinating particle precedes the verb, but the auditors preferred a less cumbersome conclusion, supplying ኧሉ፡ , "they said", 14 times and ብለዋል፡ , "they have said", 13 times (or 14 times also, if we accept the form ብሏል፡ as merely an error of spelling, as is likely). Of the 4 subordinated structures three employed the infinitive, በሚሉት፡ ገለጹ፡ , "saying they revealed"
 በሚሉት፡ አስታውቆቻል፡ , "saying they announced"
 በሚሉት፡ አስታውቆቻል፡ , "saying they have announced" and the fourth came close to the original text with ሲሉ፡ አስታውቆቻል፡ , "saying they announced".

C13 (continued)

There were two curious suggestions

የሚሉ : ቃላት : ይገኙበታል : , "words which say are found in it"

የሚል : አሳብ : ይገኛለታል : , "the idea which says is found in it"

the explanation for both of which structures must be found in the double plural መልእክቶች : , "messages". This would have been turned into an indirect object and its plural form overlooked, the verb አገኘ : , "to find", in its passive form, supplied, thus leaving a pendent nominative.

We thus find a total of 32 failures, three from the first part of the required response and 29 from the second part. The majority of these failures were due to lack of comprehension of the direct speech construction. This would suggest that, although the use of direct speech is a striking feature of Amharic idiom, the formal marking of the idiom is not regularly observed by schoolchildren.

Summary of results

1. Distribution of simple and compound verbal forms

Superficial examination of the verbal forms supplied by auditors for the conclusions of the sentences in Set B and Set C suggested that there was a significant deviation from the original pattern of distribution of simple and compound verbal forms. We shall consider first of all the actual distributions of these forms in the originals and amongst the auditors for the two Sets separately.

In examining the sentences of Set B for this purpose we exclude sentences B1, B2 and B3, all of which are copula sentences, and sentence B13 which required a negative verbal form. The remaining ten sentences displayed in their original structures the following main verbs:

	<u>Compound</u>		<u>Simple</u>
B4	ገልጸዋል:	B5	አቀረቡ:
B7	ጠቅሰዋል:	B6	አለችኝ:
B8	ችሏል:	B9	ቀኝለ:
B10	ተገኝቷል:		
B11	ተደረገል:		
B12	ተፈጻሚነቷል:		

However, although there were twice as many compound forms as simple forms in the original texts, the auditors proposed 286 compound forms compared with 240 simple verbal forms. The distribution was as follows:

Sentence no.	Original verb	Proposed by auditors	
		Simple	Compound
B4	ገልጸዋል፡	32	24
B5	እቀረቡ፡	52	11
B6	እለኙኙ፡	36	13
B7	ጠቅሰዋል፡	29	31
B8	ኾኗል፡	9	52
B9	ተቻለ፡	13	45
B10	ተገኘቷል፡	11	48
B11	ተደርጓል፡	18	39
B12	ተፈጥሮባታል፡	40	23
	Totals	240	286

It will be observed here that in five cases the preferred form of the majority of the auditors agrees with that of the original, there are three cases of disagreement, one of them a decided preference for a compound verb rather than the simple verb of the original, and for one sentence the auditors are almost equally divided between the two alternatives.

A slightly more detailed analysis was made of the testing results for Set C, to determine if the same trend was discernible there, and if there was any correlation between the forms selected by the listening groups and the reading groups. Here we consider eleven of the thirteen sentences of the Set, omitting sentence C6, which was treated by many auditors as a copula sentence, and C12, the end structure of which made possible two distinctively different conclusions.

Of the original sentence structures 8 employed a compound verb in the main clause and 3 a simple verb. The original forms were as follows:

<u>Compound</u>	<u>Simple</u>
C1 አድርገውላቸዋል፡	C3 አስገናዘቡ፡
C2 አድርገዋል፡	C4 ገበበኙ፡
C5 ይገኛል፡	C11 አደረጉ፡
C7 ይቻላል፡	
C8 አቅርበዋል፡	
C9 ገልጿል፡	
C10 ረድተዋል፡	
C13 ገልጸዋል፡	

Here the total of simple verbs is 37% of that of the compound verbs but the auditors offered a total of 291 simple verbs as compared with 383 compound verbs, and the former represents 77% of the latter.

Sent no	Original	Reading groups						Listening groups						Overall	
		Gp X		Gp Z		Total		Gp W		Gp Y		Total		total	
		Sim	Com	Sim	Com	Sim	Com	Sim	Com	Sim	Com	Sim	Com	Sim	Com
C1	አድርገውላቸዋል:	9	5	15	5	24	10	11	4	10	5	21	9	45	19
C2	አድርገዋል:	10	4	13	6	23	10	7	6	13	3	20	9	43	19
C3	አስገኝዘቡ:	8	6	11	9	19	15	7	7	10	6	17	13	36	28
C4	ገበዥ:	5	9	12	7	17	16	3	12	7	9	10	21	27	37
C5	ይገኛል:	2	9	4	11	6	20	4	5	7	4	11	9	17	29
C7	ይቸላል:	3	6	1	17	4	23	2	12	1	13	3	25	7	48
C8	አቅርበዋል:	8	5	16	4	24	9	7	8	12	4	19	12	43	21
C9	ገልጿል:	4	10	7	13	11	23	2	13	8	8	10	21	21	44
C10	ረድተዋል:	5	10	5	15	10	25	2	13	3	13	5	26	15	51
C11	አደረጉ:	2	11	3	17	5	28	3	12	9	7	12	19	17	47
C13	ገልጸዋል:	5	8	6	13	11	21	6	7	3	12	9	19	20	40
		61	83	93	117	154	200	54	99	83	84	137	183	291	383

What is remarkable here is that for 9 of the 11 sentences the preferences of reading and listening groups is the same although in four examples the original form of verb differs from that preferred by the auditors. For sentences C1, C2 and C8 the auditors preferred a simple verbal to the compound form of the original, and in C11 they preferred a compound form to the simple verb of the original.

When the preferences of the two reading groups are compared with those of the two listening groups we find an almost precisely

similar distribution of preferences between the groups. There are only three examples in which one group clearly indicates a preference different from that of the others and five more where the preference of a group for simple or compound form is not clearly discernible, almost equal numbers of auditors selecting each of the two alternatives. In fact 42.8% of the listening groups responses were of simple verbs and 43.5% of the reading groups responses were of simple verbs. Thus there would appear to be no response differentiation produced by a particular mode of auditing.

We may now compare the responses of the auditors of Set B and Set C sentences. In the first Set we have three out of nine sentences exhibiting simple verbs in their original end structures, and in Set C we have three out of eleven sentences with simple main verbs. In the responses to Set B we find 45.6% of the auditors responses in the simple verb category compared with the overall figure of 43.2% in the responses to Set C. These figures would strongly suggest that the selection of a simple or a compound verb for a sentence is conditioned principally by stylistic considerations and only secondarily by semantic requirements. There remains, however, one further possibility, that selection of the one form rather than the other is to be attributed to the auditor's ability in Amharic. This theory was tested from the statistics obtained both from Set B and from Set C of the sentences.

For each of the two sets of sentences two groups of auditors were selected, the one group consisting of auditors whose Ministry of Education Amharic examination placing was less than 90 percentile and the second group having only students with a placing more than 90 percentile. The assumption was that the first group would show a significantly higher percentage of simple forms than the second group. The contrasting groups used in examining the results of the tests on Set B were not the same as those used in connection with Set C thus ensuring that we would not measure simply the selection patterns of a possibly unrepresentative minority. The results follow: SET B

Group I, less than 90 percentile			Group II, more than 90 percentile		
Student no.	Verb selections		Student no.	Verb selections	
	Simple	Compound		Simple	Compound
W2	5	3	Y7	2	7
W3	1	7	Y8	0	9
W9	4	6	Y13	4	4
X9	7	2	Y16	2	6
X10	5	1	Z1	4	4
X5	0	9	Z2	5	3
X13	4	3	Z7	2	7
X14	0	9	Z12	3	3
X15	0	8	Z17	3	6
W4	1	8	Z20	2	7
Totals:	27	56	Totals:	28	56

SET C

Group I, less than 90 percentile			Group II, more than 90 percentile		
Student no.	Verb selections		Student no.	Verb selections	
	Simple	Compound		Simple	Compound
W1	2	12	W6	1	11
W4	5	8	X2	11	0
W9	2	12	Y5	8	7
X3	1	13	Y8	2	11
X13	11	3	Y10	5	8
X14	5	10	Y11	7	5
Y6	3	13	Z1	5	10
Y12	9	6	Z17	6	10
Z4	6	8	Z18	9	6
Z8	11	3	Z19	1	15
Totals:	55	88	Totals:	55	83

These two sets of figures present striking confirmation of the fact that the selection of simple or compound verbal forms is not to be related to proficiency in the language but is a highly idiosyncratic process. There is no overall pattern of selection: thus the table for Set C indicates that from Group I two students show a preference for the simple verb, six favour the compound verb and two show no clear preference. In Group II we again find six favouring the compound verb, but 3 favour the simple verb and one shows no clear preference. In other words preferences are not related to ability in Amharic.

The examination of the verbal forms supplied by auditors to conclude incomplete sentences, shows that the form supplied is not necessarily to the (simple or compound) form of the original, nor to the mode of auditing of the incomplete sentence, nor to the ability of the auditor in Amharic. The fact that, when the original texts showed simple verbal forms in 33% of the sentences (Set B) and when the original texts showed simple verbal forms in 27% of the sentences (Set C) the auditors responded with simple verbal forms in 46% and 43% of the responses suggests a trend today towards the favouring of simple forms at the expense of the compound verbal form.

2. Selection of active/passive forms of main verb

Four of the original texts of the sentences of Set B displayed passive main verbs. Sentence B9 employed ተቻለ፣ "to be possible", and we have seen that, for this sentence, the active form of the same verb is acceptable. Sentence B11 is a second example of a structure in which either an active or a passive main verb is permissible. Both B10 and B12, however, formally require a main verb in the passive. The forms actually supplied by the auditors are here tabulated so as to indicate distribution.

Sentence no.	Response of auditors in Set B									
	Active forms					Passive forms				
	Gp. W	Gp. X	Gp. Y	Gp. Z	Total	Gp. W	Gp. X	Gp. Y	Gp. Z	Total
B9 (ቀቻ ለ:)	13	11	12	13	49	3	1	4	4	12
B10 (ተገኝ ጊዜ:)	1	3	0	1	5	9	15	18	5	57
B11 (ተደርጋል:)	11	7	13	14	45	4	4	1	4	13
B12 (ተላቁ ጠባቂ:)	1	0	1	0	2	14	13	15	19	61

Although in the original texts all four of these sentences employed a passive verb in the end structure, the structures of B9 and B11 permitted either an active or a passive main verb. The figures above show that, where a passive verb is clearly signalled and unambiguously demanded by a structure, the auditors were able to supply that form of verb. But where the structure permitted the alternative the majority preferred to supply an active verb: 80% of the responses to B9 and 78% of the responses to B11 were active forms.

3. Loss of concord and the pendent nominative

The pendent nominative is adopted as a stylistic device in sentence B3:

ሕፃን : ልጅ : እናቱ : ጠባቂን : ሰታቀርብለች :

"a baby, its mother, when she offers it her breast",

but the pendent nominative more frequently arises as a special case of anacoluthon, when a lengthy sentence or an involved structure conceals the early sentence structure, while offering a plausible subject for the main verb in the immediate environment of that verb.

The feature of suspense appears to have been decisive in producing opacity in some six sentences and these must briefly be considered. The relevant statistics are as follows:

Sentence number	Sentence length (words)	Extent of suspense feature (words)	No. of errors
B4	33	25	19
B7	43	38	30
B9	44	23	16
B13	50	29	48
C8	26	13	14
C12	42	34	12

Suspense as a feature of Amharic grammar does not operate only in relation to the subject. Thus in sentence B9 we have what appears to be a positive comparison of the officers of the Telecommunications Board with certain others but this comparison is negated after a sequence of 23 words. Again in sentence አገጅ³¹³ the formal structure of the sentence employing contrasting አገጅ: is clearly signalled, but the completion of the structure

after the signal of the contrastive particle is delayed for 29 words, and this has resulted in the failure of 48 auditors to perceive, or to retain, the structure.

There are various ways of minimising the suspense effect; thus in sentence C3 the complex structure of the first subordinated clause brings the subject to a point in the sentence only 18 words from the main verb, and as a consequence there were only 5 failures of comprehension in this sentence. In C8, however, while only 13 words separate subject from main verb, the structure is made more opaque by the varying subjects of the clauses: 3rd person plural for the main clause, 3rd person masculine singular for one subordinate clause and 3rd person feminine singular for another. Occasionally, where the subjects of successive subordinate clauses are unchanged, subordinate verbs may re-inforce the signal of the subject which is itself held in suspense. Thus in sentence C12 the subject is held in suspense for 34 words but the gerund form in proximity to the end structure functions to remind the auditor of the required structure to follow; in spite of the lengthy suspense there were only 12 failures of comprehension.

It would appear that where the subject, or any important structural marker, is held in suspense over a sequence of the order of 20 or more words anacoluthon is likely to occur.

4. The concept of linearity

It is more easy intuitively to recognize the linear sentence than it is to define those structural features which are typical of it. It may be suggested, however, that subordination is the feature common to all non-linear sentences. This is not to suggest that a linear sentence is one in which subordination processes do not appear, merely that apart from subordination the non-linear, or cyclic, structure does not appear.

It is possible for the linear sentence to display one or more subordinate clauses which, in their turn, display the included clause, but it is particularly in the suspended dependence of the subordinate clause on its principal verb that the characteristic of linearity is found to depend. Thus the non-linear sentence will be characterised by the generation of one or more adverbial subordinate clauses, separated from the qualified verb by an extended sequence of the order of 15 or more words in length.

The contrast between the structures of linear and cyclic sentences is best seen in sentences A4 and A5, the former with 55 words and the latter with 58 words. In the testing the latter attracted three times as many errors as the former. The essential structure of each sentence is best displayed by examination of the verbal forms employed.

Sentence A4 (linear)	Sentence A5 (cyclic)
1. subject 2. ጭናው: "having loaded, ለመሸጥ: to sell" 3. ሲሄዱ: "as they went" 4. ተይዘው: "being arrested" 5. ጭናው: "being found በመገኘታቸው: having loaded" 6. ተገሰሰው: "being accused" 7. እንዲገቡ: "that they pay" 8. ባይከፈሉ: "if they do not pay" 9. እንዲቀጡ: "that they be punished" 10. ተፈርዶባቸዋል: "it was decided against them"	1. subject 2. በመስፈሩ: "by his giving place to, and" 3. በመሄዱ: "by his going" 4. ቀርቦ: "he attending" 5. ሲታይ: "when it was seen" 6. ቀርቦ: "he attending" 7. እንዳይሳይ: "that he not drive" 8. ንሱ ሲገኝ: "he being found በመገኘቱ: ignoring and driving" 9. በማጠቃለል: "by combining" 10. መሆኑን: "his being" 11. ታውቋል: "it is known"

The two contrasting features here are at once apparent: in the linear sentence the subject of successive clauses remains the same (and even the passive main verb reflects the subject of the subordinate clauses), and the clauses are time sequential. But in the cyclic sentence two of the subordinate clauses have subjects other than that given at the opening of the sentence, and the time reference of the second clause in ቀርቦ: precedes

that of the first clause using the same verbal form. In fact we have in A5 the suspense feature in which the completion of the first two subordinated clauses, (themselves co-ordinated), is held in suspense until a third subordinate clause of parallel structure is generated, and the three structures can then be concluded.

The key to the structure of this sentence is the repeated use of the infinitive: በመሔድ፡ , "because he went off"

በመሰፈፋ፡ , "because he gave place to"

በመገኘቱ፡ , "because he was found".

It may sometimes be found that a sequence of gerunds produces a linear sentence structure as in sentence C11 where the

successive clauses end ሆኖቸው፡ , "they being and"

ታይቸው፡ , "they being escorted"

ተነሡ፡ , "they setting out"

ይዘው፡ በመሰለፍ፡ , "holding, by parading"

but it will have been noted in the example of sentence A5 that where the gerunds do not form a sequence, but are interrupted by subordinating particles, linearity may be preserved over only the possibly brief, un-interrupted, segment of the sentence.

We may compare also sentences C4 and C5, the former with 33 words, a linear structure, and the latter with 32 words and a cyclic structure. In the testing 26 incorrect responses were associated with the cyclic sentence and none with the linear sentence.

In sentence C4 we have an extended subject and an extended direct object for the main verb, a nominal cluster which includes a fairly complex relative phrase:

አዋሽ : በመሠራት : ላይ : የሚገኘውን : የመልካሳን : ሁለተኛና :
ሦስተኛ : የውሀ : ግድቦች :

"The second and third Mälkasa dams found under construction at Awash",

but there is only one, relatively straightforward, subordinate clause and the subject of main clause and subordinate clause is the same.

With this position may be contrasted the structure of C5 and the variations of subjects for the verbal forms:

እየተረዱን : , "while benefitting ourselves"
ድርቀት ስለሰጣውና : , "because it has become dry and"
በረሃም ስለሆነ : , "because it has become a desert"
ገለመቻ ላችን : , "since we are not able"
ስለሚያመጡ : , "because they bring".

We are here presented with logical dependencies rather than with chronological sequences and the former would appear to be more opaque to comprehension than the latter.

While it appears that a change of subject need not disturb the essential linearity of a sentence provided that the chronological sequence is not disturbed (cf. sentence C11) the testing of

sentence C8, a comparatively brief structure of only 26 words, showed that the variation of subjects within the clauses made the sentence opaque: there were 14 incorrect responses. The plural subject for the main clause is generated at the beginning of the sentence but the direct speech construction introduces the other subjects:

ትገባኛለች:	, "she belongs to me"
ሲል:	, "as he said"
በመቃወም:	, "in rejecting" (no indication of subject explicit here)
እንዲቀዳደሩ:	, "that they be governed".

This sentence also displays the breakdown of chronological sequence, the subject for the subordinated infinitive clause being held in suspense while the chronologically earlier direct speech clause is generated.

Fairly typical linear sentences are A4, B12, C4, C10 and C11 and contrasting cyclic sentences are A5, A7, B13, C5 and C8. Cyclic sentences are characterised by subordination, linear sentences by chronological sequence, the absence of suspense features associated with clause structure, and a common subject for successive clauses.

CHAPTER SEVEN: COMPREHENSION AS ABILITY TO TRANSLATE

The sentences; Structures offered by examinees; Sentence complexity and student performance; The nature of the problem; Analysis of the translations: apparent failure to comprehend the English structure, the influence of information load, the effect of sentence structure.

CHAPTER SEVEN: COMPREHENSION AS ABILITY TO TRANSLATE

In this chapter an attempt is made to correlate the complexity of the structure of a sentence with the difficulty experienced by students in generating that sentence. Access was obtained to the examination scripts for the General Certificate of Education Ordinary Level examination in Amharic¹. Included in the examination was a question requiring translation from English into Amharic of relatively short sentences. Scripts from two years were available, and when the relevant examination papers for the two years were examined it was noted that for one year the type of Amharic sentence required in each case was reasonably clear and distinctive. This set of sentences was, therefore, selected for the present purpose.

The sentences

The seven sentences are set out below in English, in the order in which they originally appeared, and an Amharic translation is supplied for each. The Amharic rendering is based on the following considerations:

1. The sentence form in the Amharic language reflected by the form of the English sentence. Thus in sentence (h), below,

¹ The ready co-operation of the University of London School Examination Department and of the University's Examiner in Amharic is gratefully acknowledged. Any conclusions reached or opinions expressed in this section are, of course, my own and not those of the University.

the construction in contrastive አንድ፤ best reflects the English sentence, although the less elegant ነገር፡ግን፡ is also possible.

2. The sentence form and vocabulary approved by the examiner as suggested by his marking. Thus a somewhat literal rendering of the English is accepted, since the marking indicates a greater concern with structure than with vocabulary.
3. The forms actually offered by the students. This criterion is clearly subordinate to the two mentioned above. In no case did any one student offer the entire sentence structure finally selected as the required rendering. Differing parts of the overall structure were selected from the range of translations given.

Seven of the eight sentences were used in this section, the eighth being omitted since it consisted of two parts and the marking of the two could not be distinguished.

(a) Closed conditional sentence

"If the teacher had realised how ignorant the boy was he would never have let him into the class"

አሰተማሪው፡ ሩሳቺን፡ ድንቁርና፡ ሲያውቅ፡ ሞሮ፡
አንገሩ፡ ውሰኘ፡ ገላሰገገውም፡ ነበር።

(b) Negative predication

"I do not know whether or not I can take you to the theatre tomorrow"

ነገ፡ አንተን፡ ወደ፡ ቲያትሩ፡ ለመውሰድ፡
መቻሌን፡ አለመቻሌን፡ አላውቅም።

(c) Complex sentence with relative clause

"Let me introduce you to an old friend I first met many years ago"

ከብዙ ሳምንታት በፊት ለመጀመሪያ ጊዜ ገብተኝ ሆኑት፡፡
 ገደድ ገልጻጅ ሆኖ ጋር ላስተዋውቅህ።

(d) Complex sentence with reported speech

"Please stay in your places until I tell you to step forward"

እገባችሁ ወደ ራሳችሁ እንድትሰማሩ እንገልጽላችሁ፡፡
 ገላችሁ በጊዜ ገባችሁ።

(e) was omitted

(f) Copula sentence

"Either of these two cars will cost you the same"

ለእነዚህ ለሁለቱም መኪናዎች የምትክፍለው ዋጋ አንድ ነው።

(g) Semi-conditional sentence expressive of doubt

"Perhaps the day will come when everyone possesses his own house"

እያንዳንዱ ሰው የግል ቤት የሚኖርበት ቀን ይመጣል።

(h) Positive/negative contrastive sentence

"This is not the best coat I can show you but it is the cheapest"

ይህ ጉዳይ ለማሳየት ገምግማቸው ርካቸው ነው፡፡ እንደገና፡፡
 አንደኛው አይደለም።

Structures offered by examinees

The errors noted in the translations offered fall generally into four categories:

1. Spelling mistakes. These were usually quite unimportant, alternative forms of the same word: ሥፍራ፡ / ሰፍራ፡ and ላመቅ፡ , በመቅ፡ and አመቅ፡ being common examples. However a frequent, and important, error was the substitution of a third order character for the sixth order in the prefix to a simple imperfect form: የሚወስድህ፡ for የምወስድህ፡ , ሊወስድህ፡ for ወስድህ፡ , እንደሚሄድ፡ for እንደምሄድ፡ , ይሚያውቅ፡ for ይያውቅ፡ are a few of the very many examples noted.
2. Failure to comprehend the English. This was not generally an important factor, except in the last sentence, where perhaps one half of the students appear not to have understood the English. The English contrastive but appears to be relatively opaque to the Ethiopian student.
3. Failure to include all the information given. This failing was particularly evident in connection with sentence (c), which had a heavier information load than the other sentences. Here such items as "first" and "old" tended to be omitted.
4. Aberrant forms could usually be attributed to mere carelessness but simple imperfect ወስድህ፡ instead of ወስድህ፡ appeared several times and the remarkable imperative ምጡ፡ was also noted.

The general impression gained from a careful examination of the scripts was that the students mostly fail in their grasp of the overall features of sentence structure, rather than in the details of morphology. This is probably to be attributed to a lack of regular reading in Amharic.

Sentence complexity and student performance

In order to determine whether or not a homogeneous system of marking had been applied to all the papers they were divided into two groups, on the basis of the examination centres from which they came. There were twenty scripts in group 1 and fifteen in group 2. If a consistent system of marking has been applied throughout then the two groups should show a similar order when the sentences are listed in order of the total marks awarded to all students of the groups. The results are tabulated, not only for the individual groups but also for the entire 35 scripts.

Sentence number	Total marks		
	Group 1	Group 2	Groups 1 & 2
h	28	24½	52½
c	33	25	58
d	33	26½	59½
f	34½	26½	61
b	42½	28½	71
g	39½	31½	71
a	43½	30	73½

It is noted that there is general agreement between the two groups of marks: sentence (h) is the most difficult sentence as indicated by the marking of each set, sentence (a) is the easiest in group 1 and apparently more difficult than only one other sentence in group 2. Over the total range of 35 scripts there is an increase of 40% in the marks awarded to the least difficult sentence over those awarded to the most difficult sentence, and with such a comparatively small range of divergence closer agreement could not be expected, particularly where only such a small number of scripts is involved. The actual rankings of the sentences follow:

Sentence number	R a n k		
	Group 1	Group 2	Groups 1 & 2
h	1	1	1
c	$2\frac{1}{2}$	2	2
d	$2\frac{1}{2}$	$3\frac{1}{2}$	3
f	4	$3\frac{1}{2}$	4
b	6	5	$5\frac{1}{2}$
g	5	7	$5\frac{1}{2}$
a	7	6	7

This preliminary examination of the system of marking suggests that it has been applied consistently, and that the marks meaningfully reflect sentence difficulty.

The nature of the problem

Translation is clearly a test of the examinee's competence in two languages. In the translation of isolated sentences the extraneous influence of anything other than immediate context is removed, so that difficulty must be located either in the form of the original sentence or in the structure required for the translation of that sentence. The difficulty may lie in the nature of the information conveyed by the sentence, in its vocabulary, in its word or sentence structure or in the total information load of the sentence. In general, examination of the translations offered by the examinees made it possible to identify with a fair degree of probability most of the errors to be attributed to the various factors.

It has been shown for English that, where the total information load is the same, the passive sentence is no more opaque to comprehension than the active sentence¹. Previous experimental work which suggested that this was not so has been shown to be due to a failure to control information load. It is, then, clear, that for English the information load of a sentence influences in some degree its opacity. The seven sentences, in Amharic, were, therefore, examined to determine the information load of each.

¹ Philip B. Gough, "Grammatical transformations and speed of understanding" in JVLVB, 4(1965), p.110, refuted by Edwyn Martin and Kelyn H. Roberts, "Grammatical factors in sentence retention", JVLVB, 5(1966), p.216.

The principles by which the information loads of the sentences were measured are those discussed in connection with similar measurements in chapter 5, above¹. The information load of a word will include its affixes, its semantic connotation and some measure of its relationship to context. It is assumed that the marking of the sentences in Amharic, as practiced by the Examiner, will take into account the proper transfer of all information from the English original to the Amharic rendering. S/

The test set to the examinees was also one involving their ability to comprehend structures of varying types or, to use Yngve's terminology², varying mean depths, both in English and in Amharic. Fortunately the students do not appear to have experienced great difficulty in understanding the English structures, with the exception of sentence (h). The Yngve mean depth figures for the seven English sentences and the seven equivalent Amharic sentences were calculated and found to be 1.8 and 2.5 respectively. Thus the examiner has been able to request a fairly complex response in the Amharic without unduly confusing the student with a correspondingly complex English original.

¹ pp. 172-3.

² V.H.A. Yngve, "A model and an hypothesis for language structure", PAPS, 104(1960), pp.444-466. The hypothesis is briefly discussed in the appendix 3.

Analysis of the translations

The translations offered were examined and the results are discussed under three headings: failure of comprehension, influence of information load and effect of sentence structure.

1. Apparent failure to comprehend English structure. As we have

seen this failure may be in the area of vocabulary¹ or of sentence structure. In sentence (a) there were only three vocabulary errors: ቢለቀው : ኖሮ : , "if he had let him go", instead of "if he had known", በጠባዩ : ኘሩ : አለመሆኑን : , which corresponds poorly with English "ignorant", and the word ቢንቀረው : which fails to supply the required singular form of the object and indicates a failure to comprehend the general meaning of the English sentence. Several sentences failed to represent the English adequately, as indicated by the Examiner's low marking:

አስተማሪው : ልጅ : በጠባዩ : ኘሩ : መሆኑን : ገለጸው :

ወደ : ክፍሉ : አንዲገባ : አይፈቅድለትም ::

"If the teacher does not know that the student has a good character he does not let him into the classroom",

ልጅ : በጣም : ትምህርት : የሚይዝው : ገሆነ :

መምህሩ : ልጅ : ወደ : ክፍሉ : አንዲገባ : አይፈቅድለትም ::

"If the child is the kind who simply doesn't understand lessons then the teacher does not let him into the classroom",

¹ An English tract entitled "He took my whipping" was translated into Amharic and published by the Sudan Interior Mission in Addis Ababa as ልቅሶዬን : ተቀበለ : , "He took my weeping", later corrected to ግርፋቴን : ተቀበለ : .

አሰተማሪው፡ የልጅን፡ ናቁነት፡ ገብተው፡ በረሃ፡ አገልግሎት፡
 እንዲገባ፡ በፍጹም፡ አልፏቸዋል።

"After the teacher had realised the child's insolence
 he absolutely refused to allow him to enter the room".

In sentence (b) the vocabulary appears to have presented no difficulty and only one translation suggested that the examinee had difficulty in generating the required structure:

ህገ፡ እንደተገኘ፡ ወደ፡ ተያይዞ፡ ሌሎች፡ ለመውሰድ፡ (ወይም፡ ገን፡ ጋር፡ ለመ[ሄ]ድ፡
 እንዲገቡ፡) የምትችሉ፡ መሆንን፡ አላውቅም።

"To take you to the theatre tomorrow (or that you are able
 to go with me) I do not know if I can".

In the translation the positive/negative contrast is absent but the general sense of the original is preserved.

Although there is no reason to suppose that the students failed to comprehend the English "(whom) I first met many years ago", six quite failed to include this in their translations, and a further seven rendered it incorrectly. But only one student quite clearly failed to comprehend and then communicate the sense of the original:

እንተ፡ ገብሎት፡ ወደጅምር፡ ስተዋወቅ፡
 ገብቶ፡ ጊዜ፡ በጊዜ፡ ነው፡ ያገኘሁህ።

"Let me introduce you to an old friend,
 it was a long time ago that I met you".

The other failures indicated simply an inability to handle the relative clause modified by a preposition.

In sentence (d) the lack of precision of English "you" has caused some confusion, and the additional guide of the plural "places" has not assisted in clarifying the English. As a result some sentences offer unexpected collocations of singular and plural:

እገክህን፡ እስኪጠራቸው፡ ድረስ፡ እቦታህ፡ እንድትቆሙ፡፡

"Will you(sing) please, until he calls you(pl)
will you(sing) remain in your(sing) place",

መንገድህን፡ ቀጥሎ፡ እስክገልጃህ፡ ድረስ፡

እገክህን፡ እሥፍራዎቻችሁ፡ ላይ፡ ቆይቶ፡፡

"Until I tell you(sing) to continue your journey(sing)
will you(sing) please in(your)places will you(pl) remain".

As in previous sentences the students appear to have understood the general contents of the English original, but have then found some difficulty in constructing the required Amharic equivalent, particularly of the English indirect speech clause.

Although there is no reason for supposing that sentence (f) is difficult to comprehend in the English, two students made no attempt to provide an Amharic translation and a third student gained no mark for his attempt. It was interesting to note the varied sentence patterns used in the attempt to generate the required Amharic structure. The copula sentence was the favourite pattern: 13 out of 18 sentences from one examination centre were of this type.

Other verbal forms offered for sentence (f) were

ያስገፍላላል:	"it will cause you to pay"
ያወጣሉ:	"they will produce"
ይሁንልላል:	(ሁ: written for ሆ: ?)
	"it will be to you"
ያስገኝልላል:	"it will get for you"
ይበዛብላል:	"it will cost you, exorbitantly".

Probably the main difficulty here was the unwillingness of the students to depart so far from the English text as to produce the Amharic የሁለቱም መጠን ወይንም ደንበኞች ለሁለቱም ነው።, "The price of the two cars is the same", which is probably the best equivalent of the English.

Sentence (g) involves the generation of an essentially complex structure involving a relative clause in a sentence with a qualified predicate. The qualifying "perhaps" has been rendered by initial ምናልባት፣, by final ይህንን፣ or by both items. The difficulty of rendering English "possess" has been recognized by the Examiner and in addition to ኖረ፣ has accepted, apparently without penalty, structures employing ያዘ፣, "to take", አገኘ፣, "to obtain", ገዛ፣, "to buy" and ሠራ፣, "to construct". But there is nothing in this diverse assembly of verbal forms to suggest that the English text has proved opaque to comprehension.

The last sentence of the set, however, presents a different picture, for a number of students appear to have failed to comprehend the English original. Two of the translations are

notable for the confusion of syntax displayed:

ይህ : ጥሩ : ዋጋ : አይደለም : ሌላ : ጥሩ : ዋጋ : ማለት :
አረካሽ : ያለውን : አሳይላለሁ ::

"This is not a good price; another good price, that is to say a cheap one, I will show you",

ይህ : አይደለም : ያሳየሁህ : ጥሩ : ጥቅ :
አረካሽ : ነው : አንጂ ::

"This it is not, what I showed you, a good coat but it is the cheap one".

Other translations suggest only a very general grasp of the English and a failure to conceive the required Amharic structure:

ይህ : ደንበኛ : ጥቅ : አይደለም : ለሳይህ : አቸላለሁ ::
ነገር : ጣን : አረካሽ : ነው ::

"This is not a good quality coat, I can show you. But it is cheap",

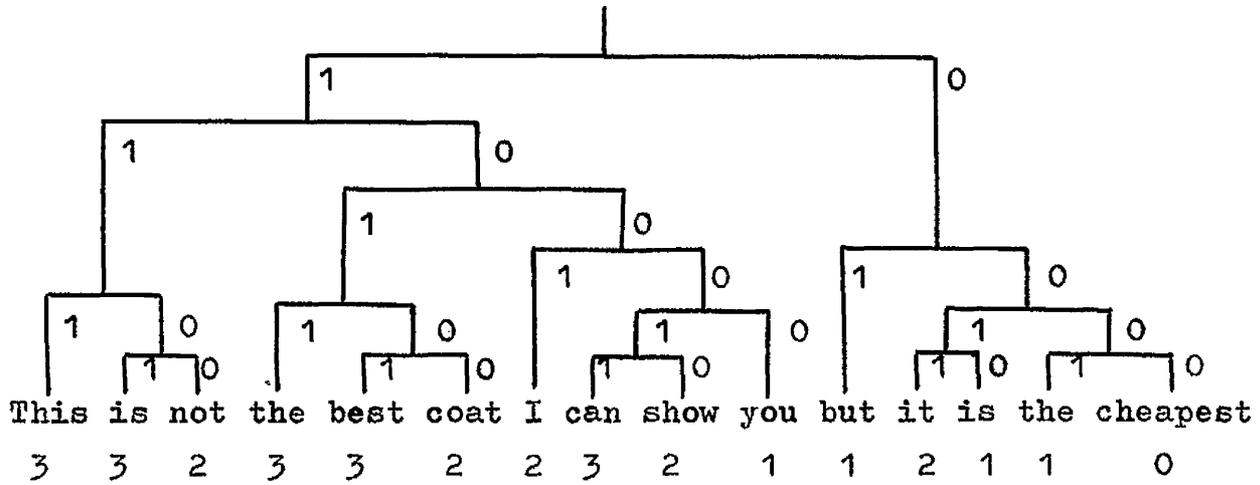
የሚሳይ : ጥቅ : ጥሩ : አይደለም :
ጣን : ዋጋው : አረካሽ : ነው ::

"The coat which I am showing you is not good, but the price is cheap",

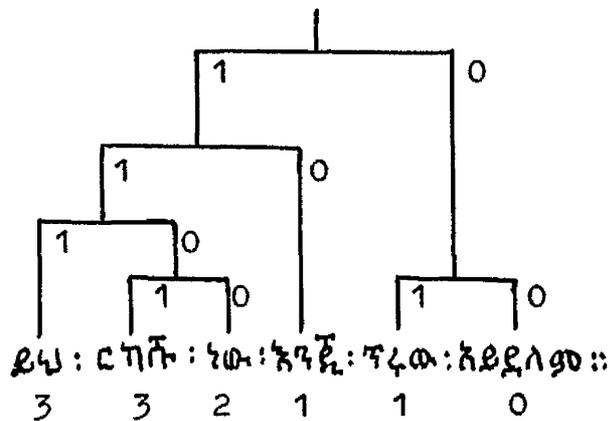
ይህ : ደህና : ዋጋ : አይደለም : አሳይላለሁ ፤
ነገር : ጣን : በጣም : አረካሽ : ነው ::

"This is not a good price, I will show you; however it is very cheap".

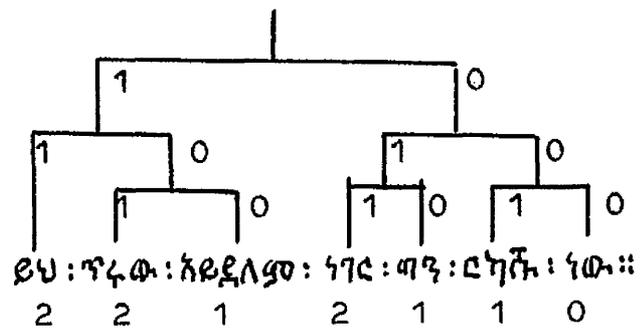
Of the 35 attempts to translate this sentence at least fifteen suggest failure of comprehension of the English sentence. If immediate constituent structural diagrams for the English original and the two variant Amharic renderings are analysed, using Yngve's hypothesis, two considerations emerge: firstly the English sentence has a mean depth of 2.0, highest of the seven sentences, and secondly, by rejecting the Amharic construction in አንድ፣ and adopting ነገር፣ግን፣ instead the mean depth of the Amharic structure is reduced from 1.7 to 1.3.



Mean depth 2.0



Mean depth 1.7



Mean depth 1.3

In fact of the 35 examinees 27 selected the construction ነገር፡ግን፡, three used ሳይሆን፡ and only three አንድ፡. Two students used no contrastive marker.

2. The influence of information load. We have already seen that in English, where information loads are equal, sentences of differing types are of similar opacities. Thus apparent complexities, as measured by marks awarded in translation exercises, cannot be compared unless allowance is made for the effect of the respective information loads.

The information loads were calculated for the seven sentences both in English and in Amharic, using essentially the same principles. It will be noted that in each case the Amharic employs approximately twice as many "morphemes" as the equivalent English sentence.

Sentence number	Information load (from English)	"Morpheme" count (from Amharic)
a	14	27
b	12	24
c	15	25
d	14	29
f	9	15
g	10	25
h	11	30

To illustrate the general principles followed in the computation the analysis for the English of sentence (d) is given here:

Sentence (d)

Please/you/stay/imperative/in/your/place/plural/until/
step-forward/I/tell/future/you14 items

and similarly the analysis for the Amharic of the same sentence:

Sentence (d)

እገኝ-/አቶ:/ ወደ:/ራት/አንድ/ person/plural/imperfect/ተጠይቅ/አሰኝ-:/
1st person/singular/imperfect/ፈቀደ: /-ለ- /አቶ/ ደረሰ: / በ-: /
relative/perfect/2nd person/plural/ አለ: /በ-/-ት:/ imperative/
2nd person/plural/ቆየ: /.....29 items

When the table is examined it is at once noted that, with the exception of sentence (f), there is no large variation in the "morpheme" count for the Amharic sentences: the average figure for the six is just under 27, with a spread of from 24 to 30. So that, although the information load must be considered in relationship to the results for sentence (f), it should not be a significant factor affecting the ability to generate the other sentences.

Further examination of the results of this count shows that there appears to be no relationship between information load, either as measured in the English original or in the Amharic equivalent, and the sentence difficulty as measured by the marks awarded by the Examiner. This simply confirms what has

already been noted in the earlier, experimental, part of this study, that in comprehension it is sentence structure that plays the decisive role.

3. The effect of sentence structure. It would clearly be of great value to have some objective measure of the complexity of a given sentence and Yngve's hypothesis professes to provide such a measure. It was decided to examine the structures of the seven sentences and to construct Yngve immediate constituent diagrams for them, to calculate the mean depth of embedding of each and to compare these figures with the measure of difficulty indicated by the marking of the translations.

The principles observed in following Yngve's theory were as follows:

- a. Basic Amharic sentence structure is subject + predicate, the latter including such items as direct and indirect objects. In the binary system of re-write rules the subject may be zero but the predicate may not.
- b. Clauses are treated as transforms of kernel sentences and are therefore subject to essentially the same form of analysis as is applied to the full sentence.
- c. Prepositions and subordinating conjunctions are treated as words and not as affixes. Where the preposition or conjunction has two parts it is treated as a discontinuous morpheme¹.

¹ "A model and an hypothesis for language structure", p.455.

The mean depth figures for the seven sentences are here tabulated, together with the total marks awarded by the Examiner to the 35 examinees for the individual sentences. The sentences are listed in decreasing order of difficulty as this is indicated by the Examiner's marking.

Sentence number	Marks awarded	Yngve mean depth
h	52½	2.9
c	58	3.4
d	59½	2.0
f	61	2.4
b	71	1.8
g	71	2.8
a	73½	2.0

With the exception of sentence (g) there is a measure of agreement between the sentence complexity, as measured by Yngve's mean depth figures, and the sentence difficulty, as measured by the test marking. The agreement is suggestive only, but the exception provided by sentence (g) requires some explanation if Yngve's hypothesis is to be allowed any validity at all when applied to the Amharic language.

It is, of course, a common feature of the copula sentence that the relative construction should displace the copula from sentence final position. Goldenberg quotes¹ two apposite examples:

እኔ : እኀ : አይደለሁም : ቤቱን : ያቃጠል ሁች ።

"It is not I that have set the house on fire"

and

አንድ : ትንሽ : ድናጊት : አይደለችምን : ትልቁን : ተራራ : የምታፈርሽ ?

"Is it not a small piece of dynamite that blows up
the great mountain?"

Of course the noun/verb ambivalence of the relative facilitates this displacement process, but the present analysis would suggest that more than style is involved: the sentence is thereby made less opaque to comprehension and less difficult to generate.

If, then, we think of sentence (g) not as the cumbersome structure of mean depth 2.8, which most examinees were attempting to generate, but as the re-ordered structure with mean depth 1.4, then this figure may be brought into general agreement with the marking of the Examiner as indicating the measure of difficulty of the sentence.

¹ "Studies in Amharic syntax", pp. 16-17.

This summary consideration of the process of translation as a measure of complexity, and the attempt to examine the validity of Yngve's mean depth concept as applied to Amharic, suggests that, for the relatively brief sentences discussed, the figure may provide a meaningful measure of complexity. Certainly we have a better measure of agreement between the mean depth figures and complexity as measured by student performance than was obtained with other hypotheses.

It is, however, clear that the use of the translation approach to measuring sentence complexity is open to many objections: we are dealing with two, not one, languages, marking must always be in some measure subjective, certainty of the form of translation required cannot be attained, there is no control of the examinees (although tests could be devised for selected subjects), and so on.

One interesting fact emerges from the present chapter. The most difficult sentence, that given the lowest number of marks by the examiner, was sentence (h), using contrastive አንዲት: . This same construction proved markedly opaque to comprehension in the testing of sentence B13 in chapter six, above¹.

¹ p. 212

CHAPTER EIGHT: CONCLUSIONS

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Amharic sentences may be expanded, through subordination and co-ordination processes and by the addition of qualifying elements and phrases, to provide structures of considerable length. Examination of six novels indicates that sentences consisting of more than 25 words may comprise as much as ten percent of the overall sentence complement. Analysis of the structural elements of some 600 Amharic sentences shows that the average sentence of 14.6 words would include, in addition to the verb of the main clause, one subordinating particle, one relative construction and one further verbal form, either an infinitive or a gerund.

Within such an assembly of syntactical units there is clearly facility for the construction of sentences of not inconsiderable complexity. It is true that length may add to the difficulty of comprehension of the information conveyed in a sentence. This is effected both by increasing the total of information to be retained by the auditor and by adding to the possible total of syntactical complexities which may contribute to sentence opacity. But length itself is not the decisive factor in determining sentence opacity. A short sentence may be more opaque than a long sentence.

The testing shows that even in very extended sentences only exceptionally do we find the Ethiopian unable to grasp in a general way both grammatical structure and semantic content. However, while a general grasp must be conceded, it is also clear from the experiments that very frequently the auditor may fail to perceive detailed structure, or accurately to comprehend the total information load of the extended sentence. But, as we have already seen, this opacity is not necessarily to be attributed to sentence length as such, but to the specific sentence structures made possible by the process of expansion.

Of particular importance in the process of obscuring the structure of the sentence from the auditor is the feature of suspense. This feature may operate on the word or phrase, which waits for its completion or qualification through a succession of bridging items. Suspense may feature in association with co-ordination, or a subordinated clause may be held in suspense until eventually the principal clause is generated. The suspense process is in many cases aggravated by the word order customary in Amharic, subject first and verb in sentence final position. This makes possible sentences in which the subject is separated from the verb with which it is in concord by sequences of twenty or even more words.

Where the feature of suspense is present in a sentence which displays a number of clauses comprehension may seriously be

affected if the subjects of the clauses differ the one from the other, or if the time references of the clauses vary. In such sentences, and where normal processes of sentence generation are involved, anacoluthon is more likely to occur than in linear sentences of comparable length. The cyclic structure, typified by subordination of clauses, by change of subject from clause to clause and by the consequent suspense feature will usually prove notably opaque to perception both of grammatical structure and of semantic content.

The grammatical markers, which determine and indicate sentence structure to follow, appear to be of less importance to the process of comprehension than the auditor's overall ability to perceive gross structure. The presence of accusative -ን፣, of adversative አንጂ፣, of an interrogative pronoun does not appear materially to assist the auditor in comprehension if he has failed to perceive the sentence structure as a whole.

An intuitive recognition of the possible lack of cohesion of some elements of the extended sentence appears to be suggested by the use of epexegetis. This feature of Amharic presents a convenient means of re-introducing an indirect or direct object into the end-structure of a sentence, as a pronominal suffix to the verb, if it was generated initially so early in the sentence that its relationship to the verb may possibly be

either misunderstood or overlooked. We have here a very useful process of information re¹inforcement and the auditors who were tested indicated their awareness of its value. 7

The process of re¹inforcement may possibly also be significant in comparing the mode of auditing of a sentence. For sentences of average complexity no significant difference in comprehension appeared between those who listened to the sentence and those who read it. However, where the sentence was notably more opaque to comprehension than average, it appeared that reading the sentence provided a visual re¹inforcement that materially assisted in comprehension. If it is recognized that, in reading, most Ethiopians move their lips, forming the words, then we may deduce that reading may provide the reader with most of the information signals of the listener (except for the valuable interpretative factor of intonation) as well as the signals of the visually perceived word contours. 7

Although in comparing auditor reaction to favourite pattern and minority pattern sentences of simple structure auditors, predictably, prefer the former, sentence type is not important in determining sentence opacity for the extended sentence. Even here the auditor will, again predictably, project the end structure so as to produce a favourite pattern sentence if this choice

is available to him. But where a minority pattern end structure is unambiguously required no marked difficulty appears to be experienced in providing it.

In selecting the main verb for an expanded sentence the auditor is guided by collocational requirements and semantic considerations, including the time reference. The selection of simple or compound main verbs appears to be highly idiosyncratic. Individual subjects may indicate a decided preference for simple or for compound verbs. The tendency, however, appears to be clearly towards favouring the simple verb at the expense of the compound verb. This tendency is not to be associated with ability in Amharic, but where choice is possible there appears to be a decided preference for the simple verb.

Throughout the study a continual problem was the absence of any objective measure of sentence complexity. Several possible criteria were examined such as the information load per word and the total number of verbal elements, but no correlation between such features and apparent complexity, as indicated by auditor response, could be found. Yngve's hypothesis claims to provide an objective measure of sentence complexity for English. It is not impossible that for the simple Amharic sentence the hypothesis may provide a simple measure of structural complexity.

APPENDICES

- Appendix 1: Test results, Set A (chapter five)
Appendix 2: Test results, Set B (chapter six)
Appendix 3: Yngve's hypothesis (chapter seven)

APPENDIX 1: TEST RESULTS, SET A (chapter five)

a. Group W These students READ the sentences from wall charts.
Eight of the original group of students were eliminated as they arrived after testing had begun.

Sentence no:	A1	A2	A3	A4	A5	A6
Question no:	1 2	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
Student W1		-	c			a
2						
3		b	c c c	c		a
4		b -			c b	a
6						
7					c	
8			a		c	
9			c c		c	
Total errors:	- -	1 1 2	2 3 2	- - 1	- 4 1	- 3 -

Sentence no:	A7	A8	A9	A10	A11
Question no:	1 2 3	1 2 3	1 2 3	1 2	1 2 3
Student W1	c	a			c
2		a		b	
3	b c	a			c b
4	b	b			c
6		b	a		
7		b		b	
8	c	b		b	c
9	b	a b			c
Total errors:	- 3 3	2 1 6	- - 1	1 2	* 5 1

b. Group X This group LISTENED to the sentences from a tape recording.

Four of the group were eliminated as they arrived after testing had begun.

Sentence no:	A1	A2	A3	A4	A5	A6
Question no:	1 2	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
Student X1	c	b	c			
2	c	b b			c	
3			c c	a b	c	
5	c		c c		c	
7		c	a			
8	c		a		b	
9		c b			c b	a a
10	c		b	a	a	a a
13			c		c	
14	c	c	c b	c		
15	c	a c a	c c		c c b	
16						
Total errors	4 3	2 4 4	5 2 6	2 - 2	3 1 7	1 2 1

Group X (continued)

Sentence no:	A7	A8	A9	A10	A11
Question no:	1 2 3	1 2 3	1 2 3	1 2	1 2 3
Student X1	b c	- - -			
2		a		b	b
3		b		a b	c
5		a			c -
7				b	
8		c		b	
9		c b		a	a c c
10	b c	b		a	c
13	b c	b		b	c b
14	c	b		a c	
15	b	b	c c		b
16		c b			
Total errors:	- 4 4	3 5 7	- 1 1	5 5	1 6 4

c. Group Y This group READ the sentences from wall charts

Sentence No:	A1	A2	A3	A4	A5	A6
Question No:	1 2	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
Student Y1			c			b
2						
3						
4		a -			c	
5						
6				a c	c	a
7						
8						
9						
10		b		c		
11		c			b	
12					c	
13						
14					c	
15		a				
16		c b				a
Total errors:	- -	1 2 4	- 1 -	1 - 2	1 3 1	1 1 1

Group Y (continued)

Sentence no:	A7	A8	A9	A10	A11
Question no:	1 2 3	1 2 3	1 2 3	1 2	1 2 3
Student Y1					
2	b	a			
3		a c			
4		a c			c
5		b b			
6		c b			b
7					
8	a c	b			
9					b
10	b	b			c c
11		c b b			c
12	b		a		b
13	c				
14					
15	b				
16	b	b			c
Total errors	- 6 2	4 6 5	- 1 -	- -	- 5 3

d. Group Z This group LISTENED to the sentences from a tape recording

Sentence No:	A1	A2	A3	A4	A5	A6
Question No:	1 2	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
Student Z1						
2		a			b	
3					c	
4		a	c			
5				c		
6		b			c	a
7					c	
8			a			b
9			c		c	b
10						
11	c	a			c	b
12			c		c	
13					c	
14						b
15				c		
16		a	a		a	
17						
18	c	a	c			b
19					c	c
20						a
Total errors:	1 2	2 1 4	1 4 1	- - 4	7 2 6	- 4 -

Group Z (continued)

Sentence no:	A7	A8	A9	A10	A11
Question no:	1 2 3	1 2 3	1 2 3	1 2	1 2 3
Student Z1				b	
2				b	
3	a	a b		c	c
4	c	a b			
5		a b			
6				b	c
7					
8	b			b	c
9		c c			
10					
11		c		b	
12					
13		c		b	
14	b	b	c		
15					b
16			c		
17		c b			b
18	c				c
19		c			
20					
Total errors	- 3 2	5 6 3	- - 2	- 7	- 6 -

APPENDIX 2: TEST RESULTS, SET B (chapter six)

Set B: The testing results The verbal form supplied in the original text is given at the head of each column. Groups W and Y READ the sentences and groups X and Z LISTENED to them from a tape recording.

Group W

Student no.	Sentence number						
	B1	B2	B3	B4	B5	B6	B7
	ነው:	ናቸው:	ነው:	ገልጻል:	አቀረቡ:	አለችኝ:	ጠቅላዋል:
W1	ነበረ:	ነበራቸው:	ነው:	አውቀዋል:	አቀረቡ:	አለች:	አስታወቀ:
2	ነው:	ነበራቸው:	ነው:	+ገንዘቡ:	አቀረቡ:	አለች:	ገለጸ:
3	ነው:	ነበራቸው:	ነው:	አውቀዋል:	አገልግላለች:	ሰለጠነች:	+ገልጻል:
4	ነበረ:	ናቸው:	ነው:	ያሳያል:	አገልግላለች:	{ያገባሁት} አለች:	ገልጿል:
5	ነው:	ያሳያል:ነበረ:	ነው:	+ገንዘቡ:	ወሰኑ:	አለች:	ገለጸ:
6	ነው:	ናቸው:	ነው:	ገለጸ:	አቀረቡ:	አለች:	ገለጸ:
7	ነው:	ናቸው:	ነው:	ገለጸ:	አቀረቡ:	አለች:	ገለጸ:
8	ነው:	ናቸው:	ነው:	ገለጸ:	አቀረቡ:	አለ:	ገለጸ:
9	ነው:	ነበረ:	አቅርባለሁ:	ታወቀዋል:	አቀረቡ:	+ገናኘኝ:	አስረድታለሁ:
10	ነው:	ናቸው:	ነው:	አሳሳቡ:	አደረጉ:	ብላለች:	አስታወቀ:
11	ነው:	ነበረ:	ነው:	+የገንዘብታል:	አቀረቡ:	-	አጠቃላይ:
12	ነው:	አላቸው:	ነው:	አስታወቀዋል:	አደረጉ:	ብላለሁ:	+የገናኘዋል:
13	ነው:	ነበራቸው:	ይሆናል:	አስታወቀ:	አደረጉ:	ብላለሁ:	አስታወቀዋል:
14	ነው:	ነበረ:	ይሆንዋል:	ተረጉሙ:	አቀሩ:	ብላለች:	ገልጻል:
15	ሕዝብ:	ነበረ:	ነው:	አረጋገጡ:	አቀረቡ:	አለች:	አረጋገጡ:
16	ነው:	ያሳያል:ናቸው:	ነው:	ያስታወቃል:	ሰጥተዋል:	አለችኝ:	+ገልጻል:

Group W (continued)

Student no.	Sentence number					
	B8	B9	B10	B11	B12	B13
	ቶሏል፡	ተቻለ፡	ተገኝቷል፡	ተደርጋል፡	ተፈጻሚነቷል፡	የለባቸውም፡
W1	ያስፈልጋል፡	ቸለፍል፡	አስተገኘም፡	ተፈልጋል፡	ተደረገባቸው፡	አለብኝ፡
2	ያስፈልጋል፡	ቸለፍል፡	አስተገኘም፡	ተደርጋል፡	ተቀበለ፡	አይገባም፡
3	ይገባል፡	ተቸለፍል፡	ተገኝቷል፡	ተደርገዋል፡	ተፈጻሚነቷል፡	አይገባቸውም፡
4	ቶሏል፡	ቸለፍል፡	ተገኝቷል፡	ያስፈልጋል፡	ተቀብሏል፡	አገዛዥም፡
5	ይቻላል፡	ቸለፍል፡	ተገኝቷል*፡	ያስፈልጋል፡	ተቀብሎል*፡	የለበቅም፡
6	ቶሏል፡	ቸለፍል፡	ተገኝቷል፡	አጭርገዋል፡	ተቀበለ፡	የለብኝም፡
7	ቶሏል፡	አስተቻለም፡	ተገኝቷል፡	አደረገ፡	ተፈጻሚነቷል፡	የለብኝም፡
8	ይገባል፡	ቻሉ፡	ተገኘ፡	አደረገ፡	ተፈረደባቸው፡	የለብኝም፡
9	ይቻላል፡	አሰቡ፡	ተገኝተዋል፡	ጠይቀዋል፡	ተሰጠው፡	የለባቸውም፡
10	ቸለፍል፡	ቸለፍል፡	ተገኝቶአል፡	አደረገ፡	ተፈረደባቸው*፡	አያቸውም፡
11	ቶሏል፡	ሲሉ፡ ነው፡	ተገኝቷል፡	ለማድረግ፡ ነው፡	-	-
12	ቸለፍል፡	ተናገረዋል፡	ታያቸው፡	ተደርገዋል፡	ደርሰበታል፡	የለበቅም፡
13	ቻለ፡	ቸለፍል፡	ተገኝተዋል፡	አጭርገዋል፡	ተፈረደባቸው፡	የለባቸውም፡
14	ቸለፍል፡	አቅደዋል፡	ተገኝቶአል፡	ያስፈልጋል፡	ተቀብሎአል፡	የለብኝም፡
15	ቸለፍል፡	ቻሉ፡	አገኙት፡	አደረገ፡	ተፈረደባቸው፡	አያስፈልገኝም፡
16	ቸለፍል፡	ቸለፍል፡	ተገኝተዋል፡	አጭርገዋል፡	ተፈረደባቸው፡	የለበቅም፡

* Although forms marked with an asterisk are clearly incorrectly spelled they are recorded as written by the auditors

Group X

Student no.	Sentence number						
	B1	B2	B3	B4	B5	B6	B7
	ነው፡	ኖቸው፡	ነው፡	ገልጸዋል፡	አቀረቡ፡	አለችን፡	ጠቅሰዋል፡
X1	ነው፡	ነው፡	ነው፡	ታወቀ፡	አቀረቡ፡	አለች፡	ነው፡
2	ነው፡	ነበሩ፡	ነው፡	ታወቀ፡	አቀረቡ፡	አለች፡	ተነገረ፡
3	ነው፡	እቴጌ፡	ነው፡	ገለጸ፡	አደረገ፡	አለች፡	ነው፡
4	ነው፡	ኖቸው፡	ነው፡	ታውቋል፡	ታሰበ፡	አለችት፡	ብለዋል፡
5	ነበረ፡	ነበሩ፡	ነው፡	ተረጋግጧል፡	ቀረጧል፡	ብላለች፡	ገልጸዋል፡
7	ነው፡	አላቸው፡	ነው፡	ይገልጻል፡	አላቸው፡	አለች፡	አለ፡
9	ነው፡	ነበሩ፡	ነው፡	ይታወሳል፡	አቀረቡ፡	ብላለች፡	አስታወቁ፡
10	ነው፡	ነበሩ፡	ነው፡	አስረዱ፡	አደረጉ፡	አለች፡	አረጋግጡ፡
11	ነው፡	ነበሩ፡	ነው፡	ነው፡	አቀረቡ፡	ነበረ፡	ገለጹ፡
13	ነው፡	ነበሩ፡	ነው፡	አወቁ፡	አቀረቡ፡	ነበረ፡	ተነገረ፡
14	ይነገራል፡	ተነግሮላቸዋል፡	መገንዘብ፡	ተረድተዋል፡	ሰጥተዋል፡	ተረድቻለሁ፡	ተግባራዊ፡
15	ነው፡	ኖቸው፡	ነው፡	ተረድተውታል፡	ወሰነዋል፡	-	ተረድተዋል፡
16	ነው፡	ኖቸው፡	ነው፡	ተግባሩ፡	አደረጉ፡	ብላለች፡	አለበት፡

Group X (continued)

Student no.	Sentence number					
	B8	B9	B10	B11	B12	B13
	ቸሏል፡	ተቻለ፡	ተገኝቷል፡	ተደርጋል፡	ተፈጻሚነቷል፡	የለባቸውም፡
X1	ተደረገ፡	ፈለጉ፡	አገኙ፡	አደረገ፡	ተቀበለ፡	የለበትም፡
2	ቸሎአል፡	ቻሉ፡	ተገኙ፡	ተደረገ፡	ተፈረደበት፡	የለበትም፡
3	ይቸላል፡	በቻለ፡ ነበር፡	ሆኗል፡	ተደረገ፡	ተፈጸመበት፡	የለበትም፡
4	ቸሏል፡	ቸሏል፡	ተገኝቷል፡	ነው፡	ተፈረደበት፡	የለብኝም፡
5	ይቸላል፡	ይፈልጋሉ፡	ተገኝቷል፡	ያስፈልጋል፡	ተፈጻሚነቷል፡	የለበትም፡
7	አልቻለም፡	ቸለዋል፡	ተገኝቶአል፡	አደረጉ፡	ተፈረደበቷል፡	የለብኝም፡
9	ቻለ፡	ነበረ፡ አሉ፡	ተገኙ፡	አደረጉ፡	ተቀበለ፡	የለብኝም፡
10	ነው፡	ይጠጣራሉ፡	ነበር፡	ነው፡	ተሰጠው፡	አይገባቸውም፡
11	ቸሏል፡	ፈለጉ፡	ተገኝቷል፡	ያስፈልጋል፡	ተፈጻሚነት፡	የለበትም፡
13	ይገባል፡	ያስቸላል፡	ሆነ፡	ያስፈልጋል፡	ተፈረደበት፡	አያቸውም፡
14	ያስፈልጋል፡	ይፈልጋሉ፡	ተገኝቷል፡	ተነግሮል፡*	ተፈረደበቷል፡	አያስፈልግም፡
15	ቸሏል፡	ሞክረዋል፡	ተገኝቷል፡	ተጠራቷል፡	ተፈረደበቷል፡	የለብኝም፡
16	ቸሏል፡	ቸለዋል፡	ተገኝቷል፡	አደረጉ፡	ተቀብሏል፡	የለብኝም፡

Group Y

Student no.	Sentence number						
	B1	B2	B3	B4	B5	B6	B7
	ነው:	የቸው:	ነው:	ገልጻዋል:	አቀረቡ:	አለችኝ:	ጠቅሰዋል:
Y1	ነው:	ነበሩ:	መሆን አለባቸው:	አወቁ:	አቀረቡ:	አለች:	አሰረዱ:
2	ነው:	የቸው:	ነው:	ይታወቃል:	አቀረቡ:	አለች:	ገለጹ:
3	ነው:	ነበራቸው:	ነው:	አሰታወቁ:	አቀረቡ:	አለች:	አሰታወቁ:
4	-	ነበራቸው:	ነው:	ተገንዝበውታል:	አቅርበዋል:	አለች:	ገለጹ:
5	ነው:	ነበሩ:	ነው:	ተናገሩ:	አቀረቡ:	አለችኝ:	ገልጻዋል:
6	ነው:	ያለቸው የቸው:	ሥራው ነው:	-	ወሰኑ:	ብላችሁ፣ ገራችሁ:	ተረጋግጧል:
7	ነው:	ነበሩ:	ነው:	ተረዩ:	አቀረቡ:	ብላለች:	አሰገንዝባለች:
8	ነው:	የቸው:	ነው:	እናውቃለን:	ሰጥቷል:	ብላለች:	ገልጿል:
9	ነው:	የቸው:	ነው:	ነው:	አደረጉ:	አለች:	አረጋግጧል:
10	ነው:	ነበሩ:	ነው:	ተረዩ:	አቀረቡ:	ብላለች:	አሰረዱ:
11	ነው:	የቸው:	ነው:	አረጋገጡ:	አደረጉ:	-	አሰታወቁ:
12	ነው:	ነበሩ:	ነው:	አረጋግጠዋል:	አደረጉ:	አለች:	አሰገንዝባለች:
13	ነው:	ነበሩ:	ነው:	አወቁ:	አቀረቡ:	ብላለች:	ገለጡ:
14	ነው:	ነበሩ:	ነው:	ገለጹ:	አቀረቡ:	ታለፈች:	ገልጸዋል:
15	ነው:	ነበሩ:	ነው:	ያሰረዱት:	አቀረቡ:	አለችኝ:	ገለጡ:
16	ነው:	ነበሩ:	ነው:	አሰታወቁ:	አቀረቡ:	አለችኝ:	አሰታወቁ:

Group Y (continued)

Student no.	Sentence number					
	B8	B9	B10	B11	B12	B13
	ቸሏል፡	ተቻለ፡	ተገኝቷል፡	ተደርጋል፡	ተፈጻሚነቷል፡	የለባቸውም፡
Y1	ቻለ፡	በቁ፡	ታይቷል፡	ገልጸዋል፡	ተፈጻሚ፡	የለበትም፡
2	ቸሏል፡	ይጠጠራሉ፡	ተገኝቷል፡	ከድርጉዎች፡	ተፈጻሚነት፡	የለብኝም፡
3	ቻለ፡	ቻለ፡	ተገኘ፡	አስተዳራጉ፡	አገኘ፡	አያስፈልግም፡
4	በቅቷል፡	ቻለዋል፡	ተገኝቷል፡	አሳሳቢዎች፡	ተፈጻሚነት፡	የለበትም፡
5	ቻለዋል፡	በቅተዋል፡	ተገኝቷል፡	ያሰፈልጋል፡	ተፈጻሚነቷል፡	የለበትም፡
6	ተደርጋል፡	ተቸሏል፡	-	አሳሳቢዎች፡	ተቀብሏል፡	አይገባኝም፡
7	ይቻላል፡	ቻለዋል፡	ተገኝተዋል፡	አሳሳቢ፡	ተፈጻሚነት፡	የለበትም፡
8	ቸሏል፡	ቻለዋል፡	ተገኝቷል፡	አድርጋል፡	ተፈጻሚነቷል፡	አያኝም፡
9	ቸሏል፡	በቁ፡	ተገኝቷል፡	ኑሁ፡	ተፈጻሚነት፡	የለብኝም፡
10	ቸሏል፡	በቅቷል፡	ተገኝቷል፡	ይጠጠሉ፡	ተፈጻሚነት፡	የለብኝም፡
11	ቸሏል፡	በቅቷዋል፡	ተገኝቷል፡	አሳሳቢዎች፡	ተፈጻሚነት፡	የለብኝም፡
12	ቸሏል፡	ተቻለ፡	ተገኘ፡	አደረገ፡	ተፈጻሚነት፡	የለብኝም፡
13	ቸሏል፡	በቅተዋል፡	ተገኝቷል፡	ኑሁ፡	ተቀበለ፡	የለበትም፡
14	ቸሎአል፡	አስቸሏል፡	ተገኝቶአል፡	አድርገዋል፡	ተፈጻሚነቷል፡	የለብኝም፡
15	በመቻሉ፡ ኑሁ፡	ሰለተቻለ፡ ኑሁ፡	ተገኝቶአል፡	አደረገ፡	ተቀበለ፡	የለበትም፡
16	ቸሏል፡	ቻለዋል፡	ተገኝቷል፡	አድርገዋል፡	ተፈጻሚነቷል፡	የለበትም፡

Group Z (continued)

Student no.	Sentence number					
	B8	B9	B10	B11	B12	B13
	ቸሏል፡	ተቻለ፡	ተገኝቷል፡	ተደርጋል፡	ተፈጽሞበታል፡	የለባቸውም፡
Z1	ይቻላል፡	ቻሎ፡	ተገኝቷል፡	አደረጉ፡	ተፈጽመበት፡	አይገባም፡
2	ቸሏል፡	ተቸሏል፡	ተገኝቷል፡	ተደረገ፡	ተፈጽመ፡	አይገባም፡
3	ተደርጋል፡	ቻለናል፡	ተገኝቷል፡	አስገዳዝበዋል፡	ተሰጥቶታል፡	አይገባውም፡
4	ቸሏል፡	ተቸሏል፡	ተገኝቷል፡	ተደርጋል፡	ተቀብሏል፡	አይገባም፡
5	ቸሏል፡	ቻለዋል፡	ተገኝቷል፡	ጥረዋል፡	ተፈጽመበት፡	አይገባኝም፡
6	ይገባል፡	ይቻላል፡	ይገኛል፡	ያገለግላል፡	ተቀብሏል፡	አይገባኝም፡
7	ቸሎክል፡	በቅተዋል፡	ተገኝቷል፡	አስገዳዝበዋል፡	ተቀብሎክል፡	አይገባም፡
8	ቻለ፡	ተመቸ፡	ተገኝተዋል፡	ተደረገ፡	ተፈጽመበት፡	የለብኝም፡
9	ቻለ፡	ፈለጉ፡	ተገኘ፡	አደረጉ፡	ተፈረደበት፡	የለበትም፡
10	ቸሏል፡	በቅተዋል፡	ተገኝቷል፡	ይፈልጋሉ፡	ተፈጽመበት፡	የለበትም፡
11	ቸሎአል፡	ይጠጣር፡*	አግኝቶታል፡	አንደኛውን፡	ተፈረደበት፡	አይገባኝም፡
12	ቸሏል፡	ቻለዋል፡	የሚገመት፡	ያስፈልጋል፡	ተፈጽመበት፡	የለበትም፡
13	ቸሏል፡	በቅተዋል፡	ተገኝቷል፡	አድርገዋል፡	ተቀበለ፡	የለበትም፡
14	ተደረገ፡	ይኖራሉ፡	ተገኘ፡	ይፈልጋሉ፡	ተፈጽመ፡	አይገባም፡
15	ቸሏል፡	ይጠጣራሉ፡	ተገኝቷል፡	አደረጉ፡	ተፈጽመበት፡	የለበትም፡
16	ቸሏል፡	ቻለዋል፡	ተገኝቷል፡	አድርገዋል፡	ተፈጽሞአል፡	የለበትም፡
17	ቸሏል፡	ቻለዋል፡	ተገኝቷል፡	አድርገዋል፡*	ተፈጽመበት፡	አይገባቸውም፡
18	ይቻላል፡	ይፈልጋሉ፡	ተገኝቷል፡	ነው፡	ተፈጽሞበታል፡	አይገባም፡
20	ይቻላል፡	ይፈልጋሉ፡	ተገኝተዋል፡	ተደርገዋል፡	ተሰቀለ፡	የለብኝም፡

Group Z

Student no.	Sentence number						
	B1	B2	B3	B4	B5	B6	B7
	ነው:	ናቸው:	ነው:	ገልጸዋል:	አቀረቡ:	አለችኝ:	ጠቅሰዋል:
Z1	ነው:	ናቸው:	ነው:	ተረድተዋል:	አቀረቡ:	ነበር:	ገልጹል:
2	ነው:	ናቸው:	ነው:	አዩ:	አቀረቡ:	ነበር:	አስታወቁ:
3	ነው:	አላቸው:	ነው:	ይገልጽልኛል:	ቀርቧል:	አለችት:	ገልጸዋል:
4	ነው:	ናቸው:	ነው:	አረጋግጠዋል:	አቀረቡ:	አለች:	ገልጸዋል:
5	ነው:	ናቸው:	ነው:	አሳሰቡ:	አቀረቡ:	አለች:	አረጋገጠ:
6	ነው:	አላቸው:	ነው:	ነው:	ነው:	ነበር:	አስገንዘበዋል
7	ነው:	ናቸው:	ነው:	እናውቃለን:	አቀረቡ:	አለች:	ገልጠዋል:
8	ይታወሳል:	ነበራቸው:	ነው:	አስታወቀዋል:	ቀረበ:	ነበር:	አሰረዩ:
9	ነበር:	ናቸው:	ነው:	አወቁ:	አደረጉ:	አለች:	አስታወቁ:
10	ነው:	ነበራቸው:	ነው:	አወቁ:	አቀረቡ:	አለችኝ:	ገልጸዋል:
11	ነበር:	-	-	ነገር:	አቀረቡ:	-	አስታወቀዋል
12	ነው:	ናቸው:	ነው:	-	አቀረቡ:	-	ተናገሩ:
13	ነው:	ነበሩ:	ነው:	አወቁ:	አቀረቡ:	አለችኝ:	አስታወቋል:
14	ነው:	ናቸው:	ነው:	አንዳንድ:	አቀረቡ:	አለችት:	ተናገሩ:
15	ነበሩ:	ናቸው:	ነው:	ነው:	አቀረቡ:	ነበር:	ነው:
16	ነው:	ነበሩ:	ነው:	ተገነዘቡ:	አቀረቡ:	ነበር:	አስረድተዋል
17	ነበር:	ነበራቸው:	ነው:	ተረዩ:	አቅርበዋል:	አለች:	አረጋግጧል:
18	ነው:	ነበራቸው:	ነው:	አወቁ:	አቀረቡ:	ነበር:	ገልጹል:
20	ነው:	ናቸው:	ነው:	ታወቀዋል:	አቅርበዋል:	አለችኝ:	ገልጸዋል:

APPENDIX 3: YNGVE'S HYPOTHESIS (chapter seven)

In 1960 Victor H. Yngve proposed¹ an hypothesis concerning the process of sentence generation and the concept of structural complexity. The principles involved are those of a two-stage memory and a linear concept of the process of sentence formation. It is assumed by Yngve, and for the purpose of this study his assumptions are applied to Amharic, that an immediate constituent framework can be used to provide an adequate description of language, and that transformational rules can be formulated to include the entire range of syntactical structures.

The two stage memory system is assumed to consist of an immediate memory, with a very limited capacity, and a permanent memory with a virtually infinite storage capacity. The immediate memory can store between 5 and 9 items. This figure may be compared with, for example, the number of items in a list which can be read and then copied

¹ "A model and an hypothesis for language structure", PAPS, 104, 5(1960), pp. 444-466, and a more popular exposition on the same theme in Scientific American, 206,6(June, 1962), pp. 68-76. His theory, and in particular his concept of "depth of embedding", has been used by several investigators including one study relevant to the present investigation, E. Martine and K.H. Roberts, "Grammatical factors in sentence retention", JVLVB, 4(1965), pp. 107-111.

or recited without error, after a single reading.

When a sentence is generated each word in some sense determines structure to follow. And with the generation of each word the immediate memory must store such new structural features as the new word may have introduced, while retaining structural features already required by preceding words. The immediate memory, then, holds in its store the overall structure to follow, while the permanent memory supplies specific words, affixes, morphemes to fit the structure.

In general we may characterise Yngve's theory of expansion as a binary theory, in which one item at a time is expanded either into a two part extension or into realisation as a word. Thus the item N for noun may be expanded to give N + D, noun plus definite article, or may be realised to yield, say, "man".

The important contribution of the concept of an immediate memory with a limited storage capacity is its relevance to syntactical breakdown. This is explained by the immediate memory being required to store more information than it is able accurately to do, anacoluthon following.

We shall consider the application to Amharic of simple rules for the generating of a sentence, using a slightly simplified form of Yngve's formula.

Let S mean Sentence; other abbreviations have the following meanings:

NPms	A masculine singular noun phrase
VP	A verb phrase
Dms	The masculine singular demonstrative pronoun
Nms	A masculine singular noun
Ims	The masculine singular indefinite article
INPms	An indefinite noun phrase, masculine singular
Vms	A verb in the masculine singular

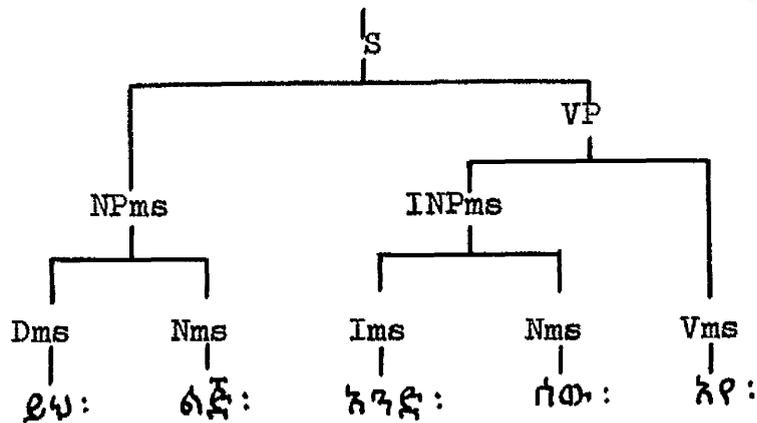
Transformational rules may then be written:

- | | | | | | | | |
|----|------|---|-----------------|----|-------|---|-----------|
| 1. | S | → | NPms + VP | 6. | INPms | → | Ims + Nms |
| 2. | NPms | → | Dms + Nms | 7. | Ims | → | አንድ : |
| 3. | Dms | → | ይህ ÷ ያ : | 8. | Vms | → | አየ : |
| 4. | Nms | → | ልጅ ÷ ሰው ÷ ቀጣሪ : | | | | |
| 5. | VP | → | INPms + Vms | | | | |

Applying the rules, one at a time, we obtain the following sequence:

1. S
2. NPms + VP
3. Dms + Nms + VP
4. ይህ : + Nms + VP
5. ይህ : + ልጅ : + VP
6. ይህ : + ልጅ : + INPms + Vms
7. ይህ : + ልጅ : + Ims + Nms + Vms
8. ይህ : + ልጅ : + አንድ : + Nms + Vms
9. ይህ : + ልጅ : + አንድ : + ሰው : + Vms
10. ይህ : + ልጅ : + አንድ : + ሰው : + አየ ::

The immediate constituent structure of the sentence thus generated may be displayed in the usual way:

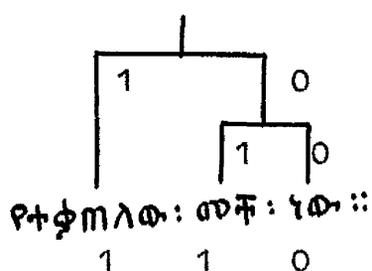


"This child saw a man".

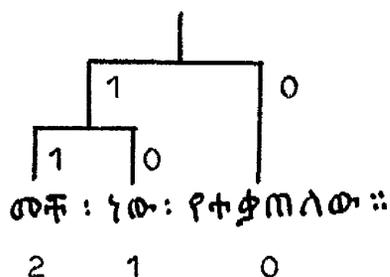
Yngve points out that for any pair of words the left hand member is more deeply embedded, has more items to follow it, than the right hand member. The two branches may be numbered 0 and 1 to represent this difference relatively. The absolute measure of embedding, however, is related to the total number of items still unexpanded when a given word is generated. Thus if the ten steps involved in generating this simple sentence are examined it will be noted that when the word ፊህ: was generated at step 4 there were two items left unexpanded, Nms and VP. The word is said to have a depth of embedding of 2. At step 5, however, when the word ገጌ: was generated only one item was left not expanded, VP, so that ገጌ: has depth 1. When the verb አየ: was generated there was no item awaiting expansion and this word has depth zero.

which a grammatically or semantically more significant item is brought into the place of maximum transparency. Thus considering the sentence የተቃጠለው፡መቼ፡ኅው፡, "When was it burned?"¹ we note that the structure may be modified so that the copula is displaced from sentence final position by the semantically more important relative to yield መቼ፡ ኅው፡ የተቃጠለው፡. Thus also ኅይ፡አገ፡ኅው፡የምለው፡, "I tell you to come here!", and አንቺን፡አገ፡ ኅው፡የምጠራው፡, "Here, it's you I'm calling!"².

The structural diagrams show that by a small increase in the mean depth of embedding the verbal noun is brought into the position of maximum transparency:



Mean depth 0.7



Mean depth 1.0

¹ G. Goldenberg, SAS, p.17

² Both examples are from YG, p.22.