

**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

**THE IMPACT OF AMHARIC PHONOLOGY ON LEARNING  
ENGLISH PRONUNCIATION: THE CASE OF GONDAR  
COLLEGE OF TEACHERS EDUCATION**

**BY**  
**TADESSE W/GEBREAL**



**JUNE, 2012**  
**ADDIS ABABA**

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**SCHOOL OF GRADUATE STUDIES**  
**COLLEGE OF SOCIAL SCIENCE AND HUMANITIES**  
**FACULTY OF HUMANITIES**  
**DEPARTMENT OF LINGUSITICS AND PHILOLOGY**

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**A Thesis Submitted to the School of Graduate Studies of Addis  
Ababa University in Partial Fulfillment of the Requirements of the  
Masters of Art in Linguistics**



**June, 2012**

**Addis Ababa**

**Addis Ababa University**  
**School of Graduate Studies**  
**Department of Linguistics and Philology**

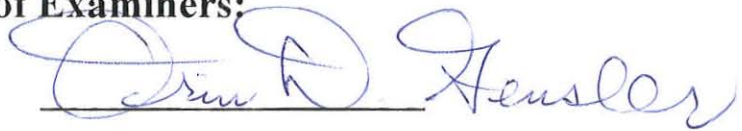
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## Abstract

The main objective of this study was to find out the difficulties Amharic learners of English may have in pronouncing certain English sounds, words and sentences both on segmental and suprasegmental levels.

According to Contrastive Analysis (CA), in learning the pronunciation of a second/ foreign language, we tend to pronounce the foreign sounds, words, and sentences according to the phonological system of our mother tongue. In the realm of phonology, the difficulty of a second language depends on the difficulty both of the sounds themselves and of their combinatoric possibilities.

To verify this claim of CA empirically, 61 native speakers of Amharic were given two tests, a discrimination and a production test. The discrimination test was aimed at finding out the difficulties these subjects have in discriminating between sounds in minimal pairs, stress (both on word and sentence level) and intonation (rising and falling). The objective of the production test was to find out whether the subjects could produce the sounds, words and sentences which they discriminated or otherwise.

The results of this study reveal that the subjects were found to be better at discrimination than at production. Most of the sounds that caused problems for the subjects were categories that are non-existent in Amharic such as: /θ, ð, ŋ, v, p, æ, ʌ, ɔ, i:, u:, a:/, diphthongs, consonant clusters, stress placement (both on word and sentence levels) and intonation (Wh-question, commands, final alternative, and certainty/agreement). In some cases, sounds, stressed words, or intonation contours which were easily discriminated and produced in one position were found to be troublesome in another position.

In general, areas of differences between the phonological systems of the two languages caused the greatest difficulties for the subjects.



### Acknowledgements

I owe a great deal of gratitude to Prof. Orin Gensler, my advisor, for his unreserved and valuable comments and encouragement. He was always willing to help me whenever I needed his assistance. He was friendly and critical at the same time. He also shared my feelings and showed me how to be strong and become successful in the academic world by working hard. He taught me about how to analyze data by looking for patterns, reasons and generalizations; analyzing data does not mean mere repetition of the data presented in a table. Professor, your unreserved encouragement, constructive criticism, and useful comments were really great in the preparation of this paper from the very beginning to its completion.

I am very grateful to Dr. Derib Ado for he gave me some relevant materials including his PhD Dissertation that are very important for this thesis work and for future use. I would like to express my heartfelt thanks to my family, especially to my younger brother, Teshager W/Gebreal, who helped me in shouldering the responsibilities of the whole family and taking care of my mother even without being told. Whenever I asked him to do so, he was always ready to support me financially and materially.

I am also grateful to all my friends who directly or indirectly encouraged me during all my years of study. My special thanks must go to Workie Musa, Miss Liz, Solomon Getahun, and Teferi Mulugeta who helped me in the transcription of the production test. Anteneh Wulolign, Yohannes Acheneffe, and Simachew Bantigeñ deserve my gratitude for their continuous moral support. I must also thank my best friend Megbaru Esayas who did the painstaking job of transferring of my salary every month for two solid years.

Finally, my thanks should be extended to second-year English major students of Gondar College of Teachers Education for their cooperation in taking the two tests without any complaints.



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**Common Symbols and Abbreviations**

/ / Phonemic symbol

[ ] Phonetic symbol

< > Graphic/Orthographic representation

( ) Absent categories

C Consonant

V Vowel

' Primary stress marker

+ Existent feature

-Non-existent feature

# Number of subjects

\_ No significant problem

~ Pair of sounds

σ Syllable

^ Somebody pronounced it right

\*Nobody pronounced it correct

< Everybody pronounced it correctly

# CHAPTER ONE

## Introduction

### 1.1. Background of the Study

English has become the most wide-spread of the very few languages that can qualify as truly international. This is a fact that we have to live with and take advantage of since English has to be taught as such.

Although English is a second/ foreign language for many Ethiopians, it is taught for practical use of communication; it serves as the language of instruction in some elementary and in all secondary and higher education and as a necessary link with resources beyond the country's boundaries. In line with this, Bender states, "English has a negligible number of native speakers in Ethiopia, but at the present it has a crucial position in education, commerce, government and international communication, and from this point of view it can be regarded as a major Ethiopian languages" (Bender 1976:12).

English as taught in most schools, colleges and universities in Ethiopia is not usually taught with emphasis on good pronunciation. Both teachers and students are typically content to talk "with an Amharic accent."

The phonological difference between the learner's native language (Amharic in this case) and English is a major problem for students learning English as a second language. This can be seen not only in the individual sounds but also in combination of sounds and features such as syllable, stress, intonation and rhythm (Kenworthy 1987:4).

Phonemes operate to distinguish one word from another. Thus, in English the initial consonants of the word *bin-din-kin-sin-tin-win* form a series of phonemes. In the same way, the vowels in the words *bean-bin-ban-bone-bane* form a series of vowel phonemes. The problem of making correct distinctions between phonemes occurs because in listening to the target language, we hear the foreign sounds.

Pronunciation is noted as more than a matter of consonants, vowels and diphthongs. This feature refers to the other dimension of pronunciation which entails stress and intonation.

Suprasegmental features, therefore, are taken as indispensable component in pronunciation teaching and learning (Okita 1999).

## **1.2. Statement of the Problem**

Contrastive linguistics has shown that in learning the pronunciation of a second language, we tend to pronounce the foreign sounds according to the phonological system of our mother tongue, which means that we replace them by the nearest sounds in our mother tongue. This is because, in listening to the target language, we tend to hear the foreign sounds as if they were native sounds, i.e. to hear only those components of the foreign sounds that match the sounds of our source language.

Moreover, contrastive linguistics asserts that the chance of L2 learning problems occurring will increase proportionally to the linguistic difference between L1 and L2: linguistic differences give rise to L2 interference from the mother tongue. On the other hand, the chance of L2 learning problems occurring decreases proportionally to the absence of linguistic differences between L1 and L2. In line with this, Mackey writes: "The similarities and differences between two languages may be phonology, grammar, vocabulary, stylistics or graphic. In the realm of phonology, the difficulty of a second language depends both on the sounds themselves and on their ability to combine" (Mackey 1965:109).

Understanding of phonemic distinctions becomes most important at those points where the phonemic systems of the native language and the foreign language do not coincide. The inability to distinguish between phonemes also shows up in written work where it can easily lead to spelling and even grammatical errors. The cure for pupils who write 'living' for 'leaving' is not only to explain to them the difference of meaning, but also (and especially) to improve their pronunciation.

It is confusing if a speaker does not make any distinction between sounds which change meaning, for if a speaker pronounces 'man' and 'men' in the same way; the result is most likely confusion. Thus it is necessary first of all to make sure that the basic sounds of the language are properly pronounced by the learner of English.

Another most important thing to be considered in regard to pronunciation is supra-segmental features. Supra-segmental aspects of pronunciation refer to the patterns of rhythm and the intonation contours that accompany sound sequences (Celce-Murcia & Olshtain 2000:31). These supra-segmental features are also called prosody (Brown 1994). In speaking a foreign language, the ability to correctly process and to appropriate the target prosody contributes greatly to the listener's conversational abilities and his/her understanding of what the speaker is trying to say (Celce-Murcia & Olshtain 2000:31). Similarly, Ur emphasizes the significance of supra-segmental features in communication and notes that "a learner may enunciate the sounds perfectly and sound foreign because of unacceptable stress and intonation" (1996:47). Difficulty in using correct stress patterns will cause communication breakdown. In connection to this, Roach (1983:91) said "incorrect stress placement is the major cause of intelligibility problems for foreign learners, and is therefore a subject that needs to be treated very seriously." Intonation errors also miscommunicate the speaker's stance, politeness, and intention. Therefore, because of their communicative importance, prosodic features are an essential component in pronunciation teaching (Taylor 1993; Pennington & Richards 1986).

As English and Amharic are two independent and unrelated languages, their phonemic systems are different. Therefore, certain English phonemes are hard nuts to crack for Amharic learners of English.

Hence, this study will attempt to reveal the difficulties encountered by Amharic learners of English in pronouncing English segmental phonemes (consonants, vowels, diphthongs, consonant clusters, syllable structure, vowel length, and consonant non-gemination) and the supra-segmentals (intonation, word stress, and sentence stress).

### **1.3. Aims of the Study**

The aims of the study are to:

- Make a comparative study of segmental and supra-segmental features of English and Amharic.
- Identify the pronunciation problems of Amharic-speaking learners of English
- Explain how these pronunciation problems are in part caused by applying Amharic phonological patterns to English.

- Classify the pronunciation errors according to their types (phonetic, phonemic, distributional, etc.).

#### **1.4. Significance of the Study**

Understanding the problems faced by Ethiopian learners of English in general, and of Amharic learners of English in particular, is of paramount importance. To this effect, this study may:

1. Help to better appreciate the difficulties Amharic learners of English have in the pronunciation of certain English phonemes.
2. Help learners of English to take the problem of pronunciation seriously.
3. Help to make some pedagogical and linguistic recommendations as regarding teaching and learning English as a second/foreign language to Amharic learners of English, and
4. Serve as a preliminary work for further investigation in this area of study.

#### **1.5. Scope of the Study**

The study deals only with how Amharic segmental and supra-segmental features can affect students' learning of pronunciation. It will try to find out the major difficulties Amharic learners of English may have in pronouncing English phonemes, stress, intonation and variants by comparing the phonemic and the supra-segmental systems of the two languages. Moreover, this study is limited to Gondar College of Teachers Education second year English major students. The comparison will thus be done only on the Gondar dialect of Amharic, and even of English!, ignoring the other major dialects of Amharic (Addis Ababa, Gojjam, Wollo and Menz).

## CHAPTER TWO

### Phonetic Generalities and Review of Related Literature

#### 2.1. English Segmental and Supra-segmental Phonemes: Generalities

##### 2.1.1. English Segmental Phonemes

According to Lado (1964:70), "Pronunciation is the use of a sound system in speaking and listening." Phonemes are the basic elements used in the pronunciation of words. The 44 phonemes of English are the basic contrasts which make it possible for us to keep or longer utterance separate from every other, /li:v/ from /lɪv/. But each phoneme may be represented by different sounds in different positions. This suggests two stages in the learning of pronunciation. The first is to be able to produce the 44 vowels, diphthongs, and consonants which are different, so that the words and longer utterances of English do not at any rate sound the same, so that /li:v/ and /lɪv/ sound different. The second has to do with supra-segmentals (see sec. 2.1.2).

In an English phonemic alphabet, we include [b] and [p] to represent all the occurrence of sounds recognized by English speakers as [b] and [p]. This does not mean that all pronunciations of [p] are the same. In the word *pin*, the initial sound is aspirated, that is followed by a release of air. In the word *spin* it is not. But the difference between aspirated p and non-aspirated p makes no difference to meaning. They are rather called the allophones of [p].

The first thing to be mentioned in pronunciation is sounds. There are of three types: consonants, simple vowels and diphthongs (Kenworthy 1987). Similarly, Tench (1981) refers to their importance as all words in the language are indeed presented in speech by consonants, vowels and diphthongs.

Harmer (2001) states that learners of a language need to know the different sounds of the language and their features if they are to understand what is being said to them and be understood in their turn. It is important to emphasize that articulation needs to be experienced to be understood, and that this understanding should lead to an awareness of how sounds are actually produced (Dalton & Seidlhofer 1994: 17).



In English, the position of stress can change the meaning and class of a word, as in the case of *import* /'ɪmpɔ:(r)t/ (noun) and *import* /ɪm'pɔ:(r)t/ (verb), and so forms part of the phonological composition of the word (Roach,2009). It quite often happens in English that the stress pattern of a word is different when the word occurs in particular contexts compared with its stress pattern when said in isolation: for example, the word *fifteenth* in isolation is stressed on the second syllable /'fɪfti:nθ/, but in *fifteenth place* the stress is on the first syllable/ 'fɪfti:nθ/ ( Roach 2009). Practicing placement of stress within sentences is also essential if learners are to become good listeners and communicators, since the same sentence can take on different meanings depending on where the speaker chooses to place the primary stress.

Intonation often conveys emotions and attitudes. Other linguistic connections have also been claimed, in English, between intonation and grammar (Roach 2009).

## **2.2. Amharic Segmental and Supra-segmental Phonemes: Generalities**

### **2.2.1. Amharic Segmental Phonemes**

A set of 38 phonemes, 7 vowels and 31 consonants, makes up the complete inventory of sounds for the Amharic language. The following are the 27 consonant sounds of Amharic: /p, t, tʃ, k, ʔ, b, d, dʒ, g, p', t', tʃ', k', f, s, ʃ, h, z, ʒ, s', m, n, ɲ, l, r, w, j/. In addition to these sounds, there are some complex labialized sounds which include /k<sup>w</sup>, g<sup>w</sup>, q<sup>w</sup>, h<sup>w</sup>/ (Baye 1994:14).

In addition to the five vowels common among many languages /i, u, e, o, a/, Amharic has two central vowels, mid central /ə/ and high central /i/, the latter with a mainly epenthetic function. The epenthetic vowel /i/ plays a key role in syllabification.

Like other languages, Amharic also has its own typical phonological and morphological features that characterize it. The following are some of the striking features of Amharic phonology that gives the language its characteristic sound when one hears it spoken: the very weak indeterminate stress; the presence of glottalic, palatal, and labialized consonants; the frequent gemination of consonants and central vowels; the absence of vowel length; and the use of the automatic epenthetic vowel (Bender 1976).

Amharic uses the Ge'ez (or Ethiopic) writing system which originated with the ancient Ge'ez language. In this system the symbols are consonant based but also contain an obligatory vowel marking, in seven "orders": Cə, Cu, Ci, Ca, Ce, Ci, Co. Most symbols represent consonant-vowel combinations, but the sixth order may represent either Ci or the plain vowel-less consonant C. The Amharic writing system is largely phonetic. According to Leslau (1995), there is more or less a one-to-one correspondence between the sounds and the graphemes.

Gemination in Amharic is one of the most distinctive characteristics of the cadence of the speech, and also carries a very heavy semantic and syntactic functional weight. Unlike the English language in which the rhythm of the speech is mainly characterized by stress (loudness), rhythm in Amharic is mainly marked by longer and shorter syllables depending on gemination of consonants, and by certain features of phrasing (Bender & Fulass 1978). In Amharic, all consonants except /h/ and /ʔ/ may occur in either a geminated or a non-geminated form.

Amharic gemination is either lexical or morphological. As a lexical feature it usually cannot be predicted from the written form. For instance, ገና may be read as /gəna/, meaning 'still/yet', or /gənnə/, meaning 'Christmas'. From this, one can say that gemination differentiates lexical meanings occurring in minimal pairs, and also differentiates grammatical meanings occurring in minimal pairs. For example, /məsam/ 'to kiss', and /məssam/ 'to be kissed'

In Amharic vowel length is not contrastive. That is, there is no distinctive vowel length in Amharic.

The maximum numbers of consonants in a cluster is always two. Amharic consonant clusters generally occur in medial or sometimes in final positions of a word. But, some clusters can occur word initially too; those that do occur initially are of the type stop plus liquid (Bender 1974:21). However, an optional helping vowel can be inserted between the liquid and the preceding stop consonant. For example, /graŋŋ/ 'left-handed', /giraŋŋ/ 'left-handed'.

### **2.2.2. Amharic Suprasegmentals**

Cowley et al. (1976) say the following about the stress of Amharic. "Stress in Amharic runs with an almost even distribution on each syllable. It is often difficult to decide where the stress

actually falls in Amharic words” (Cowley et al. 1976). Similarly, Armbruster (1908: 30) as cited in Alemayehu Haile (1987:64) states that “stress accent (i.e. word stress) in Amharic is in general less marked than in English.”

After explaining the features of tonal and intonational languages, Alemayehu Haile classified Amharic as intonational language. He states: “Amharic is an intonational (a stress-accent) language. As an intonational language, we expect it to behave in such a way that intonational features associated with a given utterance type (declarative, interrogative, etc) determine the position of high pitch- which is exactly what they do” (Alemayehu Haile 1987:63). Moreover, Alemayehu claims that the shift of the high pitch in Amharic words with different intonational patterns makes the accentual system difficult to handle (Alemayehu Haile 1987:64). Depend on the dialect under study, pitch in Amharic sentences is often characterized by a strong pitch-rise at the end of phrases, giving the language a characteristic melody.

### **2.3. Previous Studies**

A number of contrastive studies, at phonological level, have been carried out between English and many languages of the world. These studies have revealed that where there are differences between the native language and English, foreign/second language learners of English encounter difficulties in pronouncing phonemes which are non-existent in the native language. In these studies, phonemes of the first language and English are compared to predict the errors that are likely to crop up in the process of learning English as a second or a foreign language.

It is, therefore, worthwhile to take some of these studies and see the difficulties indicated by researchers.

#### **i. English and Spanish**

According to Mackey (1965) Spanish speaking learners of English had some difficulties in identifying some English phonemes. In English, /d/ and /ð/ are different phonemes; in Spanish there are sounds which are similar to those used in English to represent these phoneme- we can write them **d** and **ð**; but in Spanish these two sounds are allophones of the same phoneme- when the phoneme occurs between vowels it is pronounced as **ð**, as in **naða** ‘nothing’, but when it

occurs in initial position, it is pronounced as **d**, as in **dos** 'two'. This will cause difficulty for the Spanish speaker because although he has more or less the same sounds as in English, he is not able to use them independently and whenever an English /d/ occurs between vowels he will be in danger of using /ð/, confusing e.g. *breeding* /bri:diŋ/ and *breathing* /bri:ðiŋ/, and whenever English /ð/ occurs in initial position, he will be in danger of using /d/, and confusing e.g. *they* /ðei/ and *day* /deɪ/.

## **ii. Arabic and English**

Certain phonemes which are found in English are absent in Arabic. These absent categories may trouble Arabic-speaking learners of English. To this end, O'Connor presents the following:

In Arabic /b/ and /v/ may be confusing, /b/ being used for both, but /v/ may occur in Arabic in borrowed names. /p/ and /b/ are confused, /b/ being used for both. /t/ and /d/ are dental stops in Arabic. Stops are not generally exploded in the final position in Arabic and strong stops are often unaspirated.

Regarding vowels, for Arabic speakers, the English vowels /ɪ/ and /e/ are confused. /æ/ and /a:/ are not entirely independent in Arabic and there is danger of replacing one by the other in some places (O'Connor 1976: 168-69).

## **iii. French and English**

According to O'Connor (1976:171-72), /θ/ and /ð/ do not occur in French and are replaced by /s/ and /z/, or less commonly by /f/ and /v/. /h/ does not occur in French and is omitted when French people pronounce English. /p, t, k/ are not aspirated in French, which may lead to confusion with /b, d, g/ in English. /t/ and /d/ are dental stops in French.

As to vowels, English /i:/ and /ɪ/ are confused, /i:/ being used for both. /æ/ and /ʌ/ are confused, /ʌ/ being used for both. The British English diphthong /əʊ/ ("long o") is replaced by the non-diphthongal pure vowel [o] in French *beau*, which causes confusion with British /ɜ:/ . Vowels are usually short in French, compared with English.

#### **iv. English and Afan-Oromo**

A contrastive study has been conducted by Italo Beriso (1988) on English and Oromo segmental phonemes with implications for teaching English as a foreign language. The results of his study reveal that most of the sounds that cause problems for the subjects are sounds that are non-existent in Afan-Oromo such as /θ, ð, ŋ, æ/, diphthongs, and consonant clusters. He asserts that in some cases, sounds which are easily discriminated and produced in initial position are found to be problematic in final position.

The above-mentioned languages have been taken as examples to show the difficulties faced by speakers of different languages. Although contrastive studies, at phonological level, have been made between English and many of the major languages of the world, little work has been done in this regard in Ethiopia. A number of studies have been carried out between Amharic and other Ethiopian languages. For example, Leulseged Erkihun (1981) has made a contrastive analysis of the phonologies of Gedeo and Amharic. But little has been done between English and Ethiopian languages. An exception is the contrastive study that has been carried out by Italo Beriso (1988) between Oromo and English segmental phonemes. In his study, the researcher deals with the prediction of errors Oromo native speakers make when learning English at the level of segmental phonemes, and classifies the errors according to their types.

As regards Amharic no contrastive study has been carried out so far between English and Amharic that includes both segmental and supra-segmental levels. However, Tadesse Beyene (1966) has carried out a contrastive study between English and Amharic segmentals.

#### **2.4. Theoretical Framework**

There are at least two different approaches that have been used by linguists for the identification of possible learning problems in second language acquisitions. These are Contrastive analysis (CA) and Error analysis (EA).

According to different writers like Gluth (2003), Contrastive Analysis (CA) is the systematic study of pairs of languages with a view to identify their structural differences and similarities. Error Analysis (EA), on the other hand, focuses on actual errors in production: it assumes that

errors indicate learning difficulties and that the frequency of a particular error is evidence of the difficulty learners have in learning the particular form. The main difference between CA and EA is that the former tries to predict errors one may make in L2, while the latter empirically identifies errors seen in L2 production.

The theoretical foundations of Contrastive Analysis Hypothesis (CAH) were formulated in Robert Lado's (1957) Linguistics across Cultures. Lado believes that "those elements that are similar to the [learner's] native language will be simple for him, and those areas that are different will be difficult" (Lado 1957: 2). According to CAH learning problems and areas of interference should occur especially at points where the two languages differ. This would mean that CAH claims that the bulk of the errors made in learning the L2 can be attributed to "interference" by the L1.

Lado (1957) states that individuals tend to transfer the forms and meanings and the distributions of forms and meanings of their native language and culture to the target and culture—both productively, when attempting to actively speak the language and to act appropriately in the culture, and receptively, when attempting to grasp and understand the language and culture as practiced by natives.

In error prediction, a systematic comparison between the structures of L1 and L2 is carried out. Then, errors are predicted based on the assumption that wherever there are differences between structures, there will also be difficulties for learners of the target language.

Lulseged Erkihun (1981:7), in his contrastive phonological analysis of Gedeo and Amharic, summarizes the hypotheses suggested by various linguists, concerning the prediction of phonological errors in acquisition, as follows.

1. A new phoneme in L2 constitutes a difficulty for L1 speakers.
2. Learning a completely new phoneme is much easier than learning one which is partially in a similar class in the target language.
3. All new phonemes are not equally difficult to learn; some sounds by their very nature are intrinsically more difficult than others, both in articulation and/or in perception.
4. Learning a new phonetic difference between the native and the target language is sometimes more difficult than learning phonemic differences.

5. Differences in allophonic variations of the corresponding phonemes, and differences in the distribution of these allophones, may result in wrong perception of the same phonemes through confusion with others, as well as wrong pronunciation.

As the 1970's dawned, CA was being discredited on many levels. According to Abbas (1995), CA's basic weakness, for which it has often been criticized, lies in its overwhelming emphasis on just one type of error, i.e. "interference". As a reaction to this type of criticism, error analysis (EA) has often been suggested as an alternative.

EA approach claims that CA cannot serve as an adequate tool for identifying all areas of difficulty for learners of a second language. The proponents of EA argue that errors made by a foreign language learner should first be listed, and only then should the conflicts between the structures of the native and target languages be appealed to for discovering the source of interference. This means that the proponents of EA are happy to make use of CA, but not for prediction of errors, only for explanation of observed errors. In rejecting the idea of error prediction, EA proponents observe that errors which cannot be predicted by means of Contrastive Analysis can nevertheless be discovered empirically by error analysis. However, there is criticism of EA as well. Some writers, like Schachter (1974), state that since error analysis (EA) registers only the errors actually produced by learners of L2, it cannot be an adequate basis for the identification of all potential learning problems.

From the above discussion and arguments, we can understand that both CA and EA have their own merits and shortcomings. It is, therefore, my intention to use the two approaches (CA and EA) complementarily. The thesis is intrinsically an application of EA, since it empirically determines what errors are actually made. On the other hand, most (though not all) of these errors can readily be explained by CA, as will be seen.

## CHAPTER THREE

### Research Methodology

#### 3.1. Methods of Data Collection

The subjects of the study were second year English major students of Gondar College of Teachers Education who are native speakers of Amharic. The total number of the study group was 61 students. The entire target group was studied (i.e. no sub-sample was taken from this small and manageable number of students).

Data was obtained by giving two tests, namely a discrimination test and a production test, administered in that order. All the students were given both tests. Prior to the administration of the tests, the subjects were oriented on the objectives of the tests and how to use tape recorders and were requested to give authentic responses as required in the tests.

In the discrimination test, minimal pairs involving English consonants, vowels, diphthongs, word-pairs with Final -C vs. Final -Ci and consonant clusters were given, paying due attention to areas thought to be problematic for Amharic learners of English. This test was aimed at verifying the difficulties these respondents may have in discriminating between English sounds that are closely related in their manner and/or place of articulation, and voicing. Besides, the subjects were given words, phrases and sentences to discriminate where two or more stress/intonation patterns exist, with a difference in meaning (e.g. 'subject vs sub'ject). At sentence level, the subjects were asked to discriminate which part of the sentence (or the entire sentence) is said with a rising or falling intonation, as presented on the tape. There were 137 items in all. Each word and sentence was spoken slowly by a native speaker of American English, and was said twice. The subjects had an answer sheet giving two (written) alternatives for the spoken form. They were to indicate the words they heard in each pair by underlining. Note also that each word-pair was recorded twice, in reverse orders (e.g. ab vs. ba); half the subject heard one version, half heard the other. For the intonation part they were asked to choose 'R' for rising and 'F' for falling intonation contour.

In the production test, the students were asked to pronounce printed English sentences. The test was designed to test minimal pairs in context, i.e. all minimal pairs were embedded in full sentences and not presented in isolation. In this way, the students produced words, phrases and sentences in their own (relatively) natural ways. In the analysis particular attention was paid to production of stress and/or intonation. The test was aimed at finding out whether the respondents can produce what they have previously discriminated (or failed to discriminate). In order to avoid confusion, the sentences in each part were numbered. Each subject was asked to record his/her sex, age, department, and code number before reading the sentences.

### **3.2. Method of Data Analysis**

After administering the two tests, the next step was to analyze the responses given to the first test, and to transcribe and analyze the words, phrases and/or sentences recorded in the second test by each subject.

The responses given to the discrimination test were carefully marked and analyzed to find out what difficulties the subjects have. There were 137 items in all.

The results of the production test were transcribed and compared with the same utterances as pronounced by a native speaker of American English, to find out the difficulties the subjects had in producing these minimal pairs, words, phrases and sentences. There were 109 sentences in all, containing the items in context. One native American English speaker, three (linguistics) classmates with good English skills, and I (the researcher) listened to the recordings of each subject, and gave each subject a score of one point for each correctly said item (a total of 113).

After that, the pronunciation errors made by the subjects were classified according to their types. Moreover, the results of the two tests were compared to see if there is any correlation between discrimination and production using a rank order correlation coefficient. The mean scores and standard deviations of each test were computed and compared.

## CHAPTER FOUR

### Description of Amharic and English Phonology: Details

#### 4.1. Description of Amharic Phonology

##### 4.1.1. Amharic Segmental Phonemes

Amharic has 38 segmental phonemes, of which 31 are consonants and 7 are vowels (Baye 1994, Getahun 1997:3).

##### 4.1.1.1. Amharic Consonant Phonemes

Consonant sounds can be described in terms of three basic features: place of articulation, manner of articulation, and voicing (Baye 1994:17, Getahun 1997:3, Davies & Elder 2004:29).

Of the 31 Amharic consonant phonemes, /p', p, s'/ are found in words that are borrowed from other languages. /p'/ is found in Greek-derived words like *p'ap'as*, *t'arap'eza*, *p'et'ros*. /p/ occurs in "European" words like *police*, *pasta*, *parlama*, *politika*, *pant*, *ampol*. The consonant sound /s'/ tends to occur in words borrowed from Ge'ez. Those people who do not have knowledge of Ge'ez and some people who live in rural areas tend to replace it with /t'/; for example, they may say /t'əlot /, /t'əbəl/, /t'əhay/ instead of /s'əlot /, /s'əbəl/, /s'əhay/ respectively (Getahun 1997:7, Baye 1994, Mulugeta 2001:9).

I have adopted the model of description used by Getahun Amare (1997), because of its clarity and brevity.

Manner/place of Articulation	Bilabial	Labio-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop/plosives</b> VI	p(ፕ)		t(ጥ)		k(ክ)	ʔ(ዕ)
Vd	b(ብ)		d(ድ)		g(ግ)	
Ejective	p'(ጸ)		t'(ጥ)		k'(ቀ)	
<b>Fricatives</b> VI		f(ፍ)	s(ስ)	ʃ(ሽ)	k <sup>w</sup> (ኑ)	h(ሀ)
Vd			z(ዝ)	ʒ(ጃ)	g <sup>w</sup> (ጎ)	
Ejective			s'(ጸ)		k <sup>w</sup> (ቀ)	
<b>Affricates</b> VI				tʃ(ቸ)		
Vd				ɟ(ጅ)		
Ejective				tʃ'(ቸ)		
<b>Nasals</b>	m(ም)		n(ን)	ɲ(ኸ)		
<b>Lateral</b>			l(ል)			
<b>Trill</b>			r(ር)			
<b>Semivowels</b>	w(ወ)			y(ይ)		

Chart 1: Amharic Consonant Phoneme Chart (Adapted from Getahun Amare 1997:5)

Similar presentations of the Amharic consonant phonemes can be found in Baye (1994, 2008), Hayward & Hayward (1999) and Mulugeta (2001).

Amharic consonants are often described as including other, more marginal consonant sounds like the labialization of velars and glottals /g<sup>w</sup>, k<sup>w</sup>, k'<sup>w</sup>, h<sup>w</sup>/ and of other sounds, especially labials /b<sup>w</sup>, f<sup>w</sup>, m<sup>w</sup>, p'<sup>w</sup>, t'<sup>w</sup>/ (Baye 1994; 2008, Lulseged 1981:37, Hayward & Hayward 1999:45).

#### 4.1.1.2. Simple Vowels

Amharic has seven simple vowel sounds, like other Ethio-Semitic languages. These vowel sounds are /ə/, /u/, /i/, /a/, /e/, /i/, & /o/. These vowel sounds occur already in Ge'ez as the seven orders of the fidəl, as Cə Cu Ci Ca Ce Ci Co (Leslau 1995, Bender 1976).

Vowels can be described in terms of the height of the tongue (high, mid and low), the horizontal position of the tongue (front, central and back) and the condition of the lips (rounded and unrounded).

Getahun (1997) puts the seven Amharic vowel phonemes in the following way:

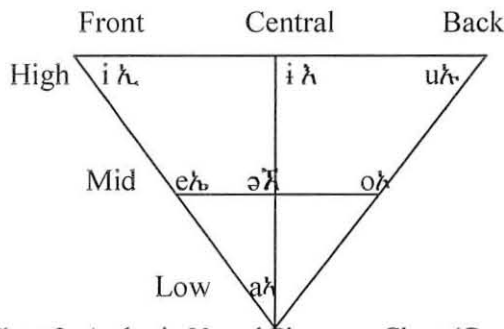


Chart 2: Amharic Vowel Phoneme Chart (Getahun 1997:14)

We can also see Amharic vowel phoneme charts in Baye (1994), Hayward & Hayward (1999) and Mulugeta (2001).

#### 4.1.1.3. Diphthongs

Unlike English in which diphthongs are a main characteristic feature, in Amharic they are marginal at best. Amharic does have phonetic diphthongs; the following sequences are common: /ai/ *ain*, /oi/ *k'oi*, /au/ *mətau*, /ii/ *bii*, /əi/ *təi*, /iw/ *amif'iw* and /əu/ *təu*. The problem is how to analyze them.

#### 4.1.1.4. Phoneme Distribution in Amharic

##### a. Consonant Clusters

All Amharic phonemes occur in all positions with the exception of /ɲ/, which does not occur in word-initial position.

The maximum number of consonants in a cluster is always two. Amharic consonant clusters normally occur in medial and final positions of a word. Some clusters can occur word-initially too; these are of the type stop plus liquid (Cl, Cr; Bender 1974:21). However, an optional helping vowel can be inserted between liquids and the preceding stop consonant. For example:

[grɒɲɲ] 'left-handed'

[gɪrɒɲɲ] 'left-handed'

The final clusters are limited. In final clusters /n, r, s, m, l/ are frequent as the first element in the cluster while /b, d, f, g, k, t, t', s, s' k', p'/ occur only rarely in this position (Bender 1969:34).

Every consonant except /h/ can be combined with any other consonant in medial position of a word. /h/ does not occur as a first member of a cluster, but it does occur as a second member of a cluster in some dialects of Amharic when the pronominal suffix /-h/ follows a consonant (Bender 1969:41).

Amharic does not permit three- or more consonant clusters. In biconsonantal clusters in initial position the language can insert an epenthetic vowel /i/ to break up the cluster.

### **b. Syllabic Structure**

Several researchers have studied the syllable structure of Amharic language and come up with different syllable templates. For example, Alemayehu (1987), Baye (1994), Leslau (1995), Getahun (1997), Mullen (1986), and Leulseged (1981) have identified at least these syllable types:

- |        |         |
|--------|---------|
| a) V   | d) CV   |
| b) VC  | e) CVC  |
| c) VCC | f) CVCC |

Mullen also includes CVV and CVVC as possible syllable types. Mulugeta (2001:29) does not agree with Mullen's inclusion of CVV and CVVC as additional Amharic syllable types, arguing (against Mullen) that vowel length is not phonemic in Amharic.

Mulugeta (2001:31) argues that previous studies of Amharic syllable structure have been based on the surface (phonetic) manifestation of the various syllable types. By contrast, he emphasizes the underlying (phonological) manifestation of the syllable type and finally proposes just three basic syllable types in Amharic: CV, CVC, and CVCC (p. 43).

Here are typical examples of the above six patterns:

1. V     /i-bab/    'snake'
2. VC    /ar-ba/    'forty'
3. VCC   /and/      'one'

4. CV /na/ 'come'
5. CVC /k'es/ 'priest'
6. CVCC /mist/ 'wife'

As Baye notes (2008:27), these patterns include both open (1, 4) and closed (2, 3, 5, 6) syllable types. Baye observes further that the main syllable structure is CVC.

### c. Gemination of Consonants

Gemination (elongation) of consonants is a main characteristic feature of Amharic. All consonants but /h/ and /ʔ/ can be geminated in all positions except word initially; /h/ apparently never geminates at all.

Gemination differentiating lexical meanings can be seen in minimal pairs:

1. [gəna] 'yet'  
[gənnə] 'Christmas'
2. [wana] 'swimming'  
[wannə] 'main'

Gemination can also bring a difference in grammatical meaning:

- [məsam] 'to kiss'  
[məssam] 'to be kissed'

Gemination for morphological reasons frequently occurs on the penultimate radical of three- or more syllable verbs and on the final radical of two-syllable verbs in Amharic. Some classes of verbs geminate the penultimate radical consonant only in the past tense:

- [səbbərə] 'he broke'  
[yisəbral] 'he breaks/he will break'

Some other classes of verbs geminate the penultimate radical throughout the conjugation:

- [fəlləgə] 'he wanted'  
[yifəlligall] 'he wants'

#### d. Vowel Length

Amharic does not have the phonological feature of vowel length (tense and lax vowels) for expressing lexical or grammatical meaning. A vowel can be lengthened phonetically in normal speech for expressing emotional feelings (eg. 'na...!'). But this cannot be compared with the phonemic feature of vowel length in English.

#### 4.1.2. Amharic Supra-segmental Features

##### 4.1.2.1. Stress

A number of studies have been carried out by different scholars on the existence of stress in Amharic. These previous studies state that Amharic stress does not exist phonemically, and that even on the phonetic level, Amharic stress is hardly noticeable (Wedekind & Wedekind 1990: 1-6). Moreover, Amharic stress is often characterized as being instable (Guidi 1892, Ullendorff 1955:197), being difficult to detect (Armbruster 1908:36), playing a lesser role (Richter 1987:47), and being relatively weak and variable in position (Mullen 1986, Alemayehu 1987:23, Hayward & Hayward 1999:45).

Although there has never been an agreement among linguists concerning stress assignment in Amharic, Alemayehu (1997:31) argues that it is possible to establish the locus of stress in any word by using the principle of extrametricality.

Alemayehu's (1987: 24) analysis of lexical stress, generally, seems to be as follows:

1. In the verb stem stress falls on the penultimate syllable and affixes do not have any influence. For example:

'səbbər[-u]                    'they broke'

gə'ləbbət'[-u]                'they overturned'

2. In non-verbal stems, stress falls on the leftmost syllable, but not further left than the antepenultimate: 'bet                    'house'

'dəga                    'highland'

'samuna 'soap'

zə'nəzəna 'pestle'

However, Alemayehu admits that the relative weakness of word-stress in Amharic and the difference in pitch between the same word in 'final' (phrase-final) and 'connected' positions makes the analysis of stress very difficult (Alemayehu 1987). He also mentions that there is instability of accent and stress-accent (word stress). In Amharic, stress is less marked and less prominent as compared with English (Armbruster 1908:30 as cited in Alemayehu 1987:64).

#### 4.1.2.2. Intonation in Amharic

By intonation is meant the way physical or prosodic parameters of fundamental frequency are perceived as regular pitch patterns across a sequence of speech units (Botinis 1998).

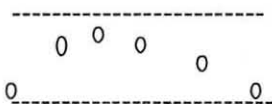
Alemayehu (1987) has labeled Amharic as an intonational language based on the function of pitch. He has also made a detailed description of the intonation contours of different types of declarative, imperative, and interrogative sentences. We may put his description of Amharic intonation in the following way.

##### 1. Declarative intonation in Amharic

With regard to declarative sentences, Alemayehu (1987) identifies five different intonational patterns. The pictures below are taken from Alemayehu.

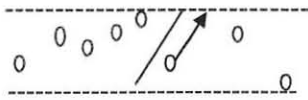
Declarative I is a simple assertive statement. The pitch begins at a somewhat low level, rises on the pre-final word and gradually falls to the speaker's baseline as in:

agərun ləmmədəw 'he got used to the country'



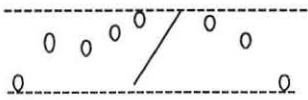
In declarative II, the contour implies the speaker's wish to emphasize the constituent that is associated with the rise. The use of this contour also imparts an element of irony or sarcasm as

in: **lidʒo agərun ləmmədəw**



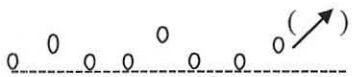
Declarative III shows some kind of urgency on the part of the speaker. Declarative III is similar to Declarative II except that the first syllable of the last word is (already) high, not rising; this is to give emphasis to the last word. For example:

**lidʒo agərun ləmmədəw**



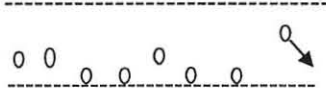
Declarative IV signifies a sense of accepting defeat. It conveys an attitude which seems to say “After all, that is the fact in spite of what I (the speaker) want.” This meaning is achieved by extending the sentence by the addition of sentence-final [a], which otherwise is not part of the sentence. The characteristic feature of the contour is that there is no noticeable high pitch in the entire contour until the rise on the final [a].

**lidʒo agərun ləmmədəwa**



Declarative V shows that what is being said is a repetition of what the speaker had said earlier. It also implies that the speaker is bored with having to say the same thing for a second (or maybe a third) time. Alemayehu (1987) calls this contour an “echo-statement”. As in Declarative IV, the contour starts low and remains low until it reaches the final syllable of the sentence; here it rises to a mid pitch height and immediately falls to the baseline, as in:

**lidʒo agərun ləmmədəw**



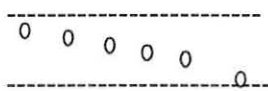
In summary, declarative sentences in Amharic usually have a falling intonation.

## 2. Interrogative Intonation Contours

According to Alemayehu (1987:169), “Interrogative structures are those which express questions that require a reply from the interlocutor.” Amharic interrogatives include Wh-questions and Yes-No questions.

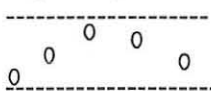
Interrogative wh-words include: who ‘**mann**’, what ‘**min**’, where ‘(**wəda**) **yet**’, how much ‘**min yahil**’, when ‘**məfə**’, why ‘**ləmin**’, for/to whom ‘**ləmann**’, and how many/much ‘**sint**’. For example:

1. mann agər ləmmədə



‘Who got used to the place?’

2. lidzu məfə hedə



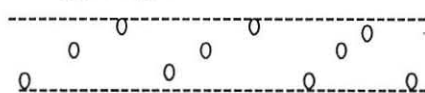
‘When did the boy go?’

As stated by Bolinger (1978:499), Wh-questions in English have the same kind of terminal fall as statements. Alemayehu’s discussion (1987:171) indicates that this is also true for Amharic.

Yes/no questions in Amharic are indicated only by pitch variation, not by any syntactic change. The Yes-No question contour differs from the Wh-question contour. Alemayehu (1987:200) explains several different types of yes/no question intonation.

Question I implies that the speaker is polite, respectful and interested. It also connotes that the speaker is expecting to get a ‘yes’ reply. The intonation contour here is a high-fall.

səwiyyew gənzəbun mənəzzərəw



“Did the man change the money?”

Question II indicates a sense of superiority, arrogance or anger on the part of the speaker; its attitudinal meaning is one of “less involvement and lack of enthusiasm”. This type of yes/no question ends in a high pitch.

səwiyyew gənzəbun mənəzzərəw  
 -----  
 0 0 0 0 0  
 0 0  
 0-----0 0-----  
 “Did the man change the money?”

In Question III, the speaker is repeating a statement that the listener has already made with the assumption of a ‘yes’ response. It is asking the hearer, ‘Do you really mean what you said?’

lidzɔ agərun ləmmədəw  
 -----  
 0  
 0 0 0 0 0 0 0  
 -----  
 “Is it (really) true that the boy got used to the country?”

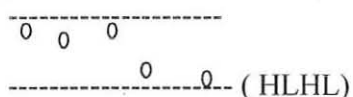
### 3. Imperative

Alemayehu (1987) divides imperatives into two. The meaning of imperative I can be either a request or a command; the distinction will depend on the relationship between the speaker and the hearer. If it is used by a speaker to a friend it may be a request, but if it is used by a manager to his secretary, for example, it may be a command. Here the highest pitch is on the final syllable of the penultimate word and this high pitch is followed by a gradual fall which descends gently until it finally reaches the baseline.

gənzəbun mənziɾ ‘You (Mas. Sg.) change the money!’  
 gənzəbun mənziɾi ‘You (Fem. Sg.) change the money!’  
 -----  
 0 0  
 0  
 0-----0 (LHL)

Imperative II indicates a command with more urgency of purpose and more vigor than with Imperative I. It also suggests some degree of superiority and bossiness on the part of the speaker. The difference between imperative I and imperative II is that the latter begins with a high pitch and the former begins with a lower pitch.

**gənzəbun mənzir** ‘You (Mas. Sg.) change the money!’



Regardless of the type of imperative, we can generally say that imperatives have a falling intonation.

## 4.2. Description of English Phonology

### 4.2.1 English Segmental Phonemes

There are 44 English phonemes in British English and 41 in American English. “Different speakers of English from different parts of the world have different accents, but the differences of accent are mainly the results of differences in the sounds of vowels; the consonants are produced in very much the same way wherever English is spoken” (Italo Beriso 1981:35).

#### 4.2.1.1. English Consonant Phonemes

English (both British and American) has 24 consonant sounds. In my description of English phonemes, I have adopted the model of description used by Howard Jackson (1982), again due to its clarity, brevity and simplicity.

Manner/point of Articulation	Bilabial	Labio-dental	Dental	Alveolar	Palato-alveolar	Palatal	Velar	Glottal
<b>Plosive</b> VI Vd	p b			t d			k g	
<b>Fricative</b> VI Vd		f v	θ ð	s z	ʃ ʒ			h
<b>Affricate</b> VI Vd					tʃ dʒ			
<b>Nasal</b> Vd	m			n			ŋ	
<b>Lateral</b> Vd				l				
<b>Central Approximant</b>	w			r		y		

Chart 3: English Consonant Phoneme Chart (H. Jackson 1982:19)

Similar descriptions can be found in Edwards (1992), McMahon (2002), and Roach (1983).

#### 4.2.1.2. English Simple Vowels (Monophthongs)

There are different vowel systems in different dialects of English. In this paper, I will present the English simple vowel phonemes taken from <http://www.ic.arizona.edu/~lsp/IPA/SSAE.html> for General American English, and for the British English, I will present the simple vowel phoneme chart taken from Ladefoged, P. (2001:36). (There is some variation among different speakers regarding the central and low vowels.)

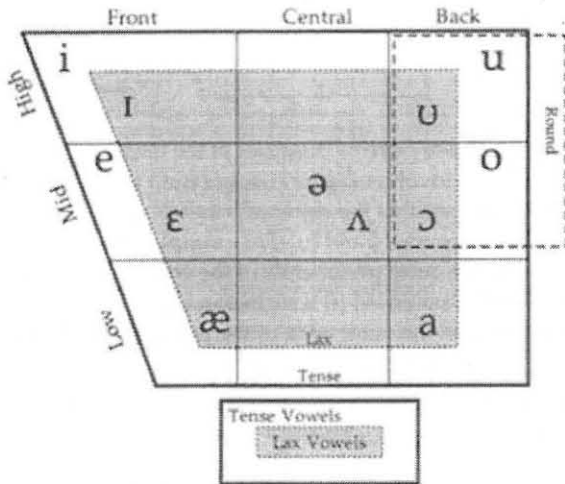


Chart 4: American English Vowel Phoneme Chart

Taken from: <http://www.ic.arizona.edu/~lsp/IPA/SSAE.html>

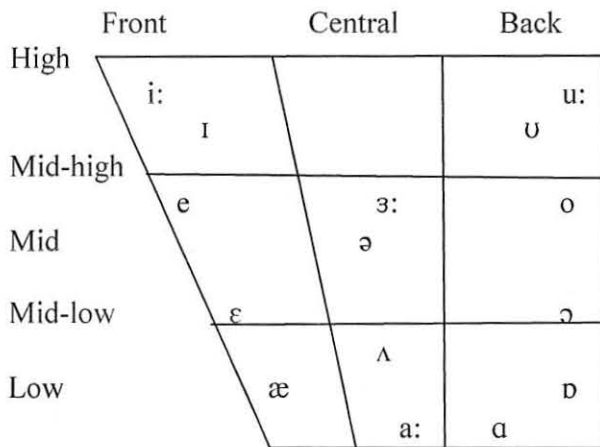


Chart 5: Simple Vowel Phonemes Chart showing the relative vowel qualities represented by some of the symbols used in transcribing English. The symbols [e, a, o] occur as the first elements of diphthongs. (Taken from Peter Ladefoged 2001:36; I added /ə/ from Peter Roach (2001:15).)

### 4.2.1.3. Diphthongs

Diphthongs are vowels in which the tongue starts in one position and moves to another. Diphthongs are very common in English, and count as long vowels. In English, all diphthongs have the first element longer and more prominent than the second (the type known as falling diphthongs; McMahon 2002:73).

There are differences between British English (BE) and American English (AE) in the number of diphthongs. In BE, there are 8 diphthongs, whereas in AE we have five. Both American and British English have /aɪ/, /ɔɪ/, /eɪ/, and /aʊ/ in common, and /əʊ/ in BE is pronounced as /oʊ/ in AE. However, BE has another set of diphthongs which are known as centering diphthongs, as they all have the mid central vowel /ə/ (schwa) as the second element. According to McMahon (2002:73), these centering diphthongs developed historically before /r/, which was then lost following vowels in the ancestor of Standard Southern British English (SSBE); they consequently appear phonetically where there is an <r> orthographically. General American English (GAE) lacks centering diphthongs and continues to pronounce the consonantal /r/. The English diphthongs can be presented as follows:

	SSBE	GAE
price	aɪ	aɪ
choice	ɔɪ	ɔɪ
face	eɪ	eɪ
mouth	aʊ	aʊ
goat	əʊ	oʊ
near	ɪə	(ɪr)
square	ɛə	(ɛr)
cure	ʊə	(ʊr)

Adapted from McMahon (2002)

As it is presented above, probably the most important difference between the consonants of GAE and Received Pronunciation (RP) accents concerns the distribution of /r/. RP/BBC English is a non-rhotic accent, and <r> is pronounced when it occurs before vowel. However, in GA, a rhotic accent, /r/ is pronounced everywhere when <r. is in the spelling. For example, *force*, *sharp*, *care* are pronounced in BBC/RP as /fɔ:s/, /ʃa:p/, & /keə/, but in GA as /fɔ:rs/, /ʃa:rp/, & /ker/. Besides, these and other dialects may also be distinguished by the behavior of stressed vowels before <r>.

#### 4.2.1.4. Phoneme Distribution in English

##### a. Consonant Clusters

English does not use all the possible pronounceable combinations of phonemes to make syllables and words. That is to say, there are certain rules of phoneme combination for English which can be deduced from the syllables and words actually occurring. All the consonant phonemes of English may occur singly in syllable-initial position except two: /z/ and /ŋ/ (O'Connor 1976).

Like English, every language has restrictions on the permissible contents of the different consonant slots that are found in the clusters: these restrictions are known as phonotactic constraints. English allows up to three consonant clusters on the onset of a syllable of a word (McMahon 2002:106).

##### Initial Periphery/ English Initial Clusters

The maximum number of consonants in initial clusters in English is three (CCC). In such a case the first must be /s/; the second must be one of the three voiceless stops /p, t, k/, and the third must come from the set /l, r, w, y/.

1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	Examples
s	p	l,r,y	split, spring, spew
	t	r (y)	street (stew: British)
	k	l,r,y,w	sclerosis, screech, skew, square

When there are two-consonant clusters at the onset of a syllable, the first must come from the set /p, t, k, b, d, g, m, f, v, θ, s, h/ according to the following patterns: /sm/, /sn/, /st/, /sk/, /sp/, /sw/,

/sl/, /dw/, /dr/, /θw/, /θr/, /pl/, /pr/, /py/, /tr/, /tw/, /bl/, /br/, /by/, /fl/, /fr/, /fy/, /kl/, /kr/, /ky/, /kw/, /vy/, /hy/, /my/, /gr/, /gl/, /gw/.

### **Final periphery/English Final Clusters**

English has three types of final clusters, as follows:

#### **i.VCC**

This type includes: pt, pθ, ps, tθ, ts, kt, ks, bd, bz, dz, dθ, gd, gz, ʃt, mp, md, mf, mθ, mz, nt, nd, nʃ, ndʒ, nθ, ns, nz, ŋk, ŋd, ŋz, ŋθ, lp, lt, lk, lb, ld, lf, lʃ, ldʒ, lm, ln, nt, lv, lθ, ls, lz, lʃ, ft, fθ, fs, vd, vz, θt, θs, ðd, ðz, sp, st, sk, zd, ʃt, dʒd. In American English there are also clusters beginning with r: rθ, rb, rd, rf, rg, rk, rl, rm, rn, rp, rs, rt, rv, rz.

Example: /pt/ 'swept', /ks/ 'box', /gz/ 'rugs', /mf/ 'nymph' etc.

#### **ii.VCCC**

It is quite frequent in English to have three-consonant clusters in word/syllable-final position. This type includes: pts, pst, pθs, tst, tθs, dst, kst, ksθ, mpt, mps, mfs, ntθ, nts, ndz, nʃt, ndʒd, nθs, nst, nzd, ŋkt, ŋkθ, ŋkt, ŋks, ŋst, lpt, lps, lts, ldz, lkt, lks, lbz, lʃt, ldʒd, lmd, lmz, lnz, lfs, lfθ, lvd, lvz, lθs, lst, fts, fθs, spt, sps, sts, skt, sks. In American English we can also have rCC: rbz, rdz, rks, rns, rps, rts, rvz, to mention a few.

Example : /pst/ 'lapsed', /pθs/ 'depths', /dst/ 'midst', /mpt/, 'bumped', /ŋkt/ 'linked' etc.

#### **iii.VCCCC**

In English, the maximal size of consonant clusters in word/syllable-final position is four. This is a rare pattern in English. It is found only when the inflectional affixes /s/ and /t/ are added to the VCCC form. Good examples are: /ntθs/, /mpts/, /ksts/, /mpst/, /lfθs/, /ksθs/ as in 'thousandths', 'exempts', 'texts', 'glimpsed', 'twelfths' and 'sixths' respectively. Many speakers simplify these to triconsonantal clusters.

## b. Syllabic Structure

A syllable is a unit or a word that has an obligatory vowel which can be preceded and/or followed by a consonant or consonants. It is often assumed that the beginning of a syllable is similar to the beginning of a word, and the ending of a syllable is similar to the ending of a word. If so, a syllable in English can contain up to three consonants at the beginning, as in *strike*, and up to four consonants at the end, as in *texts* (Duanmu et al. 2005).

There has been disagreement on the maximal size of English syllables. Different phonologists have proposed different maximal syllable sizes. For example, Selkirk (1982) proposes that the maximal English syllable is CCVVCC as in the word 'flounce' (VV can be a long vowel or a diphthong). Blevins (1995) proposes that the maximal English syllable is CCVVC, as in 'dream'. (Such proposals will have to deal with words like *strengths* in some other way.)

Here are some examples of different English syllable types:

1. V as in /aɪ/ 'I'
2. VC as in /a:n/ 'on', /æt/ 'at', /ʌv/ 'of'
3. CV as in /noʊ/ 'no', /soʊ/ 'so', /tə/ or /tu/ 'to'
4. VCC as in /oʊld/ 'old', /ænt/ 'ant'
5. CVC as in /kæt/ 'cat', /mæn/ 'man', /bɪg/ 'big', /hæt/ 'hat'
6. CCVC as in /skɪn/ 'skin', /grɪ:n/ 'green'
7. CVCC as in /soʊld/ 'sold', /gəʊld/ 'gold', /bɑ:ks/ 'box'
8. CVCCC as in /tekst/ 'text', /nekst/ 'next'
9. CCCVC as in /splæʃ/ 'splash', /sprɪt/ 'sprite'
10. CVCCCC as in /teksts/ 'texts'

This will later be compared with the much more restricted Amharic syllable structure.

## c. Gemination of Consonants

Unlike Amharic in which gemination of consonants play a great role in differentiating lexical and grammatical meanings, English does not have the feature of gemination for expressing lexical or grammatical meanings. Therefore, gemination is not phonemic in English. It occurs only in compounds across a morpheme boundary (e.g. *cattail*).

#### **d. Vowel Length**

In English there are long and short vowels. As the length of these vowels can change the meanings of words, vowel length is phonemic in English. This is a major difference from Amharic, and is a constant source of difficulty and confusion for Ethiopian speakers of English.

#### **4.2.2. English Suprasegmental Features**

##### **4.2.2.1. Stress**

The term *stress* refers to the prominence of a particular syllable in a word, usually the result of a difference in loudness, pitch and/or duration. In line with this, Jones (1957) describes stress as the “degree of force with which a sound or syllable is uttered.” Similarly, English Language Services (1968:5) expresses stress as “the degree of loudness or force with which syllables are spoken in English.” The loudest or strongest stress in the word is called primary stress, while a less strong stress is called weak stress or secondary stress. Although all non-clitic words have one primary stress, when two words come together in a sentence only one word retains its primary stress.

In all English bisyllabic words spoken in isolation, one syllable is perceived as having more emphasis than the other. Thus in the word *table* the stress falls on the first syllable, whereas in *machine* the stress falls on the second. In words with many syllables, the word has a primary stress but may also have one (or several) secondary stress(es). For example, in the word *information* the main stress falls on the “at” syllable, but “in” has a secondary stress.

Failure to hear and produce stress patterns accurately can cause confusion between such minimal pairs as *dessert/desert*, *foreign/ for rain*, *his story/history* (Gilbert 2008). This entails that the appropriate stress pattern is as important for intelligibility as the correct pronunciation of isolated segments, and in fact, stress can sometimes determine the pronunciation of segments in English. Roach (1991: 91) states the effect of wrong stress placement in communication as “incorrect stress placement is a major cause of intelligibility problems for foreign learners, and is therefore a subject that needs to be treated very seriously.”

Most linguists make a clear distinction between stress as a phenomenon that appears in utterances and a purely lexical kind of stress. This is the difference between sentence stress and word stress. We will examine the characteristics of stress on both levels in the following.

### a) Word Stress

“Every word said in isolation has a stress. Word stress has a fixed distribution; it is a lexical feature of the word and consequently word stress is related to the lexicon” (Sole 1991:150). It is quite clear that knowledge of English pronunciation involves an ability to hear and produce the word stress pattern of English. Since stress can change the meaning of words when we shift the stress from one syllable to another, we need to be very careful in placing the appropriate stress on the individual word. A classic example is the noun *'present* vs. the verb *pre'sent*.

In English stress can be primary stress, the strongest type of stress; secondary stress, weaker than the primary stress, but stronger than an unstressed syllable; and unstressed. For example, the underlined syllables of the English words *develop /dɪ'veləp/* and *language /'læŋgwɪdʒ/* have greater prominence than the other syllables. Stressed syllables are marked with a short vertical stroke ['] before the syllable, and secondary stress is marked with a comma-like mark before the syllable ([,]). The pronunciation of a word with inappropriate accentual pattern can make the word unintelligible. Brown expresses the importance of recognizing English word stress patterns this way:

It is essential in English to learn to pay attention to the stressed syllable of a word, since this is the best and most stable feature of the word's profile, and to those words in the stream of speech which are [emphasized], since these mark the richest information-bearing units. Listeners who fail to distinguish these are likely to flounder. They are likely to lose even more information if they do not know how to identify information peaks and how to use the information encoded in this distribution. (1990:151)

Indeed, one of the most important ways in which English native speakers tend to store vocabulary items in their mental lexicon is based on their stress patterns (Sole 1991, Brown 1990).

### Some rules of lexical stress assignment in English

Every content word in English contains a single syllable bearing primary stress and, optionally, other syllables bearing secondary stress. The following lexical stress assignment rules are taken from McMahon (2002), Pater (2000), Berg (1999), Sole (1991), and Guion et al. (2003).

1. Most two-syllable nouns and adjectives have stress on the first syllable.

E.g. 'butter, 'pretty, 'danger, 'brother, 'sister etc.

2. Most two-syllable verbs have stress on the last (ultimate) syllable.

E.g. be'gin, pro'duce

3. Prefixes are not stressed.

E.g. un'fair, dis'order, il'legal

4. Syllables which contain the central vowel shewa /ə/ won't be stressed.

E.g. 'danger, 'color, 'pleasure

5. In words of more than 3 syllables the stress is often on the third syllable from the end.

E.g. de'mocracy, psy'chology

6. With compound words, if the compound is a noun, the stress goes on the first part.

E.g. 'chalkboard, 'blackboard

If the compound is a verb or an adjective, the stress tends to go on the second part.

E.g. old-'fashioned, over'look

7. If a word has two syllables and can be used as both a noun and a verb, the noun takes its primary stress on the first syllable, and the verb on the second syllable. For example:

Noun	Verb	Noun	Verb
'present	pre'sent	'subject	sub'ject
'rebel	re'bel	'desert	de'sert
'object	ob'ject	'contract	con'tract
'increase	in'crease		

8. Words ending in [-ic] or [-ics] have their main stress on the first syllable before the last (penultimate) syllable.

E.g. spe'cific, diplo'matic, idio'matic, demo'cratic, au'thentic, fan'tastic, pho'netics, re'public, scien'tific, pessi'mistic, sta'tistics

The most common **exceptions** are 'Arabic, a'rithmetic, 'catholic, 'politic(s).

9. Words ending in [-ical] have their main stress on the second syllable before the last.

E.g. e'lectrical, me'chanical, eco'nomical, paren'thetical, psycho'logical

10. When a word in [-ic] generates a word in [-icist], [-icize] or [-icism], then the main stress remains on the same syllable. This means that these words behave accentually like words in [-ical].

E.g. ro'mantic > ro'manticism

'critic > 'criticism

'classic > 'classicist

fa'natic > fa'naticize

i'talic > i'talicize

But: 'politic > po'liticize

'catholic > ca'tholicism

The above examples show some variation in pronunciation and, for the last two, a change in stress placement. The following remarks should be noted:

a) The letter <c> in the generated words is pronounced as [s] instead of [k] when the <c> is followed by <i>.

b) Any irregular words in [-ic] are **regularized** when they take the derived endings [-ical], [-icist], [-icize] and [-icism].

11. Words ending in [-ion] are stressed on the syllable before [-ion].

E.g. sus'picion, 'legion, 'tension, vari'ation, exploi'tation, exclam'ation, consti'tution, compen'sation, di'mension, trans'lation, satis'faction, suppo'sition, pre'caution

12. Final [-ional] words are stressed in the same way as [-ion] words. The same applies to final [-ionist], [-ionism] and [-ionize] derived words.

E.g. sen'sation > sen'sational

tra'dition > tra'ditional

'fraction > 'fractional

'nation > 'national

abo'lition > abo'litionist

edu'cation > edu'cationist

im'pression > im'pressionism

per'fection > per'fectionism

revo'lution > revo'lutionize

'union > 'unionize

13. Rule 11 for [-ion] also applies to words ending in the following:

*-io* : ora'torio, port'folio, 'ratio, 'patio, 'radio.

*-ior* : 'senior, su'perior, 'junior, ul'terior, in'terior.

*-ious* : sus'picious, har'monious, pre'cocious, no'torious, a'trocious, te'nacious.

*-uous* : con'temptuous, con'tiguous, con'tinuous, 'strenuous, 'virtuous.

*-eous* : spon'taneous, homo'geneous, advan'tageous, cou'rageous, er'roneous, dis'courteous.

14. Stress Shift in Derivation (not taken from the above sources):

'photograph, pho'tographer, photo'graphic

#### b) Sentence Stress

A correctly produced sentence in English results from the successful imposition of stresses at two levels: the correct syllable in a multi-syllabic word, i.e. lexical stress, and the correct placement within the sentence, i.e. sentential stress.

Determination of sentential stress is still an open problem because so many factors influence the placement of stress, including type of sentence, emotional status, context, information structure and intentions. On the other hand, the correct assignment of lexical stress is well established and is the first step in prosody realization. Since the stress can be assigned to any syllable in a multisyllabic word in American English, there are a number of stress patterns that can appear in native-speaker utterances.

As we have mentioned earlier, every word said in isolation has a stress, but when words are put together in a sentence only some of the words or just a single word may be stressed. "Sentence stress emphasizes the portion of the utterance that is most important for the speaker or that the speaker wants the listeners to concentrate on" (Sole 1991:151). In sentence stress, the words that are likely to have a greater force or prominence are lexical or content words such as nouns, verbs, adjectives and adverbs, while grammatical functional words like *the, an, a, I, she, of, at, on, can, have, and, but* tend strongly to be unstressed. The function of stress in a sentence according to Sole (1991) is to highlight the information-bearing words in the utterance. Consider

the following sentence: I DIDN'T SAY HE STOLE THE MONEY. When we change the stress from one word to another, totally different contextual meanings emerge:

1. I didn't say he stole the money. (Someone **else** said it.)
2. I **didn't** say he stole the money. (**That's** not true at **all**)
3. I didn't **say** he stole the money. (I only **suggest** the **possibility**)
4. I didn't say **he** stole the money. (I think someone **else** took it)
5. I didn't say he **stole** the money. (Maybe he just **borrowed** it)
6. I didn't say he stole the **money**. (He may have taken some **other thing** like **jewelry**)

#### 4.2.2.2. Intonation

Mastery of stress and intonation of any language needs active training because, when learning a foreign language, we tend to transfer the entire native language system in the process. We tend to transfer to that language our phonemes and their variants, our stress and rhythm patterns, our transitions, our intonation patterns and their interactions with other phonemes (Soltani 2007).

Not surprisingly, the intonation found in non-native English can pose serious intelligibility problems to native speakers of the language (Atoye 2005:26).

By intonation we mean the rise and fall of voice pitch over entire phrases and sentences. (Thus, Jones (1964) defines intonation as the variations which take place in the pitch of the voice in connected speech.) If pitch varies over an entire phrase or sentence, we call the different pitch curves by the term "intonation contours".

Intonation conveys the speaker's stance (attitude and feelings). In other words, intonation has an important speech-act function in discourse, or expresses a connotative function like anger, sarcasm, or various emotions and attitudes. Intonation can also convey purely syntactic information, as it marks where a sentence ends.

Intonation can be rising or falling or combinations of the two. In relation to this, Jones (1964:275) states, "In ordinary speech the pitch of the voice is continually changing. When the pitch of the voice rises, we have a rising intonation; when it falls, we have a falling intonation; when it remains on one note for an appreciable time, we have level intonation."

Different scholars make a classification of intonational patterns based on major sentence types or speech acts: Declarative, Interrogative (Wh and Yes/No questions), Imperatives, Exclamations and Interjections. (See O'Connor & Arnold 1973 for detailed classification.)

Although the notion of intonation is so broad, this study is restricted only to rising and falling intonations. We can use one or sometimes both of these intonations depending on the mood of the speaker.

Let us see the conditions in which we can use rising and falling intonation patterns in English. The following presentation is summarized from Bronstein (1960), Crystal (1969), Bolinger (1986) and O'Connor & Arnold (1973).

1. **Falling intonation:** It is the pattern we commonly use to
  - a. Make a statement of fact  
Example: The library closes at nine.  
                  He is studying linguistics.
  - b. Ask special questions (wh-questions) which require specific information in the answer. These special questions begin with an interrogative word (Wh-word) such as How, When, Where, and Why and of course cannot be answered by "Yes" or "No".  
Example: Who is your friend?  
                  How did you come?
  - c. Show certainty  
Example: Definitely, Exactly, etc.
  - d. The final alternative in an alternative question  
Example: Do you prefer tea or coffee?  
                  Which one is better, the former or the latter?
  - e. Issue a command  
Example: Come here.  
                  Don't drive so fast.
  - f. Show polite agreement  
Example: Yes, you are right.

- g. When you are **sure** and ask a tag question  
 Example: She does her assignment clearly, doesn't she.

2. **Rising intonation:** It is normally used whenever we:

- a. Ask a question that takes a "Yes/No" answer. We do this:  
 i) When the sentence has the formal grammar of a question, as in "Will you call me tomorrow?" Or  
 ii) If it reads as a statement, but is spoken with a questioning tone, as in "You'll call me tomorrow?"
- b. Mention a series of items (unfinished list)  
 Example: He bought books, pens, pencils, eraser, paper ...
- c. When you are **unsure** and ask a tag question  
 Example: She does her assignment clearly, doesn't she?

4.3. Important Phonemic and Phonetic Differences between Amharic and English

*pls, don't underline*

4.3.1. Segmental Features

4.3.1.1. Consonants of English and Amharic

There are some consonant sounds which exist in English but are absent in Amharic. These gaps in Amharic often constitute a learning problem. (Consonant sounds which exist in Amharic but not in English (like ejectives) of course cause no trouble for learners of English.) The following table summarizes and compares important consonant differences between English and Amharic.

Manner/point of Articulation	Bilabial		Labio-dental		Inter-Dental		Alveolar		Palatal		Velar		Glottal	
	Eng	Amh	Eng	Amh	Eng	Amh	Eng	Amh	Eng	Amh	Eng	Amh	Eng	Amh
Plosive VI Vd Eje.	p b ( )	(p) b (p')					t d ( )	t d t'			k g ( )	k g k'	( )	?
Fricative VI Vd Eje.			f v	f (v)	θ ð	( ) ( )	s z ( )	s z s'	ʃ ʒ	ʃ ʒ				h h
Affricate VI Vd Eje.									tʃ dʒ ( )	tʃ dʒ tʃ'				
Nasal Vd	m	m					n	n	( )	ɲ	ŋ	( )		

<b>Lateral</b>	<b>Vd</b>							l	l						
<b>r-sound</b>								r	r						
<b>Frictionless continuants</b>	w	w								y	y				

Chart 6: Comparison between Amharic and English Consonant Phonemes

Note: ( ) shows significant absent categories (phonemes)

**4.3.1.2. The vowels of English and Amharic**

Amharic has 7 simple vowels. On the other hand, American English has eleven pure vowels (or twelve, if /o/ is considered as a monophthong vowel). The systems are very different, both systemically/phonemically and phonetically. Almost none of the vowels are “the same”.

		Front unrounded		Central unrounded		Back rounded	
		English	Amharic	English	Amharic	English	Amharic
<b>High</b>	Tense	i:				u:	
	Lax	ɪ	i		ɨ	ʊ	u
<b>Mid</b>	Tense	e				(o)	
	Lax	ɛ	e	ə, ʌ	ə	ɔ	o
<b>Low</b>	Lax	æ		a	a		

Chart 7: Comparison between Amharic and English Simple Vowel Phonemes

**4.3.1.3. Diphthongs**

British English has eight diphthongs (eɪ, aɪ, ɔɪ, əʊ, aʊ, ɪə, eə, and ʊə); American English has only four diphthongs (eɪ, aɪ, ɔɪ, and aʊ) or five if /o/ is considered as a diphthong [oʊ]. In Amharic these categories are at best marginal; there are some examples like *wayra* ‘olive’, *Jan Hoy* ‘term of address’ or *k’oy* ‘wait’, *bəwnət/bownət* ‘truly’; but not many such words exist, and it is not clear if they count phonemically as diphthongs. These English diphthongs are therefore likely to be troublesome for Amharic learners of English.

#### 4.3.1.4. Consonant Clusters

In Amharic the maximum number of consonants in a cluster is always two. Initial consonant clusters in Amharic are restricted to the type Stop + Liquid. If more than three-consonant clusters would appear in medial position (across a morpheme boundary, or in borrowed words), the cluster will be broken up by the epenthesis of the high central vowel /i/. However, in English larger consonant clusters are possible and normal in every position. In English it is possible to have two- or three-consonant clusters in initial position, and two- to four-consonant clusters in final position. It is, therefore, difficult for Amharic learners of English to master all initial and final complex consonant clusters of English. For instance, if they are to pronounce words like *sport*, *spring*, *split*, *place*, *drive*, *blow*, *flow* etc., they may often insert [i] to break up the impermissible initial consonant clusters. This can cause English words like *drive* and *derive*, *spirit* and *sprit*, *blow* and *below*, *flow* and *follow* to be pronounced identically.

#### 4.3.1.5. Syllable Structure

The following table presents the syllable structure of English in comparison with the syllable structure of Amharic.

Syllable structure	English	Example	Amharic	Example
V	+	about	+	a-le
VC	+	at/on	+	af
VCC	+	ask/ink	+	and/asm
CV	+	do/to	+	t'e-za
CCV	+	student	(+)	krimt/kirimt
CCCV	+	splash	-	-
CVC	+	big	+	bet/k'es
CVCC	+	self/send	+	k'ænd/sərg
CVCCC	+	strengths/fists	-	-
CVCCCC	+	texts/ tempts	-	-

English syllables with initial CC, CCC, and with final CCC, CCCC may be difficult for Amharic learners of English.

#### **4.3.1.6. Gemination of Consonants**

Gemination is one of the most important distinctive features of Amharic. It carries a very important semantic and syntactic function. However, English has no gemination of consonants at all. This difference, however, should not cause problems for an Amharic speaker who is speaking English.

#### **4.3.1.7. Vowel Length**

In English, unlike Amharic, vowel length is phonemic and contrastive. The contrast changes lexical meaning and sometimes also grammatical category. Examples:

Purely lexical: ship/sheep, fill/fell, etc.

Lexical & grammatical: sin/seen, rich/reach etc.

Phonemic differences involving vowel length are often very difficult for Ethiopians speaking English (native Amharic speakers in this case).

### **4.3.2. Suprasegmental Features**

#### **4.3.2.1. Stress in Amharic and English**

As we have already mentioned, stress in Amharic is almost non-existent and it is not phonemic, unlike English where stress is contrastive. This also can cause difficulty for Ethiopians (in this case, Amharic speakers) speaking English.

#### **4.3.2.2. Intonation in Amharic and English**

Both English and Amharic are intonational languages. In both Amharic and English languages, intonation can carry significant linguistic meaning, including the speaker's attitude, emotional feelings, or focus and new information. However, intonation works differently in the two languages: often English and Amharic will use different intonational contours to express a given discourse meaning. This, too, can cause problems. Unlike Amharic, English would use wider pitch range in creating intonation patterns.

## **5. DATA ANALYSIS AND RESULTS OF THE STUDY**

### **5.1. Analysis and Results of Discrimination Test**

Sixty-one native speakers of Amharic were given two tests: a discrimination test and a production test. I first present the results of the discrimination test. In this test, the subjects were made to discriminate between minimal pairs for the segmental features, for stress (on word and sentence level), and for intonation for the supra-segmental features. There were 137 items in all.

The test was divided into several parts: consonant sounds, simple vowel sounds, diphthongs, words with closed and open syllables, consonant clusters, vowel length, word and sentence stress and intonation. Each word and sentence was spoken slowly by a native speaker of American English, and was said twice. The subjects had an answer sheet giving two (written) alternatives for the spoken form. They were to indicate the words they heard in each pair by underlining. Note also that each word-pair was recorded twice, in reverse orders (e.g. ab vs. ba); half the subjects heard one version, half heard the other. For the intonation part they were asked to choose 'R' for rising and 'F' for falling intonation contour.

The items which the subjects failed to discriminate correctly in each pair of the test were listed and the number of subjects who had difficulty in discriminating between each pair was also counted and noted. If a pair was confused by only one or two subjects, it was not considered significant and was ignored. (The abbreviation "n.d." in some of the cells indicates "no data", since no relevant minimal pairs appeared in the data set; # shows the number of subjects who didn't discriminate the pairs of words correctly out of 61 subjects.)

#### **5.1.1. Consonant Sounds**

Overall, for most pairs of related consonant sounds, almost all subjects discriminated the two sounds correctly. However, there were some pairs which were found to be particularly difficult for some subjects to discriminate. These pairs are analyzed carefully accordingly. Before the discussion of each set of difficult consonant pairs, I will present the relevant raw data in a table.

**Table 5.1.1: Results of the Perception of Stops**

Phoneme pairs	Initial		Final		Problems and/or comments
	#	%	#	%	
/p/	7	11.5	15	24.6	/p/ is perceived wrongly as /b/
/b/	4	6.6	6	9.8	/b/ is perceived wrongly as /p/
/t/	–	–	13	21.3	/t/ is perceived wrongly as /d/
/d/	12	19.7	–	–	/d/ is perceived wrongly as /t/
/k/	–	–	–	–	No significant problem
/g/	–	–	26	42.6	/g/ is perceived wrongly as /k/

*/p/ and /b/*

Irrespective of the position (word-initial or word-final) of these two sounds, some subjects had difficulty in discriminating /p/ and /b/. 15 out of 61 subjects (24.6%) perceived /p/ wrongly as /b/ word finally as in *rib* and *rip*. By contrast, words with /b/ were almost always heard correctly in both positions as in *rib* and *bit*.

*/t/ and /d/*

As can be inferred from the above table, when /t/ and /d/ were found word-initially, 12 subjects (19.7%) perceived /d/ wrongly as /t/ as in *tip* and *dip*. However, when these two sounds were found word-finally, essentially the same number of subjects, 13 (21.3%), had difficulty in discriminating /t/ and instead perceived /t/ as /d/ as in *mat* and *mad*. Interestingly, no subjects had any trouble with word-initial /t/ or word-final /d/.

*/k/ and /g/*

In this test, most subjects could discriminate between /k/ and /g/ when the two sounds occurred word-initially. However, serious problems arose word-finally. To this end, as can be observed from the above table, almost half of the total subjects, 26 (42.6%), couldn't discriminate /g/ from /k/ as in *lock* and *log*.

**Table 5.1.2: Results of the Perception of Fricatives**

Phoneme pairs	Initial		Final		Problems and/or comments
	#	%	#	%	
/f/	–	–	–	–	No significant problem
/v/	–	–	43	70.5	/v/ is perceived wrongly as /f/
/z/	n.d.	n.d.	–	–	No significant problem
/ð/	n.d.	n.d.	46	75.4	/ð/ is perceived wrongly as /z/
/s/	–	–	n.d.	n.d.	No significant problem
/θ/	43	70.5	n.d.	n.d.	/θ/ is perceived wrongly as /s/
/s/	–	–	n.d.	n.d.	No significant problem
/z/	10	16.4	n.d.	n.d.	/z/ is perceived wrongly as /s/

*/f/ and /v/*

When the two sounds occurred word-initially, almost all students could discriminate between /f/ and /v/. However, when the two sounds occurred word-finally, they became problematic for the subjects. To this effect, 43 out of 61 (70.5%) subjects failed to discriminate between the two sounds word-finally and perceived wrongly /v/ as /f/ as in *five* as *fife*, *save* as *safe*.

*/z/ and /ð/*

These two sounds were found to be one of the most challenging consonant pairs to discriminate. As vividly observed in the data above, out of the total 61 subjects, 46 (75.4%) were unable to discriminate between /z/ and /ð/ when they appeared word-finally; the subjects wrongly perceived /ð/ as /z/ as in *close* and *clothe*, *breeze* and *breathe*.

*/s/ and /θ/*

Another difficult area was the sounds /s/ and /θ/. 70.5% of the subjects failed to perceive /θ/ correctly initially in words like *think* and *thick*; instead they perceived *sink* and *sick* respectively.

/s/ and /z/

Although the problem was not serious with /s/ and /z/, some 10 (16.4%) subjects had trouble discriminating between initial /s/ and /z/ as in *seal* and *zeal*.

**Table 5.1.3: Results of the Perception of Nasals**

Phoneme pairs	Initial		Final		Problems and/or comments
	#	%	#	%	
/n/	n.d.	n.d.	–	–	No significant problem with final /n/
/ŋ/	n.d.	n.d.	20	32.8	/ŋ/ is perceived wrongly as /n/ word-finally

/n/ and /ŋ/

In this test, 20 (32.8%) subjects couldn't discriminate between these two sounds word-finally as in *sin* and *sing*; /ŋ/ was perceived wrongly as /n/ word-finally.

**Table 5.1.4: Results of the Perception of Affricates**

Phoneme pairs	Initial		Final		Problems and/or comments
	#	%	#	%	
/tʃ/	18	29.5	20	32.8	/tʃ/ is perceived wrongly as /dʒ/
/dʒ/	8	13.1	7	11.5	/dʒ/ is perceived wrongly as /tʃ/

/tʃ/ and /dʒ/

Many students were found unable to discriminate between /tʃ/ and /dʒ/. It is evident that 2-3 times as many subjects wrongly perceived /tʃ/ as /dʒ/ (in both positions) than wrongly perceived /dʒ/ as /tʃ/ (as in *choke* and *joke*, *rich* and *ridge*).

**Table 5.1.5: Results of the Perception of Stops vs. Fricatives**

Phoneme pairs	Initial		Final		Problems and/or comments
	#	%	#	%	
/d/	–	–	n.d.	n.d.	No problem
/ð/	21	34.4	n.d.	n.d.	/ð/ is perceived wrongly as /d/

/t/	–	–	n.d.	n.d.	No problem
/θ/	28	45.9	n.d.	n.d.	/θ/ is perceived wrongly as /t/

/d/ and /ð/

Almost all students had no problem in correctly perceiving /d/. However, 21 out of 61 (34.4%) subjects were found unable to discriminate /ð/ from /d/ as in *den* and *then*.

/t/ and /θ/

Of the total subjects used in this study, almost half, 28 (45.9%), had difficulty in discriminating between initial /t/ and /θ/ as in *tin* and *thin*. When the speaker spoke *thin*, the subjects perceived it as if they heard *tin*.

**Table 5.1.6: Results of the Perception of Fricatives and Affricates**

Phoneme pairs	Initial		Final		Medial		Problems and/or comments
	#	%	#	%	#	%	
/z/	n.d.	n.d.	n.d.	n.d.	10	16.4	/z/ is perceived wrongly as /dʒ/ medially
/dʒ/	n.d.	n.d.	n.d.	n.d.	–	–	No problem in any position
/ʃ/	n.d.	n.d.	9	14.5	–	–	/ʃ/ is perceived wrongly as /tʃ/ word-finally
/tʃ/	n.d.	n.d.	9	14.5	–	–	Problem happened the other way round

/z/ and dʒ/

These two sounds did not create a serious problem for the subjects. Only 10 of the total (16.4%) subjects were unable to discriminate /z/ from dʒ/ word-medially as in *major* and *measure*.

/tʃ/ and /ʃ/

Although the problem related to these two sounds was not serious, it was found that 9 (14.5%) students each failed to discriminate /tʃ/ from /ʃ/ and vice versa, as in *watch* and *wash*. (No minimal pairs were given in initial and medial position — a design oversight.)

**Table 5.1.7: Results of the Perception of Velar Stops vs. Nasals**

Phoneme pairs	Initial		Final		Problems and/or comments
	#	%	#	%	
/ŋ/	—	—	11	18	/ŋ/ is perceived wrongly as /ŋk/
/ŋk/	—	—	—	—	No problem
/ŋ/	—	—	9	14.8	/ŋ/ is perceived wrongly as /g/
/g/	—	—	—	—	No significant problem
/ŋ/	—	—	12	19.7	/ŋ/ is perceived wrongly as /k/
/k/	—	—	—	—	No significant problem

/ŋ/ and /ŋk/; /ŋ/ and /g/; /ŋ/ and /k/

It is clearly seen from the above data that most students had no problem with /ŋ/ vs. /ŋk/, or with /ŋ/ vs. /g/, or with /ŋ/ vs. /k/. However, some 11 out of 61 subjects (18%) couldn't discriminate /ŋ/ from /ŋk/ as in *sing* and *sink*; 9 (14.8) couldn't discriminate /ŋ/ from /g/ as in *ring* and *rig*. Similarly, 12 (19.7%) were unable to discriminate between /ŋ/ and /k/ as in *bang* and *back*. (Necessarily, all the pairs involved /ŋ/ in **final** position.)

**Table 5.1.8: Results of the Perception of Liquids**

Phoneme pairs	Initial		Final		Problems and/or comments
	#	%	#	%	
/l/	10	16.4	n.d.	n.d.	/l/ is perceived wrongly as /r/
/r/	5	8.2	n.d.	n.d.	/r/ is perceived wrongly as /l/

/l/ and /r/

It was observed that most subjects had no difficulty in discriminating /l/ and /r/. Only 16.4% perceived initial /l/ wrongly as /r/; 8.2% wrongly perceived /r/ as /l/. (There were no word-final <l/r> pairs, which was a design error.)

### Summary

In general, those sound pairs which are normal to Amharic didn't create serious problems for Amharic learners of English; rather, problem arose in sounds pairs where one sound is foreign to Amharic (e.g. /θ/, /ð/, /ŋ/ & /v/ and to some extent /p/). There were two exceptions which I do

not understand: misperceiving final /g/ as /k/ (42.6%), and misperceiving /tʃ/ as /dʒ/ both initially and finally (around 30%). All four sounds, /g, k, tʃ, dʒ/ are normal sounds of Amharic.

### 5.1.2. Simple Vowel Sounds

The following simple vowel sounds were found to be troublesome for some of the subjects to discriminate. The following table summarizes the data.

**Table 5.1.9: Results of the Perception of Simple Vowel Sounds**

Phoneme pair (with an example)	Subjects/Respondents		Problems and/or comments
	#	%	
/e/ (bell)	18	29.5	/e/ is perceived wrongly as /ɪ/
/ɪ/ (bill)	5	8.2	/ɪ/ is perceived wrongly as /e/
/e/ (lend)	5	8.5	/e/ is perceived wrongly as /æ/
/æ/ (land)	28	45.9	/æ/ is perceived wrongly as /e/
/æ/ (cat)	19	31.1	/æ/ is perceived wrongly as /ʌ/
/ʌ/ (cut)	8	13.1	/ʌ/ is perceived wrongly as /æ/
/ʌ/ (come)	—	—	No significant problem
/a:/ (calm)	31	50.8	/a:/ is perceived wrongly as /ʌ/
/ʌ/ (shut)	20	32.8	/ʌ/ is perceived wrongly as /ɔ/
/ɔ/ (shot)	5	8.2	/ɔ/ is perceived wrongly as /ʌ/
/ɪ/ (dip)	5	8.2	/ɪ/ is perceived wrongly as /i:/
/i:/ (deep)	30	49	/i:/ is perceived wrongly as /ɪ/
/ʊ/ (full)	4	6.5	/ʊ/ is perceived wrongly as /u:/
/u:/ (fool)	16	26.2	/u:/ is perceived wrongly as /ʊ/

As is vividly seen from the above data, those English categories/phonemes that are absent in Amharic — the vowel quality /æ/ and the length distinction implicit in /i:/, u:/, a:/ — created discrimination difficulties for Amharic learners of English. I am assuming here that English /ʌ/ (as in *but*) is very close to the Amharic 1<sup>st</sup>-order vowel /ə/, and that English /ɔ/ is rather similar (though not identical) to the Amharic 7<sup>th</sup>-order /o/. To this effect, 28 out of 61 (45.9%) subjects had a problem in discriminating /æ/ from /e/; they wrongly perceived /æ/ as /e/ as in *land* and

*lend*. Similarly, the long /a:/ in *calm* is wrongly perceived as the /ʌ/ in *come* by 31 (50.8%) of the total subjects. The long vowels /i:/ and /u:/ were wrongly identified as the short vowels /ɪ/ and /ʊ/ by 49% and 26.2% of the subjects respectively: for example, *deep* /di:p/ as *dip* /dɪp/; *fool* /fu:l/ as *full* /fʊl/. Some subjects (31.1%) had difficulty in discriminating /æ/ from /ʌ/ as in *cat* and *cut*.

However, although /e/ and /i/ are in the phonemic inventory of both Amharic and English, some 18 out of 61 subjects (29.5%) wrongly perceived /e/ as /ɪ/ as in *bell* and *bill*. Moreover, /ʌ/ was wrongly perceived as /ɔ/ as in *shut* /ʃʌt/ and *shot* /ʃɔt/ by 20 subjects (32.8%).

Five of the seven pairs involved one English vowel which was (almost) the same as an Amharic vowel, and one English vowel (/æ, i:, u:, a:/) which was alien to Amharic. In such cases, when the subjects were presented with a word having an Amharic-like vowel, they almost always picked the correct English word in their answers. But when they heard a word having a “non-Amharic” vowel, there was difficulty, ranging from 26.2% to 50.8% wrong answers. That is, subjects have trouble identifying the foreign (uniquely English) sounds.

In the other two pairs, there was difficulty with /e/~ɪ/ when the presented word had /e/ (29.5% wrong), but not when it had /ɪ/. And there was difficulty with /ʌ/~ɔ/ when the presented word had /ʌ/ (32.8% wrong), but not when it had /ɔ/. I cannot find a good explanation for these cases. At least we should note that the percentage of errors is relatively low (around 30%, not 50%) in both of these cases.

### 5.1.3. Diphthongs

English diphthongs were found to be the most difficult area for native Amharic speakers to discriminate. In this study, the following pairs of diphthongs and/or pure vowels are identified.

**Table 5.1.10: Results of the Perception of Diphthongs**

Phoneme pair (with example)	Subjects/Respondents		Problems and/or comments
	#	%	
/e/ (get)	–	–	No problem
/eɪ/ (gate)	30	49	/eɪ/ is perceived wrongly as /e/

/eɪ/ (late)	15	24.6	/eɪ/ is perceived wrongly as /aɪ/
/aɪ/ (light)	10	16.4	/aɪ/ is perceived wrongly as /eɪ/
/ɔ:/ (hall)	28	45.9	/ɔ:/ is perceived wrongly as /oʊ/
/oʊ/ (hole)	4	6.6	/oʊ/ is perceived wrongly as /ɔ:/
/aɪ/ (bile)	–	–	No significant problem
/oɪ/ (boil)	6	9.8	/oɪ/ is perceived wrongly as /aɪ/
/aʊ/ (loud)	5	8.2	/aʊ/ is perceived wrongly as /oʊ/
/oʊ/ (load)	23	37.9	/oʊ/ is perceived wrongly as /aʊ/

As with the pure vowels (sec. 5.1.2), four of the five pairs involved one English diphthong — /eɪ/ or /oʊ/ — which is foreign to Amharic, vs. one other sound — /e/, /ɔ:/, /aɪ/, /aʊ/ — which is familiar to Amharic speakers. Recall that /ɔ/ (and /ɔ:/) is considered here to be phonetically like Amharic /o/; the diphthongs /aɪ/ and /aʊ/ exist phonetically in a few familiar Amharic words, as discussed in sections 4.1.1.3 and 4.3.1.3. Three of these 4 cases are the following: /e/~eɪ/, /eɪ/~aɪ/, /aʊ/~oʊ/. Here, when the subject heard a word with the “foreign” diphthongs /eɪ/ or /oʊ/, there was considerable difficulty in picking the correct answer (49%, 24.6%, 37.9% errors). Conversely, the counterpart words with the Amharic-like sounds /e/, /aɪ/, /aʊ/ were much easier (0%, 16.4%, 8.2% errors, respectively).

One of the above 4 cases was the pair /ɔ:/~/oʊ/. Here the subjects had much more trouble with the Amharic-like sound /ɔ:/; 45.9% mistakenly thought it was /oʊ/. The English spelling offers a clear explanation. Subjects heard the English /ɔ:/ vowel as Amharic /o/, and thus chose the English word that was **spelled** with <o>, i.e. *low* (and not the correct *law*), *hole* (and not the correct *hall*).

Finally, the pair /aɪ/~oɪ/ involved two English diphthongs which both exist in Amharic, at least phonetically. Significantly, here the subjects had no serious trouble in either direction.

#### 5.1.4. Word-pairs with Final –C vs. Final –Ci

The following table presents the results obtained from the subjects when they heard the pairs of words read by a native American English speaker. Nine of the ten pairs involved simply the addition of *-i*; one pair (*six/sixty*) added *-ti*. In all cases, the final *-i* vowel is unstressed.

**Table 5.1.11: Results of the Perception of Word-pairs with Final –C and Final –Ci**

Pair of words	Subjects/Respondents		Problems and/or comments
	#	%	
eight	4	6.6	<i>eight</i> is perceived wrongly as <i>eighty</i>
eighty	3	4.9	<i>eighty</i> is perceived wrongly as <i>eight</i>
dirt	–	–	No problem
dirty	20	32.8	<i>dirty</i> is perceived wrongly as <i>dirt</i>
German	–	–	No problem
Germany	11	18	<i>Germany</i> is perceived wrongly as <i>German</i>
part	–	–	No problem
party	4	6.6	<i>party</i> is perceived wrongly as <i>part</i>
six	–	–	No problem
sixty	6	9.8	<i>sixty</i> is perceived wrongly as <i>six</i>
luck	–	–	No significant problem
lucky	–	–	No significant problem
honest	–	–	No problem
honesty	–	–	No significant problem
fun	–	–	No significant problem
funny	–	–	No significant problem
difficult	–	–	No problem
difficulty	–	–	No significant problem
sit	–	–	No problem
city	–	–	No significant problem

In almost every case, the words with final -C were perceived correctly; the only exception was “eight”, which occasionally was misheard as “eighty”. The problems, although minor, occurred with words ending in -Ci. For half these words (*lucky, funny, honesty, city, difficulty*) only one or two people made any mistakes. For the other five words, the percentages were higher. With *eighty, party, sixty*, 5-10% of the subjects mistakenly heard *eight, part, six*. This could be due to the fact that /i/ is devoiced because of the preceding voiceless C. But with *Germany* the error percentage was 18%, and with *dirty* 32.8%. In these last two cases, particular reasons for the high percentages exist. Many Ethiopians use the word *German* as the name of the country (as well as the language and the people); they are not used to seeing or using the word *Germany* at all. As for *dirty*, my experience is that many Ethiopians use the word *dirt* both as a noun and an adjective (compare Amharic *k’ofafa*); for them, the word *dirty* is unfamiliar, just like the word *Germany*. Such people may tend to hear *Germany* and *dirty* as if they were the more familiar words *German* and *dirt*.

Finally, for all five of these words, the existence of mistakes may have to do with the possibility, in Amharic, of adding an epenthetic schwa (unstressed) between final -C and initial C- across a word boundary. This may lead to a mistaken strategy of hearing English words in final -Ci as if the final (unstressed) -i was merely a kind of epenthetic vowel and thus “not really there”.

### 5.1.5. Consonant Clusters

**Table 5.1.12: Results of the Perception of Consonant Clusters**

Pair of words	Subjects/Respondents		Problems and/or comments
	#	%	
blow	13	21.3	<i>blow</i> is perceived wrongly as <i>below</i>
below	–	–	No significant problem
flow	6	9.8	<i>flow</i> is perceived wrongly as <i>follow</i>
follow	–	–	No significant problem
sport	4	6.6	<i>sport</i> is perceived wrongly as <i>support</i>
support	–	–	No significant problem
disprove	28	45.9	<i>disprove</i> is perceived wrongly as <i>disapprove</i>
disapprove	–	–	No significant problem

flood	17	27.9	<i>flood</i> is perceived wrongly as <i>fluid</i>
fluid	9	14.5	<i>fluid</i> is perceived wrongly as <i>flood</i>
place	13	21.3	<i>place</i> is perceived wrongly as <i>palace</i>
palace	–	–	No significant problem
chains	22	36.1	<i>chains</i> is perceived wrongly as <i>Chinese</i>
Chinese	4	6.6	<i>Chinese</i> is perceived wrongly as <i>chains</i>

Almost all the problems involved clusters CC being misperceived as CVC; only rarely did the reverse occur. By far the highest percentage of errors (45.9%) occurred with the word *disprove* which contains a CCC triple cluster, a type which is absolutely excluded in Amharic. For the other words, the error percentages are fairly low in general. The word-pair *flood/fluid* caused difficulty in both directions (27.9%, 14.5%). This is probably due to the fact that for university students, the word *fluid* (e.g. correction fluid) is the more familiar one, but pronounced as [flud], a pronunciation which is sort of halfway between canonical English [flʌd] *flood* and [flu:ɪd] *fluid*. As for the word *chains*, a high percentage (36.1%) misheard it as *Chinese*. This seems puzzling, since, like *chains*, normal Amharic words can easily end in the cluster /nz/, e.g. /wənz/ “river”. The error may simply be due the unfamiliarity of the un-Amharic /eɪ/ diphthong in *chains*.

### 5.1.6. Stress

#### A. Word Level

In this test, students were asked to underline the stressed syllable in the word they heard.

**Table 5.1.13: Results of the Perception of Stress: Word Level**

Noun vs. Verb	Subjects/Respondents		Problems and/or comments
	#	%	
con'tract	7	11.5	con'tract is perceived wrongly as 'contract
'contract	15	24.6	'contract is perceived wrongly as con'tract
de'sert	18	29.5	de'sert is perceived wrongly as 'desert
'desert	10	16.4	'desert is perceived wrongly as de'sert

ob'ject	4	6.6	<i>ob'ject</i> is perceived wrongly as <i>'object</i>
'object	20	32.8	<i>'object</i> is perceived wrongly as <i>ob'ject</i>
per'mit	23	37.7	<i>per'mit</i> is perceived wrongly as <i>'permit</i>
'permit	4	6.6	<i>'permit</i> is perceived wrongly as <i>per'mit</i>
re'bel	10	16.4	<i>re'bel</i> is perceived wrongly as <i>'rebel</i>
'rebel	15	24.6	<i>'rebel</i> is perceived wrongly as <i>re'bel</i>
re'cord	4	6.6	<i>re'cord</i> is perceived wrongly as <i>'record</i>
'record	15	24.6	<i>'record</i> is perceived wrongly as <i>re'cord</i>
pre'sent	13	21.3	<i>pre'sent</i> is perceived wrongly as <i>'present</i>
'present	14	23	<i>'present</i> is perceived wrongly as <i>pre'sent</i>
sus'pect	6	9.8	<i>sus'pect</i> is perceived wrongly as <i>'suspect</i>
'suspect	24	39.3	<i>'suspect</i> is perceived wrongly as <i>sus'pect</i>
sub'ject	3	4.9	<i>sub'ject</i> is perceived wrongly as <i>'subject</i>
'subject	26	42.6	<i>'subject</i> is perceived wrongly as <i>sub'ject</i>
in'sult	9	14.8	<i>in'sult</i> is perceived wrongly as <i>'insult</i>
'insult	19	31.1	<i>'insult</i> is perceived wrongly as <i>in'sult</i>

In general, subjects made many more errors with the “nouny” stress pattern ( $\sigma.\sigma$ ) than the “verby” pattern ( $\sigma.\sigma$ ). Since Amharic is a language which is described as not having (phonemic) stress at all, it is hard to understand this asymmetry in the responses. A possible factor is that the English noun-pattern ( $\sigma.\sigma$ ) often does not really involve a stressed followed by an unstressed syllable (' $\cup$ ), but rather a primary stress followed by a secondary stress (' $\`$ ). It could be suggested that a sequence of two consecutive stress-bearing syllables is phonetically “alien” to Amharic and to Amharic speakers, much more so than a sequence of a (phonetically) stressed and unstressed syllable (in either order). In general, we have seen that English words whose phonetic realization involves Amharic-like sounds are easier to correctly discriminate than words with segments that are alien to Amharic. The same would seem to hold for stress patterns, although more weakly.

There were 3 exceptions to the general pattern: *desert*, *permit*, and *present*. With *permit*, the noun stress-pattern ('per.mit) was much easier than the verb pattern (per.'mit); with *present*, the

two alternatives showed the same (relatively high) degree of difficulty. I cannot find a good explanation for these two. For *desert*, a plausible explanation lies in the subjects' variable familiarity with the various lexemes involved. Almost any student knows '*de.sert*' 'wilderness'. But the verb *de.'sert* is rather unusual and the *des.'sert* after a meal is not a common phenomenon in Ethiopia. This would explain why there were fewer problems with the noun '*de.sert*': as the more familiar item, the students found it easier to correctly discriminate. (No such explanation seems forthcoming for *permit* or *present*.)

As a summary statistic, 23 subjects (37.7%) showed difficulty in discriminating between most of the disyllabic words when read as a noun (and sometimes a verb), and scored below five out of the total ten noun vs. verb pairs.

## **B. Sentence Level**

The data were the following:

1. John has bought a new car.
2. I said she might consider a new haircut.
3. I don't think he should get the job.
4. John has bought a new car.
5. I don't think he should get the job.
6. I said she might consider a new haircut.
7. I don't think he should get that job.
8. I said she might consider a new haircut.
9. I didn't say he stole the money.

All students heard the same single version of each sentence, which was read by the native speaker with strong stress on some particular word. The results are presented as follows in the table below, and then the discussion.

**Table 5.1.14: Results of the Perception of Stress: Sentence Level**

Item #	Words with their percentage as perceived by the subjects						
1	<b>John</b> -55	has-0	bought-9.8	new-1.6	car-32.8		
2	I-1.6	said-14.8	<b>she</b> -6.6	might-9.8	consider-31.1	new-13.1	haircut-42.6
3	I-0	don't-24.6	think-11.5	<b>he</b> -4.9	should-8.2	get-8.2	job-42.6
4	John-6.6	has-0	bought-8.2	<b>new</b> -26.2	car-59		
5	I-1.6	don't-23	think-11.5	he-0	should-3.3	get-1.6	<b>job</b> -59
6	I-1.6	said-6.6	she-1.6	might-3.3	consider-6.6	new-13.1	<b>haircut</b> -67.1
7	I-1.6	don't-1.6	think-8.2	should-3.3	get-24.6	<b>that</b> -4.9	job-55.6
8	<b>I</b> -4.9	said-14.8	she-3.3	might-4.9	consider-21.3	new-18	haircut-32.8
9	I-0	didn't-11.5	say-4.9	he-0	stole-21.3	the-0	<b>money</b> -62.3

**Note: Bold words in each sentence show the correct stressed word; the others show wrongly perceived words**

In every sentence except no. 1, more students perceived sentence-final stress (rightly or wrongly) than in any other position. In 5, 6, and 9, the last word is the correct answer anyway, and it was selected by 59%, 67.1%, and 62.3% respectively. But the preference for sentence-final stress was also observed in sentences where it was the wrong answer (2, 3, 4, 7, and 8).

In 4 and 7, the adjective *new* and the demonstrative adjective *that* were correctly perceived only by 26.2% and 4.9% of the subjects respectively. Instead, subjects heard the stress as if it occurred on the immediately-following Head Noun of the NP (*new car*, 59%; *that job*, 55.6%). Of course, this was also the last word of the sentence.

As can be seen from the above table, pronouns were found to be by far the worst discriminated elements in each of the sentences. In sentences 2, 3, and 8, only 6.6%, 4.9% and 4.9% of the subjects correctly discriminated *she*, *he* and *I* respectively; this is also true of the demonstrative pronoun in 7 (only 4.9% correct). But the stressed pronouns also seem to have created more confusion than with other kinds of stressed words. In general, subjects tended strongly to perceive the stress as coming in final position. But when the target was a stressed personal pronoun, this tendency to end-stress was **weakest**: 42.6%, 42.6%, and 32.8% in sentences 2, 3, and 8 respectively. Instead, the verb or the negative was often perceived as the stressed element; and in sentence 8, it is hard to say that there was any single strongly preferred pattern at all.

By contrast, nouns were easiest for the subjects to discriminate. In sentences 1, 5, 6, and 9, the nouns *John*, *job*, *haircut*, and *money* were perceived correctly by 55%, 59%, 67.1%, and 62.3% of the subjects. In the only case where students correctly perceived a non-end-stressed word, that word was a noun (sentence 1), with 55% correct. In contrast, in sentence 8, a stressed **pronoun** subject in initial position was misperceived by almost everyone. Intuitively, the fact that here the stressed word *John* is both a noun subject and also in initial position probably should somehow help to explain this sentence's unique status in the data. But more testing with other sentences is needed.

Finally, other studies (Alemayehu 1987) have indicated that intonation in Amharic is realized chiefly in terms of pitch, not in terms of accent (loudness). Therefore, we might think that the Amharic-speaking subjects were listening more for pitch differences than for loudness differences in the English sentences. In principle, this might help to explain their errors. But in fact, the stressed word in the English sentences was read (unconsciously) not only with greater loudness but also with higher pitch. So we cannot explain the errors by appealing to pitch.

The results of the discrimination test presented in this part lead to the conclusion that the type of native language has a direct effect on the perception of stress in a second/foreign language (Amharic and English, in this study). Amharic native speakers consistently performed poorly in the discrimination of English stress. This problem is surely due in part to the fact that, unlike English (which is a stressed-time language), stress in Amharic is not phonemic.

### 5.1.7. Intonation

In this paper, I will focus only on the rising and falling intonation contours. The subjects were asked to identify whether each sentence, as read by a native speaker, is said in rising or falling intonation.

1. The girl is a nurse.
2. Are you ready to act this conversation out?
3. Yes, you are right.
4. What kind of flowers did she buy?
5. Did he finish his work?
6. Who is your friend?

7. Do you prefer tea or coffee?
8. Certainly.
9. After he had eaten his lunch, he went to school.
10. Come here.
11. When did he become the Mayor of the city?
12. Don't drive so fast.
13. He can draw the picture, can't he?
14. You mean you can't come?

The results are presented in the following table. Grammatically similar sentences are grouped together, yielding 8 groups. Note also that sentences 3 & 8 have been put into a separate group, distinct from statements (sentences 1 & 9), since they are expressions which are appropriate only in the restricted context of expressing agreement or confirmation of what was just said.

**Table 5.1.15: Results of the Perception of Intonation**

Type of Sentence	Item #	Correct Intonation Contour	Wrong Respondents		Total Wrong Respondents		Criterion
			#	%	#	%	
Statement	1	Falling	6	9.8	21	34.4	1, 2 wrong
	9	Falling	18	29.5			
Wh-question	4	Falling	34	55.7	47	77	2, 3 wrong
	6	Falling	36	59			
	11	Falling	25	41			
Yes/No question	2	Rising	6	9.8	23	37.7	1, 2 wrong
	5	Rising	19	31.1			
Imperative	10	Falling	28	45.9	44	72.1	1, 2 wrong
	12	Falling	40	65.6			
Agreement/ certainty	3	Falling	24	39.3	44	72.1	1, 2 wrong
	8	Falling	28	45.9			
Final alternative	7	Falling	33	54.1	33	54.1	
Tag question	13	Rising	23	37.7	23	37.7	
Echo question	14	Rising	25	41	25	41	

In the above chart, two conventions were used for figuring the “Total Wrong Respondents”. In groups that were represented by two items (e.g. “Statement”: 1, 9), the total indicates students who made an error either on one or both of the items; this explains why the total under (e.g.) “Statements” does not equal the sum of 1 and 9 taken individually (thus  $6 + 18 \neq 21$ ). In the group “Wh-questions”, which is represented by three items (4, 6, 11), the total indicates students who made errors on 2 or 3 of the items (but not just one error); again, the overall total does not equal the sum of the individual items, for the same reason.

#### **a. Statements**

In both English and Amharic, statements should be said in falling intonation. Although only a few students (9.8%) failed to discriminate the intonation contour of sentence 1, a higher number of students (29.5%) were found unable to discriminate the intonation contour of sentence 9. The difference may be because 9 is a complex sentence, pronounced with a slight rise in the first half. Overall, 21 out of 61 subjects (34.4%) wrongly discriminated the intonation contour of the statements. This is the lowest error percentage of all the groups.

#### **b. Wh-questions**

Wh-questions in English and Amharic should be said in falling intonation. Thus sentences 4, 6, and 11 should be said in falling intonation. However, most subjects found the intonation contour of Wh-questions difficult to discriminate. Of the total 61 subjects, 47 subjects (77%) made 2 or 3 errors in discriminating the falling intonation contour of sentences 4, 6 & 11, and mistakenly heard a rising intonation contour instead.

#### **c. Yes/No Questions**

Yes/No questions should be said in rising intonation in both languages. Relatively few mistakes were made here. In sentences 2 & 5, overall some 23 subjects (37.7%) failed to discriminate the correct intonation contour; instead they wrote falling. There was a notable difference between sentence 2 (9.8% errors) and 5 (31.1% errors). This may be because 5 begins with the added element *did* (Do-support), an area where Ethiopian students often have difficulty; many students would tend to say instead something like “Is he finish(ed) his work?” The added *did* in 5 may be relatively unfamiliar; hence the larger number of errors.

#### **d. Imperative**

In both languages, when we issue a command, we should say it in falling intonation. But commands were difficult for subjects to discriminate. Overall, 44 out of 61 subjects (72.1%) failed to discriminate the intonation contour of sentences 10 & 12 as they heard it from the recording of the native speaker. Again there is an interesting difference between 10 (45.9% errors) and 12 (65.6% errors), and again the reason may be the presence of *Do(n't)* in the negative imperative 12.

#### **e. Showing Certainty and Polite Agreement**

To show polite agreement and certainty, native speakers of English use falling intonation. However, it is evident from the above table that expressing certainty and agreement is found to be one of the major difficult areas Amharic learners of English face in correctly identifying the intonation contour of this type. Overall, 44 of the subjects (72.1%) were unable to perceive the correct intonation contour of sentences 3 & 8; the percentage was about the same for each sentence. However, a remarkable number of students (16) got only # 3 wrong, but # 8 right; about the same number (20) got only # 8 wrong, but # 3 right. Only 8 students got both wrong. Why so many students made mistakes with just *one* of the items (sometimes one, sometimes the other) is puzzling.

#### **f. The Final Alternative in Alternative Questions**

Another area of difficulty, as observed in this study, was the trouble many students had to discriminate the intonation contour used in the second alternative of *or*-questions. 33 subjects (54.1%) couldn't discriminate the intonation contour correctly, as in sentence 7.

#### **g. Tag questions**

It was observed that 23 subjects (37.7%) failed to discriminate the intonation contour used at the end of sentence 13. This is a relatively low percentage. The errors may be because some students, having heard the statement first (which they associate with a falling intonation), may not have given due attention to the added tag question (*can't he?*), which has a marked prosodic rise.

#### **h. Echo question**

If a sentence is read as a statement, but is spoken with a questioning tone, the correct intonation contour is rising. In item 14, 25 subjects (41%) failed to discriminate the intonation contour. Similarly to the tag question, the errors may be due to the fact that the sentence has the structure (though not the prosody) of a statement (SV...); statements should be said in falling intonation, so some students may mistakenly have discriminated the intonation contour of an echo question as if it were that of a real statement (i.e. falling).

Generally, in this study, it was observed that a majority of students had relatively less difficulty in discriminating the intonation contour used in statements (34.4% errors), yes/no questions (37.7%), and tag questions (37.7%); echo questions were only slightly more difficult (41% errors). Difficulty arose when they heard alternative questions (54.1%), wh-questions (77%), imperatives (72.1%) and phrases expressing certainty/agreement (72.1%). For the first two, I suggest that subjects may have been reacting to the graphic question mark at the end of alternative questions and wh-questions as a cue that made them treat these questions as if they were similar to Yes/No-questions. This was arguably why they tended to perceive the wrong intonation contour for alternative questions (54.1%) and wh-questions (77%). Regarding imperatives and expressions of certainty, subjects may have wrongly expected the intonation contour to be rising since commands and certainty are often expressed in Amharic with high pitch and sometimes with strong emotion.

#### **5.2. Analysis and Results of Production Test**

The second test in this study was the production test. The students were recorded while reading 109 sentences which contained most of the minimal pairs used in the discrimination test. Moreover, the disyllabic words (for word stress) and the different sentence types (for sentence stress and intonation) that had been used in the discrimination test were similarly used in the production test. The production test was given one day after the discrimination test.

One native American English speaker, three (linguistics) classmates with good English skills, and I (the researcher) listened to the recordings of each subject, and gave each subject a score of one point for each correctly said item (a total of 113; four of the 109 sentences contained two test items).

As a crude assessment of the range of phonetic transcriptions of the important words as pronounced by the subjects in the sentences, the following 3 symbols are used:

^ Somebody (but not everybody) pronounced it right

\* Nobody pronounced it right

< Everybody pronounced it correctly

The highest percentage is given in **bold**; the last answer in each list is the correct (or almost correct) answer, except in cases where no one got the right answer. When two letters/sounds in the transcription are separated by a hyphen, it indicates a pause between the two.

### Consonant Sounds

English	As pronounced by the subjects
^veal /vi:l/	[vɪl]-13.1%, [veɪl]-11.5%, [vaɪl]-6.6%, [voɪl]-3.3%, [vel]- <b>45.9%</b> , [vol]-4.9%, [vi:l]-14.8%
^five /faɪv/	[faɪf]- <b>75.4%</b> , [faɪv]-24.6%
^safe /seɪf/	[seɪf]- <b>63.9%</b> , [sa:f]-19.7%, [safi]-6.6%, [seɪf]-9.8%
*think /θɪŋk/	[tɪŋk]- <b>91.8%</b> , [sɪŋk]-8.2%
*thin /θɪn/	[tɪn]- <b>85.2%</b> , [tæn]-14.8%
*then /ðen/	[zen]- <b>85.2%</b> , [zɪn]-9.8%, [zeɪn]-4.9%
^zeal /zi:l/	[zel]- <b>31.1%</b> , [zɪl]-11.5%, [zaɪl]-24.6%, [zɪəl]-13.1%, [za:l]-4.9%, [zi:l]-14.8%
^late /leɪt/	[let]- <b>73.8%</b> , [li:t]-8.2%, [la:t]-11.5%, [leɪt]-6.6%
*mad /mæd/	[ma:d]- <b>70.5%</b> , [mɪd]-4.9%, [meɪd]-11.5%, [med]-14.8%
*mat /mæt/	[mat]- <b>73.8%</b> , [mɪt]-3.3%, [meɪt]-4.9%, [met]-18%

^mate /meɪt/	[met]-55.7%, [ma:t]-9.8%, [mæt]-6.6%, [mit]-4.9%, [meɪt]-6.6%
^made /meɪd/	[med]-85.2%, [meɪd]-14.8%
^joke /dʒoʊk/	[dʒok]-86.9%, [dʒa:k]-4.9%, [dʒoʊk]-8.2%
^choke /tʃoʊk/	[dʒoʊk]-8.2%, [dʒok]-9.8%, [ʃek]-6.6%, [tʃo:k]-18%, [kok]-11.5%, [kʊk]-4.9%, [tʃoʊk]-41%
*law /lɔ:/	[laʊ]-70.5%, [lɔw]-18%, [ləʊ]-11.5%
*raw /rɔ:/	[raʊ]-50.8%, [ra:w]-26.2%, [rɔw]-11.5%, [ɪraʊ]-11.5%
*sing /sɪŋ/	[sɪŋ-g]-83.6%, [sɪŋ]-16.4%
*these /ði:z/	[zɪs]-85.2%, [zəs]-9.8%, [sɪz]-4.9%
^close /kloʊz/	[kloz]-90.2%, [kloʊz]-9.8%
*cloth /kla:θ/, /klɔ:θ/	[kloz]-88.5%, [kloʊz]-8.2%, [klɔ:z]-3.3%
^major /meɪdʒər/	[ma:dʒər]-26.2%, [maɪdʒər]-27.9%, [medʒər]-21.3%, [ma:zər]-9.8%, [meʒər]-6.6%, [meɪdʒər]-8.2%
^measure /meʒər/	[medʒər]-50.8%, [maɪdʒər]-21.3%, [meʒər]-27.9%

### Pure vowels and diphthongs

#### English

#### As pronounced by the subjects

^bell /bel/	[bɪl]-19.7%, [bɒl]-11.5%, [bel]-68.9%
^bill /bɪl/	[bel]-13.1%, [baɪl]-9.8%, [bɒl]-6.6%, [boɪl]-3.3%, [bʊl]-4.9%, [bɪl]-62.3%
^lift /lɪft/	[left]-41%, [lift]-59%

^left /left/	[lift]-13.1%, [ <b>left</b> ]-86.9%
^letter /letər/	[leter]-3.3%, [ <b>letər</b> ]-96.7%
*latter /lætər/	[ <b>letər</b> ]-62.7%, [leter]-18%, [la:tər]-19.7%
*hats /hæts/	[ <b>ha:t</b> ]-57.4%, [hit]-24.6%, [hintəs]-9.8%, [heit]-8.2%
^huts /hʌts/	[ha:t]-24.6%, [hʊt]-6.6%, [hət]-3.3%, [het]-1.6%, [heit]-1.6%, [hʌnt]-4.9%, [ha:nt]-8.2%, [ <b>hʌts</b> ]-49.2%
^come /kʌm/	[ka:m]-6.6%, [kem]-3.3%, [ <b>kʌm</b> ]-90.2%
^calm /ka:m/	[ <b>ka:lm</b> ]-50.8%, [kilim]-8.2%, [kilem]-4.9%, [ka:m]-4.9% [kilaim]11.5%, [kileim]-6.6%, [kilm]-3.3%, [kila:m]-9.8%,
^shut /ʃʌt/	[ʃot]-9.8%, [ʃu:t]-4.9%, [ʃʊt]-6.6%, [ʃa:t]-4.9%, [ʃit]-3.3%, [ʃaʊt]-4.9%, [ʃit]-3.3%, [ <b>ʃʌt</b> ]-62.3%
^shot /ʃa:t/ or /ʃɒt/	[ʃʊt]-8.2%, [ʃʌt]-4.9%, [ʃu:t]-9.8%, [ <b>ʃɒt</b> ]-77.1%
^dip /dɪp/	[dep]-4.9%, [daɪp]-1.6%, [ <b>dɪp</b> ]-93.5%
^deep /di:p/	[ <b>dɪp</b> ]-73.8%, [dep]-6.6%, [daɪp]-4.9%, [di:p]-14.5%
^full /fʊl/	[fɒl]-6.6%, [fiyʊl]-3.3%, [ <b>fʊl</b> ]-90.2%
^fool /fu:l/	[ <b>fʊl</b> ]-68.9%, [fɒl]-26.2%, [fu:l]-4.9%
<get /get/	[get]-0% error
*gate /geɪt/	[ <b>get</b> ]-91.8%, [ga:t]-4.9%, [gæt]-3.3%
^hate /heit/	[hot]-3.3%, [ha:t]-6.6%, [hart]-14.8%, [ <b>heit</b> ]-77%
^height /hait/	[heit]-49%, [ <b>hait</b> ]-51%
<buy /baɪ/	[baɪ]-0% error

<boy /boɪ/	[boɪ]-0% error
^hear /hɪr/	[her]-3.3%, [hər]-1.6%, [heɪr]-1.6%, <b>[hɪr]-93.4%</b>
^hair /heɪr/	<b>[her]-95.1%</b> , [hɪr]-1.6%, [haɪr]-3.3%
^now /naʊ/	[no]-3.3%, <b>[naʊ]-96.7%</b>
^no /noʊ/	<b>[no]-93.4%</b> , [noʊ]-6.6%

### Words-pairs with Final -C vs. Final -Ci

English	As pronounced by the subjects
^eight /eɪt/	[et]-3.3%, <b>[eɪt]-96.7%</b>
^eighty /eɪtɪ/	[et]-1.6%, [eɪt]-6.6%, <b>[eɪtɪ]-91.8%</b>
^luck /lʌk/	[laɪk]-3.3%, [la:k]-4.9%, [lɪk]-1.6%, [lʊk]-4.9%, [lok]-1.6%, <b>[lʌk]-83.6%</b>
^lucky /lʌkɪ/	<b>[lʌk]-62.3%</b> , [laɪkɪ]-11.5%, [lakɪ]-6.6%, [lokɪ]-3.3%, [la:yɪkɪ]-1.6%, [lɪkɪ]-8.2%, [lʌkɪ]-8.2%
<sit /sɪt/	[sɪt]-0% error
<city /sɪtɪ/	[sɪtɪ]-0% error
^difficult /dɪfɪkəlt/	[dɪfɪkəlt]-4.9%, [dɪfekəlt]-1.6%, [dɪfəkəlt]-1.6%, <b>[dɪfɪkəlt]-91.8%</b>
^difficulty /dɪfɪkəltɪ/	[dɪfɪkəlt]-23%, <b>[dɪfɪkəltɪ]-65.6%</b> , [dɪfekəltɪ]-4.9%, [dɪfəkəltɪ]-6.6%

### Consonant Clusters

English	As pronounced by the subjects
^blow /bloʊ/	[bɪloʊ]-23%, [bɪlo]-6.6%, [bɪlou]-49%, <b>[bloʊ]-65.6%</b>

^below /bɪləʊ/	[bləʊ]-4.9%, [bɪləʊ]-4.9%, <b>[bɪləʊ]-90.2%</b>
^flow /fləʊ/	[fləʊ]-6.6%, [fɪləʊ]-18%, [fɪləʊ]-23%, [fələʊ]-9.8%, [flo]-4.9%, <b>[fləʊ]-37.7%</b>
^follow /fa:ləʊ/or /fɔ:ləʊ/	[fləʊ]-4.9%, [fɪləʊ]-3.3%, <b>[fɔ:ləʊ]-91.8%</b>
*sport /spɔ:rt/	<b>[ɪspɔ:rt]-80.3%</b> , [sɪpɔ:rt]-8.2%, [ɪspɔ:rit]-11.5%
^support /səpɔ:rt/	[sa:port]-16.4%, [ɪspɔ:rt]-6.6%, <b>[səpɔ:rt]-77%</b>
^disprove /dɪspru:v/	[dɪsəprəʊv]-21.3%, [dɪspɪrəʊv]-29.5%, [dɪsɒrəʊv]-8.2%, [dɪsəpəʊ]-6.6%, <b>[dɪspru:v]-34.4%</b>
^disapprove /dɪsə'pru:v/	[dɪs-əprəʊv]-3.3%, [dɪspɪrəʊv]-1.6%, [dɪsəpɪjəʊv]-1.6%, <b>[dɪsəpru:v]-93.5%</b>
*strong /stra:ŋ/ or /strɔ:ŋ/	<b>[ɪstɪrɒŋ]-85.2%</b> , [ɪsɪtrɔ-nɪŋ]-14.8%
*students /studənts/	<b>[ɪstudentɪs]-60.7%</b> , [ɪstudənɪts]-31.1%, [ɪstudent-s]-8.2%
*three /θri:/	[sɪrɪ]-100% error
*passed /pæst/	<b>[pa:sd]-54.1%</b> , [pa:sɪd]-45.9%
*health /helθ/	<b>[helz]-91.8%</b> , [helzɪ]-8.2%
*thanked /θæŋkt/	<b>[tɑ:nkɪd]-65.6%</b> , [tɪnkɪd]-19.7%, [tɪnk]-6.6%, [sa:nkɪd]-8.2%
*sixth /sɪksθ/	<b>[sɪksɪz]-47.3%</b> , [sɪkɪtɪz]-4.9%, [sɪks]-11.5%, [sɪksɪs]-19.7%, [sɪkɪstɪz]-16.4%
*scripts /skrɪpts/	<b>[ɪskɪrɪptəs]-39.3%</b> , <b>[ɪs-krɪ-ptɪs]-37.7%</b> , [ɪskɪrɪptɪs]- 13.1%, [ɪskɪrɪbɪtɪs]-9.8%
*strengths /streŋθs/	<b>[ɪstɪrɛŋɡɪz]-73.8%</b> , [ɪstɪrɛŋɡ-s]-18%, [ɪstɪrɛn-gɪz]-8.2%

The analysis of the different parts of the test is given below. Although there were a great many problems related to the production of each word and sentence, the analysis takes into consideration only the **target** sounds, words, stress patterns, and intonation contours. As with the discrimination test, the notation “n.d.” means “no data” and a dash (–) means only zero, one, or two errors occurred.

### 5.2.1. Consonant Sounds

The English consonant sounds, in general, did not create difficulty for Amharic native speakers. However, the consonant sounds /v/, /θ/, /ð/, /ʒ/, /dʒ/, /tʃ/, and /ŋ/ were found to be troublesome for most of the subjects to pronounce.

**Table 5.2.1: Results of the Production of Fricatives**

Target sound	Initial/Medial		Final		Problems and/or comments
	#	%	#	%	
/v/	–	–	46	75.4	/v/ is pronounced wrongly as /f/ finally
/θ/	56	91.8	–	–	/θ/ is pronounced wrongly as /s/ in <i>think</i>
	52	85.5	–	–	/θ/ is pronounced wrongly as /t/ in <i>thin</i>
	–	–	61	100	/θ/ is pronounced wrongly as /z/ in <i>cloth</i>
/ð/	61	100	61	100	/ð/ is pronounced wrongly as /z/ anywhere
/ʒ/	44	72.1	–	–	/ʒ/ is wrongly pronounced as /dʒ/ medially

/v/

Most subjects had no problem in producing /v/ word-initially as in *veal*. The problem arose when this sound occurred word-finally as in *five*. Accordingly, 46 subjects (75.4%) mispronounced *five* /faɪv/ as *fife* /faɪf/.

/θ/

Very few students could produce this sound as native American English speakers do. Rather, in initial position, the subjects substituted /θ/ either by /s/ or by /t/. Interestingly, the two relevant test words yielded very different mistakes. Thus, 56 out of 61 subjects (91.8%) pronounced /θ/ in *think* /θɪŋk/ as /s/, while 52 (85.2%) pronounced the /θ/ in *thin* /θɪn/ as /t/. Moreover, all 61

subjects (100%) mispronounced the final /θ/ in *cloth* /klɒ:θ/ as /z/. This would seem to indicate that these words are lexicalized in “Ethiopian English” as /sɪŋk/, /tɪn/ and /kloz/ respectively.

/ð/

Not one of the subjects could say this sound correctly. They pronounced /ð/ in *then* /ðen/ as /z/.

/ʒ/

This sound also caused a problem for most subjects to produce: 44 (72.1%) subjects pronounced the /ʒ/ in *measure* as /dʒ/. This means that *major* /meɪdʒər/ and *measure* /meʒər/ were pronounced (almost) identically by most subjects.

**Table 5.2.2: Results of the Production of Affricates**

Target Phoneme	Initial		Final		Problems and/or comments
	#	%	#	%	
/tʃ/	25	41	n.d	n.d.	/tʃ/ is pronounced wrongly as /dʒ/
/dʒ/	6	9.8	n.d.	n.d.	/dʒ/ is pronounced wrongly as /tʃ/

/tʃ/

25 of the total subjects (41%) mispronounced the /tʃ/ in *choke* /tʃoʊk/ as /ʃ/, /dʒ/ or /k/.

/dʒ/

For most subjects this sound caused no problem. Only 6 students (9.8%) replaced the initial /dʒ/ in *joke* with /tʃ/, so that *choke* and *joke* were pronounced identically. Moreover, 10 subjects (16.4%) wrongly pronounced the medial /dʒ/ in *major* as /ʒ/.

**Table 5.2.3: Results of the Production of Nasal**

Target Sound	Final position		Problems and/or comments
	#	%	
/ŋ/	61	100	/ŋ/ is pronounced wrongly as /n/ or /n-g/

/ŋ/

It was found that all 61 subjects (100%) mispronounced the /ŋ/ in *sing*. In some cases, the subjects omitted /g/ and pronounced *sing* /sɪŋ/ as *sin* /sɪn/. The subjects always had the nasal /n/; some subjects added /g/ (= /ŋg/), separating /n/ and /g/ with a brief epenthetic vowel (transcribed here as /sɪn-g/).

### 5.2.2. Simple Vowels (Monophthongs) and Diphthongs

English has many more vowel sounds than Amharic. As a result, Amharic learners of English use their relatively small number of vowels to cover the American English twelve pure vowels (monophthongs) and the five diphthongs.

In this study, some pure vowel sounds and diphthongs were found to be especially difficult areas for the subjects. The following problems were observed and are presented in the table followed by discussion. (The table only gives representative examples of the sounds-pairs; for full numerical data, see sec. 5.2.)

**Table 5.2.4: Results of the Production of Simple Vowels and Diphthongs**

Word	Target sound	Wrong substitution	Total wrong respondents	
			#	%
bell	/e/	/ɪ/-19.7%, /o/	19	31.1
bill	/ɪ/	/e/-13.1%, /aɪ/, /o/, /ʊ/, /oɪ/	23	37.7
letter	/e/	—	—	—
latter	/æ/	/e/-80.3%, /a/	61	100
hats	/æ/	/a:-57.4%, /ɪ/, /eɪ/, /ɪn/	61	100
huts	/ʌ/	/a:-24.6%, /ʊ/, /ə/, /e/, /eɪ/, /ʌn/, /a:n/	31	50.8
come	/ʌ/	/e/, /a:/	6	9.8
calm	/a:/	/a:ɪ/-50.8%, /ɪli/, /ɪle/, /ɪlaɪ/, /ɪleɪ/, /ɪlm/, /ɪla:/	58	95.1
shut	/ʌ/	/o/-9.8%, /u:/ /a:/, /ʊ/, /aʊ/, /ɪ/, /i/	23	37.7
shot	/ɔ/	/ʊ/, /ʌ/, /u:-9.8%	14	23

dip	/ɪ/	/e/, /aɪ/	4	6.5
deep	/i:/	/e/, /aɪ/, /ɪ/-73.8%	52	85.2
full	/ʊ/	/o/, /iyu/	6	9.8
fool	/u:/	/ʊ/-68.9%, /o/	58	95.1
get	/e/	–	–	–
gate	/eɪ/	/e/-91.8%, /a/, /ə/	61	100
hate	/eɪ/	/o/, /a:/, /aɪ/-14.8%	14	23
height	/aɪ/	/eɪ/-49%	30	49
buy	/aɪ/	–	–	–
boy	/oɪ/	–	–	–
now	/aʊ/	/o/	–	–
no	/oʊ/	/o/-93.4	57	93.4

/e/ and /ɪ/

It was observed that 19 out of 61 subjects (31.1%) mispronounced the /e/ in *bell* /bel/ as /ɪ, o/; 23 (37.7%) wrongly substituted the /ɪ/ in *hill* /bɪl/ with /e, aɪ, o, ʊ, oɪ/. Similar problem were observed in *left* /left/ and *lift* /lɪft/.

/e/ and /æ/

Although all 61 subjects pronounced *letter* correctly (with /e/), it was also found that all subjects (100%) mispronounced the /æ/ in *latter*, either as /e/ (80.3% errors) or /a:/ (19.7%).

/æ/ and /ʌ/

This pair of sounds was one of the most difficult for the subjects to pronounce. All 61 subjects (100%) mispronounced the /æ/ in *hats* /hæts/ as /a:, ɪ, eɪ, ɪn/. By contrast, 31 subjects (50.8%) replaced the /ʌ/ in *huts* /hʌts/ with /a:, ʊ, ə, e, eɪ, ʌn, a:n/. Among these mistakes, the vowel /ʌ/ in *huts* /hʌts/ was occasionally substituted by the short vowel /ʊ/ (6.6%); this could be attributed to the similar orthography of words like *put* /pʊt/. (Note also that most subjects failed to pronounce the final /s/ at all.)

/ʌ/ and /a:/

Most students had no serious problems related to the /ʌ/ in *come* /kʌm/; only 6 subjects (9.8%) mispronounced it as /e, a:/. By contrast, 58 subjects (95.1%) pronounced *calm* /kɑ:m) badly. Almost all the subjects pronounced the letter /l/, and some had strange pronunciations like *kilim*, *klim*.

/ʌ/ and /o/

It was observed that 23 subjects (37.7%) mispronounced the /ʌ/ in *shut* /ʃʌt/. Rather, they substituted the /ʌ/ in *shut* with /u:, a:, ʊ, aʊ, ɪ, i/. Conversely, 14 subjects (23%) replaced the /ɔ/ or /ɑ:/ in *shot* /ʃɔt/ with /ʊ, ʌ, u:/.

/ɪ/ and /i:/

Only 4 subjects (6.6%) had difficulty in pronouncing the /ɪ/ in *dip* /dɪp/; they replaced the /ɪ/ with /e/ or /aɪ/. By contrast, a large majority of subjects (85.2%) mispronounced the /i:/ in *deep* /di:p/ as /ɪ, e, aɪ/, with 73.8, 6.6, and 4.9 percentage errors respectively. This problem arose, predictably, because Amharic does not have the phonemic feature of vowel length; similarly for the pairs /ʊ, u:/ and /e, eɪ/.

/ʊ/ and /u:/

58 subjects (95.1%) failed to pronounce the /u:/ in *fool* /fu:l/ correctly; instead they substituted it with /ʊ, o/ with percentage errors 68.9% and 26.2% respectively. On the other hand, only 6 students (9.8%) mispronounced the /ʊ/ in *full* /fʊl/ as /o, iyu/.

/e/ and /eɪ/

None of the students had difficulty in pronouncing the /e/ in *get* correctly. Contrary to this, all 61 subjects (100%) mispronounced the /eɪ/ in *gate* as /e, a:, ə/ with 91.8%, 4.9%, and 3.3% errors respectively .

/eɪ/ and /aɪ/

Some subjects pronounced the /eɪ/ in *hate* and the /aɪ/ in *height* identically, though different subjects had different pronunciations for the pair. It was found that 14 out of 61 subjects (23%) mispronounced the /eɪ/ in *hate* /heit/ as /o, a:, aɪ/; 30 subjects (49%) failed to correctly pronounce the /aɪ/ in *height*, instead substituting it by /eɪ/.

/aɪ/ and /ɔɪ/

These two diphthongs didn't create any problems for the subjects, as in *buy* /baɪ/ and *boy* /bɔɪ/.

/aʊ/ and /oʊ/

In this study, hardly any subjects had difficulty in producing the /aʊ/ in *now*. By contrast, almost all subjects (93.4%) pronounced *no* /noʊ/ with a monophthong /o/ rather than the correct diphthong /oʊ/.

### 5.2.3. Words-pairs with Final -C vs. Final -Ci

The following table presents both the data and the results for this part of the production test.

**Table 5.2.5: Results of the Production of Word-pairs with Final -C vs. Final -Ci**

English words	Target Syllable Type	Total wrong respondents		Problems and/or comments
		#	%	
eight	-C	–	–	No significant problem
eighty	-Ci	5	8.2	<i>eighty</i> was wrongly pronounced as /et/ or /eit/
luck	-C	10	16.4	/ʌ/ was mispronounced as /aɪ, a:, ɪ, ʊ, o/
lucky	-Ci	38	62.3	Final /-kɪ/ was wrongly pronounced as /-k/
sit	-C	–	–	No problem
city	-Ci	–	–	No problem
difficult	-C	5	8.2	<i>difficult</i> was mispronounced as /dɪfɪkalt/, /dɪfekalt/, /dɪfəkalt/
difficulty	-Ci	14	23	Final /-tɪ/ was wrongly pronounced as /-t/

It is clear from the above data that in general most subjects had no problem in the production of words with C and Ci syllables. There was one exception: 38 out of the total subjects (62.3%) dropped the final /ɪ/ in *lucky* and pronounced the word the same as *luck*. My impression is that usually there is no lexical difference between *luck* and *lucky* for the subjects; both are treated as *luck*. Plausibly, this is because the vowel gets devoiced, and thus it becomes difficult to hear.

From the above results, it is clear that Amharic learners of English had more difficulty in pronouncing English words with final -Ci than words with final -C, though (except for *lucky*) the error percentage is low.

#### 5.2.4. Consonant Clusters

In the following table and discussion, as already noted above, a hyphen indicates a short pause, as in /dis-pruv/.

**Table 5.2.6: Results of the Production of Consonant Clusters**

Word	Target English Cluster	Total wrong respondents		Problems and/or comments
		#	%	
<u>bl</u> ow	/bl/	21	34.4	<i>bl</i> was pronounced wrongly as <i>bil</i> , <i>bil</i>
below	No cluster	6	9.8	Wrongly pronounced as <i>bilov</i> , <i>blou</i> , <i>bilov</i>
<u>fl</u> ow	/fl/	38	62.3	<i>fl</i> was pronounced wrongly as <i>fil</i> , <i>fol</i> , <i>fil</i>
follow	No cluster	5	8.2	Wrongly pronounced as <i>flov</i> , <i>filov</i>
<u>sp</u> ort	/sp/, /rt/	61	100	<i>sp</i> was wrongly pronounced as <i>isp</i> , <i>sip</i>
support	/rt/	14	23	Wrongly pronounced as <i>sa:pɔrt</i> , <i>ispɔrt</i>
<u>dispr</u> ove	/spr/	40	65.6	<i>spr</i> was pronounced wrongly as <i>səpr</i> , <i>spə</i> , <i>spor</i>
disapprove	Simple cluster /pr/	4	6.5	Wrongly pronounced as <i>dispərov</i> , <i>disapɪyruv</i>
<u>str</u> ong	/str/	61	100	<i>str</i> was pronounced wrongly as <i>istɪr</i> , <i>isitɪr</i>
stud <u>ents</u>	/nts/	61	100	<i>nts</i> was pronounced wrongly as <i>ntis</i> , <i>nits</i> , <i>nt-s</i>
<u>thr</u> ee	/θr/	61	100	<i>θri:</i> was pronounced wrongly as <i>siri</i>
he <u>alth</u>	/lθ	61	100	<i>lθ</i> was pronounced wrongly as <i>lz</i> , <i>lzɪ</i>
than <u>ked</u>	/ŋkt/	61	100	<i>ŋkt</i> was pronounced wrongly as <i>nkid</i> , <i>nikd</i>
s <u>ixth</u>	/ksθ/	61	100	<i>ksθ</i> was pronounced wrongly as <i>ksiz</i> , <i>ksitiz</i> , <i>ksis</i>

<u>scripts</u>	/skr/, /pts/	61	100	<i>skr</i> was pronounced wrongly as <i>iskir</i> , <i>is-kr</i> <i>pts</i> was pronounced wrongly as <i>ptas</i> , <i>ptis</i> , <i>btis</i>
<u>strengths</u>	/str/, /ŋθs/	61	100	<i>ŋθs</i> was pronounced wrongly as <i>ngisz</i> , <i>n-gizis</i>

Clearly, the subjects had much more difficulty with sequences of three consonants at any position (word-initially, medially, and finally) than with sequences of two consonants. The table above shows that not one of the subjects could produce the words *strong*, *disprove*, *students*, *thanked*, *sixth*, *scripts*, and *strengths* correctly as native English speakers do. For example, initially the word *strong* /strɒŋ/ was pronounced as /istirɒŋ/ or /istiron-g/; medially, the subjects pronounced *disprove* /dispru:v/ as /disipruv/, /dis-pruv/, /dispərov/ or /dis-apruv/. In final position, the word *students* /studənts/ was pronounced by the subjects as /istudentis/, /studentis/, /istudent-s/ or /studentis/.

Turning now to two-consonant clusters, 21 students (34.4%) pronounced *blow* disyllabically like *below*, with pronunciations /bilou/, /bilau/, /bilo/ and /bilou/. 38 subjects (62.3%) pronounced *flow* disyllabically like *follow*, with pronunciations /folou/, /filou/, /fīlau/, /fɔ:lou/, /fɔlo/ and /flou/.

Another word that caused great difficulty was the word *health*. To this effect, all 61 subjects (100%) pronounced the word *health* /helθ/ with /z/, as /helzɪ/ or /helz/. Not surprisingly, a clear /l/ was used (as in Amharic) in place of the “dark” velarized /l/ of American English.

### 5.2.5. Stress

#### a) Word Level

The following sentences were used in the production test to test stress patterns on disyllabic words in context.

1. Mr. Smith has finally agreed to sign the new contract.
2. Do you think that steel will contract when it is cooled?
3. They got lost in the desert.
4. Will he desert his team?
5. What is the object on the table?
6. They won't object to your decision.

7. In order to park here, you need a permit.
8. Would you permit her request?
9. The rebel army destroyed the city.
10. They rebelled at this unwelcome suggestion.
11. Record this record, please.
12. Please, present this present to Mr. Abel.
13. They suspect the suspects.

The results of this part of the production test were:

**Table 5.2.7: Results of the Production of Stress: Word Level**

Target stressed word	Breakdown by error types						Total wrong respondents	
	N=V, V=N		No stress		Other			
	#	%	#	%	#	%	#	%
• con'tract	21	34.4	4	6.6	2	3.3	27	44.3
'contract	33	54.1	6	9.8	3	4.9	42	<b>68.9</b>
• de'sert	18	29.5	2	3.3	–	–	20	32.8
'desert	25	41	4	6.6	3	4.9	32	<b>52.5</b>
• ob'ject	6	9.8	3	4.9	1	1.6	10	16.4
'object	32	52.5	6	9.8	2	3.3	40	<b>65.6</b>
• per'mit	20	32.8	17	27.9	10	16.4	47	77
'permit	23	37.7	9	14.8	6	9.8	38	62.3
• re'bel(-ed)	10	16.4	4	6.6	5	8.2	19	31.1
'rebel	39	63.9	7	11.5	2	3.3	48	<b>78.7</b>
• re'cord	17	27.9	4	6.6	–	–	21	34.4
'record	41	67.2	3	4.9	5	8.2	49	<b>80.3</b>
• pre'sent	9	14.8	4	6.6	–	–	13	21.3
'present	39	63.9	6	9.8	3	4.9	48	<b>78.7</b>
• sus'pect	22	36.1	14	23	8	13.1	44	72.1
'suspect	34	55.7	8	13.1	7	11.5	49	<b>80.3</b>

The basic pattern in the data is clear: the major problem was with nouns. In all cases except one (*permit*), the error percentage with nouns was higher. In 4 of the cases, over ¾ of the students stressed the nouns wrong. By contrast, with verbs the errors were much lower: only two verbs (*permit*, *suspect*) had an error percentage over 70%. One verb (*contract*) had 44.3%, and the others were below 35%.

Why should the principal difficulty be with nouns? In discussing this problem with my advisor, we came up with the following two possible reasons. First, the typical English noun pattern, written here as 'σ σ, is not really stressed-followed-by-stressless. Rather, the second syllable bears a secondary stress: 'σ `σ. The idea is that this pattern, with two adjacent syllables bearing (some kind of) stress, is especially foreign to Amharic speakers. That is, it is already difficult for them to assign *one* stress in a word; but to assign *two* adjacent stresses is even harder. By contrast, the English verb stress pattern σ 'σ truly involves an unstressed syllable before the stressed one. A second possible analysis suggests that the more “natural” stress pattern for the subjects was to always put the stress on the second syllable of all the disyllabic words, both nouns and verbs indiscriminately.

Two words showed strange patterns, which I cannot explain. First is the word *permit*, where more students made a mistake with the verb (77%) than the noun (62.3%). Second, although *suspect* (as expected) had a higher percentage of errors with the noun (80.3%) than the verb (72.5%), the error percentage was very high for both.

Given the fact that in Amharic stress is not phonemic, it is interesting and surprising that relatively few of the subjects failed to assign stress at all (“No stress”). Only 3.3-27.9% of the subjects didn't put stress at all (2 cases over 20% “No stress”; 3 cases 10-15%; the remaining 11 cases all under 10%). This shows that in general, subjects do know that English words (both nouns and verbs) require stress; but they get the stress **placement** wrong. We can say that Amharic learners of English do not seem to know that a shift in stress placement can bring grammatical and/or lexical meaning changes.

The category “Other” included cases where the subjects did assign stress, but created a new prosodic pattern. A typical case was trisyllabic pronunciation with an epenthetic vowel, which was itself often stress-bearing. Not many students made errors of this type (1.6-16.4%).

In summary, this instability of stress pattern placement by Amharic learners of English surely emanates most basically from the inherent difference between both languages: English is a stressed-time language, while Amharic is not.

**b) On Sentence Level**

In English, it is obvious that one of the words in a sentence will have prominence over the other. In a sentence stress, the words that are likely to have a greater force or prominence are lexical or content words: nouns, verbs, adjectives and adverbs. The stressed word typically expresses the focus of the entire sentence; thus, Sole 1991:151) states “Sentence stress emphasizes the portion of the utterance that is most important for the speaker or that the speaker wants the listeners to concentrate on.”

The following sentences were used for the production test of this study. In this part students were asked to read the sentences out loud, putting a stress on the underlined words:

1. John has bought a new car.
2. I said she might consider a new haircut.
3. I don't think he should get the job.
4. John has bought a new car.
5. I don't think he should get the job.
6. I said she might consider a new haircut.
7. I don't think he should get that job.
8. I said she might consider a new haircut.
9. I didn't say he stole the money.
10. I didn't say he stole the money.

**Table 5.2.8: Results of the Production of Stress: Sentence Level**

Item #	Stressed Words with their Percentage as Pronounced by the Subjects							
1	<u>John-31.1</u>	has-0	bought-18	new-13.1	car-19.7			no stress-18
2	I-0	said- <u>36.1</u>	<u>she-27.9</u>	might-11.5	consider-0	new-3.3	haircut-8.2	no stress-13.1
3	I-0	don't-13.1	think-21.3	<u>he-32.8</u>	should-0	get-11.5	job-13.1	no stress-8.2

4	John-11.5	has-0	bought-14.8	<b>new-31.1</b>	car-23			no stress-19.7
5	I-3.3	don't-11.5	think-13.1	he-24.6	should-3.3	get-11.5	<b>job-27.9</b>	no stress-8.2
6	I-8.2	said-19.7	she-11.5	might-8.2	consider-19.7	new-19.7	<b>haircut-11.5</b>	no stress-11.5
7	I-8.5	don't-9.8	think-6.6	he-13.1	get-11.5	<b>that-41</b>	job-8.2	no stress-1.6
8	<b>I-19.7</b>	said-23	she-16.4	might-3.3	consider-0	new-18	haircut-4.9	no stress-14.8
9	I-9.8	didn't-0	say-21.3	he-23	stole-6.6	the-0	<b>money-19.7</b>	no stress-19.7
10	I-6.6	didn't-0	say-19.7	<b>he-39.3</b>	stole-8.2	the-0	money-3.3	no stress-23

**Note: The bold word in each sentence shows the correct stressed word. The underlined percentage is the “winner”.**

In this production test, the subjects were explicitly given information as to what the “right” answer should be. But, as can be vividly seen from the table, they did not do well at all in translating this information into a “correctly stressed” sentence. There were no sentences where a majority of subjects produced the correct pattern of sentence stress. In two cases (sentences 7 and 10) around 40% got the correct answer (strangely, these two sentences involved stressed **pronouns**; one might have expected pronouns to favor stresslessness). In four other examples (1, 3, 4, 5) the “correct” answer did have the highest percentage (31.1, 32.8, 31.1, 27.9); but these percentages were all relatively low (around 30%), and did not differ greatly from the second-best answers (19.7, 21.3, 23, 24.6% respectively). In the other four cases (2, 6, 8, 9), the preferred answer was not the “correct” one; but the differences between the preferred answer and the “correct” answer were again not very big. These patterns can be seen in the following 3 tables:

Sentence	7	10
% correct answer	41	39.3
% second-highest	13.1	23

Best examples

Sentence	1	3	4	5
% correct answer	31.1	32.8	31.1	27.9
% second-highest	19.7	21.3	23	24.6

Correct answer weakly preferred

Sentence	2	6	8	9
% preferred answer	36.1	19.7	23	23
% correct answer	27.9	11.5	19.7	19.7

Correct answer weakly dispreferred

Also, for half of the sentences there were 3 or even 4 stress patterns that all did comparably well; these are sentence 1, 4, 6, 8, 9 (and perhaps 10). It is also noteworthy that for 7 of the sentences, 10-25% of the subjects produced no perceptible stress at all. A final note is that in all 4 of the sentences where the preferred answer was not the correct answer, the main verb *said* got a high percentage (see sentences 2, 6, 8, and 9).

Overall, the results are not quite random; but they seem **almost** random. Clearly, subjects do not have a very clear idea of how to produce English sentence stress, even when they are explicitly told which word to stress. They have not really learned the general English patterns for sentence stress. This problem happened since in Amharic phonemic stress as such does not really exist, neither at word level nor at sentence level. Moreover, Amharic stress (insofar as it can be detected at all) is often characterized as being instable, relative weak and variable in position (Wedekind & Wedekind 1990:1-6, Ullendorff 1955:197, Alemayehu 1987:23, Hayward & Hayward 1999:45). The contrast with English is enormous.

### 5.2.6. Intonation

Typologically, both Amharic and English are intonational languages. However, intonation works quite differently in the two languages. That is, English and Amharic use different intonation contours to express a given discourse meaning.

The following sentences were used for this part of the production test. Most of these sentences (1, 2, 4, 5, 7, 8, 9, 10, 12, 13) are the same as in the discrimination test; others (3, 6, 11, 14; numbered in **bold**) are new here.

1. The girl is a nurse.
2. Are you ready to act this conversation out?
- 3.** He bought tomatoes, orange, apples, and plums.
4. Did he finish his work?
5. Who is your friend?
- 6.** When he talked, everybody kept silent.
7. Do you prefer tea or coffee?
8. After he had eaten his lunch, he went to school.
9. Come here.
10. When did he become the Mayor of the city?
- 11.** A: Can I have some more tea?  
B: Certainly.
12. He can draw the picture, can't he?
13. You mean you can't come?
- 14.** John walked down the street, turned the corner, went to Robel's house, knocked on the door, and went in.

The data are presented in the table below. As with the discrimination test, grammatically similar sentences are grouped together, yielding 8 groups.

**Table 5.2.9: Results of the Production of Intonation**

Type of Sentence	Item #	Correct Intonation Contour	Wrong Respondents		Total Wrong Respondents		Criterion
			#	%	#	%	
Statement	1	Falling	4	6.6	9	14.8	2, 3 wrong
	6	Falling	27	44.3			
	8	Falling	6	9.8			
Wh-question	5	Falling	42	68.9	45	73.8	1, 2 wrong
	10	Falling	46	75.4			
Yes/No question	2	Rising	6	9.8	16	26.2	2, 3 wrong
	4	Rising	20	32.8			
	11	Rising	25	41			
Imperative	9	Falling	27	44.3	27	44.3	
Tag question	12	Rising	51	83.6	51	83.6	
Final alternative	7	Falling	39	63.9	39	63.9	
Echo-question	13	Rising	50	82	50	82	
List	3	Falling	37	60.7	56	91.8	1, 2 wrong
	14	Rising/Falling	49	80.3			

In the above table, two conventions were used as criteria for figuring the “Total wrong respondents”. In the two groups that were represented by three items (“Statement”: 1, 6, 8 and “Yes/no question”: 2, 4, 11), the total indicates subjects who made errors on 2 or 3 of the items (but not just one error). In the two groups that were represented by two items (“Wh-question”: 5, 10 and “List”: 3, 14), the total indicates subjects who made an error either on one or both of the items. The overall totals (final column) in all these cases do not equal the sum of the individual items because of the criteria used (thus under “Yes/No question”,  $6+20+25 \neq 16$ ).

**a. Statement**

In both Amharic and English, statements should be said in falling intonation. Although only a few subjects (6.6%, 9.8%) failed to pronounce correctly sentences 1 and 8 respectively, about

44% misused the intonation contour of sentence 6. The difference may be because sentence 6 is a complex sentence, produced with a slight rise in the first half. Overall, 14.8% of the subjects mispronounced the intonation contour of the statements according to the set criteria. This is the lowest error percentage of all the groups.

#### **b. Yes/no question**

Yes/no questions should be said in rising intonation in both languages. There was a notable difference between sentences 2 (9.8% errors), 4 (32.8% errors) and 11 (41% errors). As I explained in the discrimination test (section 5.1.7.), sentence 4 begins with the added element *did* (Do-support), an area where Ethiopian students often have difficulty. This added *did* may be relatively unfamiliar, hence the larger number of errors. In item 11, I suggest that subjects were attracted by the expected answer of “B” (which they were explicitly shown, and which should be said in falling intonation), and so they unconsciously also uttered the question (“A”) in falling intonation. Overall, 26.2% of the subjects were scored as “wrong”, the 2<sup>nd</sup>-lowest group.

#### **c. Wh-question**

In both Amharic and English Wh-questions should be said in falling intonation. Most subjects (73.8%) did not say either sentence 5 or 10 using the “correct” intonation contour. This may arise due to the fact that, in writing, Wh-questions end with a printed question mark, just like Yes/No questions, and both types seek an answer from the listener. Subject may thus “put the types together” in their minds and give both of them the distinctive rising intonation seen with Yes/No questions. (Additionally, some Wh-questions in both English and Amharic do in fact have rising intonation: “What did you say?” “Min alk?”)

#### **d. Imperative**

Imperatives should be said in falling intonation. However, in this study, 27 out of 61 subjects (44.3%) failed to pronounce sentence 9 with the “correct” intonation contour. This problem may be due to the fact that, in Amharic (though not in English), in giving a command, the speaker may often use a higher pitch to express his/her emotion; for the subjects this higher pitch is similar to rising intonation.

#### **e. Tag question**

It was found that 51 subjects (83.6%) mispronounced the final rising intonation contour of sentence 12, producing instead a falling intonation. This is the second-highest error percentage of all the categories. The errors may be since most students, having produced the statement first (with falling intonation), did not give due attention to the added tag question (*can't he?*) which has a marked prosodic rise.

#### **f. Final alternative**

Here most students (63.9%) did not use the correct (falling) intonation contour of sentence 7. I think that this problem may stem from because the first alternative is said in rising intonation, and subjects may feel that the final alternative should be said in the same rising intonation contour. The reason given for "Wh-questions" can also apply here: the influence of the printed question mark.

#### **g. Echo question**

The error percentage with the echo question (82%) is almost as high as with the tag question (83.6%). The reason is probably similar for both types. Similar to tag questions, echo questions have the structure of a statement, this time without even a tag to mark the utterance as being a question. Therefore, subjects (82%) may wrongly have pronounced the intonation contour of sentence 13 as if it were that of a real statement (falling), instead of the correct rising contour.

#### **h. List intonation**

The most difficult area for the subjects to produce was putting appropriate intonation contour on a series of items, both a list of things (sentence 3) and a list of activities (sentence 14). To this effect, 91.8% of the total subjects produced sentences 3 and 14 wrongly. This may be because each of the non-final items in the series should be said with rising intonation (rising-rising-rising...), with only the final item falling. So subjects mistakenly pronounced the final item (*plums; went in*) the same as the preceding items, with rising intonation. (This reason is similar to that given for "Final alternative" above.)

In summary, the results of the production test show that, although both rising and falling intonation contours do exist in Amharic, Amharic learners of English were found unable to produce the above English sentences with correct intonation. It is noteworthy that most subjects had no serious problem in producing Yes/No questions and statements, which are among the commonest and most basic sentence types. Structural explanations were suggested for the very high error percentages of Tag questions and Echo questions. For Final alternatives and Lists, subjects seem to wrongly generalize the rising contour of the non-final items. Wh-questions may be “intonationally assimilated” to the distinctive rising contour of Yes/No questions. Finally, I suggested that the rising contour of Imperatives may represent interference from Amharic—the only type where Amharic influence is clearly in evidence.

### 5.3. Classification of Errors

#### 5.3.1. Phonemic Errors

<b>A. Consonants</b> <b>Phonemic Distinctions Between:</b>	<b>English (Target word)</b>	<b>Wrong Substitution by the subjects</b>
/v/ vs. /f/	/v/ five	/f/ fife
/ð/ vs. /z/	/ð/ then, breathe	/z/ zen, breeze
/θ/ vs. /s/ or /t/	/θ/ thin, think	/t/ tin or sin, /s/ sink
/ʒ/ vs. /dʒ/	/ʒ/ measure	/dʒ/ major
/tʃ/ vs. /ʃ/ or /k/	/tʃ/ choke	/ʃ/ shock, /k/ kok
/ŋ/ vs. /n/ or /ŋk/	/ŋ/ sing	/n/ sin, /k/ sink
<b>B. Pure Vowels and Diphthongs</b> <b>Phonemic Distinctions Between:</b>		
/æ/ vs. /e/	/æ/ latter	/e/ letter
/ʌ/ vs. /u:/	/ʌ/ shut	/u:/ shoot
/ɔ:/ vs. /oʊ/	/ɔ:/ hall	/oʊ/ hole
/i:/ vs. /ɪ/	/i:/ deep, leave	/ɪ/ dip, live
/u:/ vs. /ʊ/	/u:/ fool	/ʊ/ full
/eɪ/ vs. /e/	/eɪ/ gate	/e/ get
/aʊ/ vs. /oʊ/	/aʊ/ now	/oʊ/ no

### 5.3.2. Phonetic Errors

- The dark [ɪ] in English *health* is changed by the subjects to clear [i].
- Unmotivated insertion of the alveolar [n] in words which don't even have the letter <n> in the orthography of the word; many subjects said the word *hat* /hæt/ as /ha:nt/. This fascinating problem will hopefully be the subject of future research. (Other anecdotal examples are confusions between *invasion/invention* and between *crutch/crunch*.)
- Pronunciation of English long vowels as phonetic monophthongs.

### 5.3.3. Distributional Errors

The following distributional errors were observed in the production of English words as pronounced by most subjects.

#### a) Syllable Structure

English Syllable Structure	Wrong Substitution by the Subjects
CCCVC	CCiCVCC or iCCiCVCC
strong /strɒŋ/	/stirɒŋ/, /istirɒŋ/
CVCCC	CVCCiC
<u>stud</u> ents /studənts/	/stud <u>ent</u> is/, /istud <u>ent</u> is/
CCV	CiCV
three /θri/	/siri/
CVCC	CVCCV
health /helθ/	/helzi/
CCVCC	iCCVCC
sport /spɔ:rt/	/ispɔ:rt/

## b) Consonant Clusters

Types of clusters	English consonant clusters example	Wrong substitutions	Description of errors
1. Final 2-consonant clusters /-lθ/	health/helθ/	/helz/	change /θ/ to /z/
2. Final 3-consonant clusters /-nts/  /-ŋkt/ /-ksθ/ /-pts/ /-ŋθs/	stud <u>en</u> ts/studənts/  thank <u>ed</u> /θæŋkt/ six <u>th</u> /sɪksθ/ scrip <u>ts</u> /skɪpt/ streng <u>th</u> s/streŋθs/	/stud <u>en</u> t/, /stud <u>en</u> tɪs/  /tɑ:n <u>k</u> /, /sɑ:n <u>k</u> / /sɪ <u>k</u> s/ /skɪ <u>p</u> t/ /streng <u>i</u> z/, /streng <u>i</u> z/	insert /i/, drop /s/, change /ə/ to /e/ drop final /t/ drop final /θ/ drop /s/ insert /i/, change /θ/ to /z/, drop /s/
3. Medial consonant clusters /-spr-/	dis <u>pr</u> ove/dɪspru:v/	/dɪsəpru:v/, /dɪspərov/, /dɪspɒrov/, /dɪspɪrov/	insert /o/, /i/ or /ə/ (both /əp/ and /pə/)
4. Initial consonant clusters i) CC-      ii) CCC-	<u>th</u> ree/θri/  <u>sp</u> ort/spɔ:rt/ <u>fl</u> ow/flou/  <u>bl</u> ow/blou/ <u>st</u> udent/stu:dənt/  <u>str</u> ong/strɔ:ŋ/ <u>scr</u> ipt/skɪpt/	/sɪri/  /ɪspɔ:rt/ /fɪlou/, /fɪloʊ/, /fɪlaʊ/, /folou/ /bɪlou/, /bɪlo/, /bɪloʊ/ /ɪst <u>u</u> dentɪs/, /ɪst <u>u</u> dənɪts/, /ɪst <u>u</u> dent-s/ /ɪstɪrɒŋ/, /ɪsɪtrɒ-ŋ/ /ɪskɪr <u>ep</u> t/, /ɪs-kɪrɪ-pt/, /ɪskɪrɪp <u>it</u> /, /ɪskɪrɪb <u>it</u> /	insert /i/, change /θ/ to /s/ insert /i/ insert /i/, /ɪ/ or /o/  insert /i/ or /ɪ/ insert /i/  insert /i/  insert /i/

#### **5.3.4. Stress Placement Errors on Word and Sentence Level**

Several recurrent error patterns emerged among Amharic speakers of English. Misplacement of word stress most commonly targeted the second syllable of a disyllabic word regardless of word class (noun vs. verb), unlike native speakers, who differentiate noun-stress vs. verb-stress. On the sentence level, any word in a sentence (or no word at all) may be stressed by the Amharic-speaking subjects, although native English speakers systematically vary the stress to change the syntactic meaning of the sentence.

The results of the production test more specifically indicated that Amharic learners of English usually could not put the appropriate stress pattern on the words used in this study, due to the fact that Amharic has no phonological stress on either word or sentence level (L1 transfer).

#### **5.3.5. Intonation: Errors in Using Intonation Contours**

Intonation patterns of English and Amharic have some characteristics in common such as final-falling intonation pattern as used in statement, command, and wh-questions and rising intonation for yes/no-questions in conveying the intended speech-act meaning of the utterances. However, the difference between the two languages is that the degree of pitch changes utilized in creating appropriate rising and falling intonation contour in each language. This in other words means Amharic and English have different pitch functions in uttering a sentence.

Amharic learners of English would often fail to display the wider pitch range employed in creating intonation patterns, relying heavily on their use of the narrower pitch range of Amharic intonation patterns. For example, even if an Amharic native student intends to say a sentence as a statement, an English native speaker might misinterpret the statement as a question or assume that the speaker has not finished speaking yet. When an Amharic speaker of English fails to lower the pitch level sufficiently at the end of a sentence, the utterance might be perceived by a native speaker as an intention to continue the speech, even where this is not the speaker's intention at all. Moreover, narrower use of pitch ranges by Amharic learners of English in their speech may be (mis)interpreted by native speakers as a sign of boredom or lack of interest.

### 5.3.6. Summary of Errors where no L1 Interference is Apparent

The following errors and/or error patterns have no evident connection with L1 interference.

/k/ and /g/ exist in both Amharic and English. Although students had no serious problem in discriminating initial /k/ vs. /g/, many students wrongly perceived the /g/ in *log* as the /k/ in *lock*. Moreover, in the production of *measure*, most subjects wrongly substituted /z/ with /dʒ/. Again, /z/ and /dʒ/ are both consonant phonemes of Amharic and English. Although /tʃ/ and /dʒ/ are the consonant phonemes of Amharic and English, a significant number of students wrongly perceived and mispronounced the /tʃ/ in *choke* as the /dʒ/ in *joke*. The perception of /g/ as /k/ in word final position is explained by the loss of voice contrast. In English, when a voiced obstruent comes at word final position, the vowel preceding it becomes longer. If the final consonant is voiceless, the vowel preceding it will be short. Students did not recognize the length difference between the two preceding vowels and concentrated on the voice of the final consonant, which often gets neutralized. In the case of /tʃ/ and /dʒ/, a possible explanation could be given as follow. /dʒ/ is usually identified by the short duration of the friction it has instead of the voice quality (O'Connor 1980). However, Amharic speakers tended to focus on the voice quality only.

In Amharic, there are normal words that end with /-nz/ like /wənz/ “river”. However, a significant numbers of subjects were unable to perceive the final /-nz/ in the English word *chains*, mistaking it for *Chinese*.

Although CV is a normal syllable type of both Amharic and English, some subjects mispronounced the final -Ci in *lucky* /lʌki/ and in *difficulty* /dɪfɪkəltɪ/ as /lʌk/ and /dɪfɪkəlt/. This could be simply lexical differences between “Ethiopian English” and Standard English; in my experience, Ethiopians strongly tend to say *luck* for *lucky*, and often say *difficult* for *difficulty*.

Amharic and English are both intonational languages. But in this study, Amharic learners of English had problems in discriminating and pronouncing the intonation of English wh-questions, expressions of agreement, and statements—which all have a falling intonation contour in both Amharic and English. These intonation errors which do not reflect Amharic intonation may simply reflect total confusion on the part of the subjects.

All of these are promising areas for future research.

#### 5.4. Data for Rank Order Correlation Coefficient: Discrimination vs. Production

Subject Number	Discrimination		Production	
	Test Result (out of 137)	Rank	Test Result (out of 113)	Rank
1.	83	20	55	13.5
2.	87	31	54	9.5
3.	85	26.5	60	31
4.	80	12	46	1.5
5.	88	34.5	67	47.5
6.	89	37	59	26
7.	83	20	58	21
8.	95	51.5	68	50.5
9.	86	28.5	59	26
10.	45	1	59	26
11.	92	44.5	54	9.5
12.	90	39.5	58	21
13.	94	48	72	55.5
14.	92	44.5	75	58.5
15.	94	48	60	31
16.	98	54	71	54
17.	86	28.5	55	13.5
18.	90	39.5	51	6
19.	80	12	69	52.5
20.	87	31	52	7
21.	95	51.5	73	57
22.	84	25	57	17.5
23.	77	6	66	45.5
24.	90	39.5	70	53
25.	91	42	68	50.5
26.	101	57	67	47.5
27.	100	55.5	58	21
28.	84	24	54	9.5
29.	103	59.5	68	50.5
30.	81	15	57	17.5
31.	81	15	66	45.5
32.	62	2	49	3
33.	78	8	46	1.5
34.	82	17	64	41.5
35.	109	61	72	55.5
36.	85	26.5	75	58.5
37.	95	51.5	61	33.5
38.	88	34.5	59	26

39.	95	51.5	61	33.5
40.	94	48	79	61
41.	79	10	63	39
42.	88	34.5	60	31
43.	92	44.5	64	41.5
44.	88	34.5	65	43.5
45.	103	59.5	76	60
46.	81	15	59	26
47.	74	5	63	39
48.	102	58	62	36
49.	83	20	57	17.5
50.	92	44.5	68	50.5
51.	72	3	65	43.5
52.	100	55.5	62	36
53.	73	4	59	26
54.	83	20	50	4.5
55.	90	39.5	55	13.5
56.	84	24	57	17.5
57.	87	31	62	36
58.	78	8	50	45
59.	78	8	54	9.5
60.	80	12	55	13.5
61.	83	20	63	39

The total sum of the discrimination test is 5289

The average of the discrimination test is 86.7 (63.3%)

The standard deviation of the discrimination test is 10.18

The total sum of the production test is 3741

The average of production test is 61.3 (54.2%)

The standard deviation of the production test is 7.55

The rank order correlation coefficient ( $r_s$ ) is 0.49

The rank order correlation coefficient [(rs)=0.49] indicates that the two tests (discrimination and production) are positively correlated, i.e. there is a good relationship between the two. In other words students who are good at discrimination tend to do well in production and vice versa.

On the other hand, the average scores, 86.7 (63.3%) for discrimination test and 61.3 (54.2%) for production, reveal that the subjects are somewhat better at discrimination than production. I tested this difference statistically and found that there is a significant difference between the two mean scores. Moreover the standard deviations (S.D) of 10.18 (for discrimination test) and 7.55 (for production) show that there are larger differences amongst the subjects in discrimination than in production—a fact which I find puzzling.

## CHAPTER SIX

### Conclusion and Recommendations

#### 6.1. Conclusions

The main objective of this study was to investigate the impact of Amharic phonology on the learning of English pronunciation by comparing the segmental and suprasegmental features of both languages and thereby to find out the difficulties Amharic learners of English may have in pronouncing certain English sounds, words and sentences.

To this effect, two tests (discrimination and production) were administered to 61 native speakers of Amharic. The subjects, in general, were found to be fairly good at discriminating. The problem was with production in which they were relatively weaker. Thus, the following problems were observed in this study.

Many of the pairs of consonants that caused problems for the subjects involved a sound which does not exist in the native language. These are /ð, θ, ŋ, v, p/.

Several of the pairs of vowels that caused problems differed in that one is a monophthong and the other a diphthong. Certain un-Amharic diphthongs (/eɪ, oʊ/) were found to be one of the difficult sounds for the subjects to discriminate and produce. Other diphthongs (e.g. /aʊ/, /oɪ/, /aɪ/), which exist phonetically in Amharic, caused little difficulty. In other cases, monophthongs with the vowel qualities /æ, ʌ, ɔ/ and the length distinction of /i:, u:, a:/ created discrimination and production difficulties for Amharic learners of English. The reason is almost certainly that these vowels are absent categories in Amharic.

Consonant clusters with three elements (some initial and final two-consonant clusters as well) were found to be troublesome in any position. This can also be attributed to the differences in the syllable structures and the permissible and/or impermissible combination of phonemes of the two languages. In some ways final clusters constituted a greater problem than initial clusters for the subjects.

Stress (both word and sentence levels) was found to be very difficult for the subjects to discriminate and produce. (In my concluding comments here, I will partly repeat the final

remarks from earlier sections.) Amharic learners of English do not seem to know that a shift in stress placement can bring lexical and/or grammatical meaning changes. Subjects do not have a very clear idea of how to produce English sentence stress, even when they are explicitly told which word to stress. They have not really learned the general English patterns for sentence stress. This problem happened since Amharic stress as such does not really exist, neither at word level nor at sentence level, neither phonemically nor phonetically.

Although both rising and falling intonation contours do exist in Amharic, Amharic learners of English were found unable to produce some English sentences with correct intonation. It is noteworthy that most subjects had no serious problem in producing Yes/No questions and Statements, which are among the commonest and most basic sentence types. However, the majority of the subjects had problems with Tag questions, Echo questions, Final alternatives, Lists, Wh-questions and Imperatives.

## **6.2.Recommendations**

Based on the literature reviewed and the results of the study, the following recommendations are made.

- Primary school English teachers should themselves be well-trained in English pronunciation and in adequate skills for teaching English pronunciation.
- English teachers should first single out difficult sounds, and then prepare sets of minimal pairs which contain these difficult sounds and let their students practice them.
- Worksheets can be prepared for the students with pairs of words placed alongside each other, illustrating various positions of the target sound in the words.
- Production should be given more attention than discrimination in drill exercises, due to the fact that the subjects were found to be weaker in production than in discrimination.
- No sound is an island. English teachers should avoid demonstration of out-of-context sounds or asking learners to produce sounds in isolation. Sounds occur in syllables, surrounded by other sounds, so teachers should give the learners a real word or a phonetically plausible nonsense word.

- To overcome the difficulty with producing diphthongs, English teachers should draw attention to the movements of the mouth involved in terms of “start” and “finish” position. Besides, English teachers should demonstrate and let students practice minimal pairs which contain a pure vowel and a diphthong (e.g. *get* vs. *gate*).
- In teaching consonant clusters, teachers will have to decide for themselves which clusters to include and which to leave out. For this, the main consideration will be the frequency of occurrence in speech, and to a certain extent, the amount of difficulty for the pupils. It is imperative that teachers should give more attention to final clusters. To a certain extent one is justified in saying that final clusters are more important than initial clusters, for mispronunciation of final clusters (involving -s, -t) can make it impossible to speak grammatical English.
- Since wrong stress placement can cause misunderstanding between the hearer and speaker, English teachers should tell and show their students practically how to put stress on word and sentence level. Moreover, it is advisable to use recorded cassettes which contain stressed syllables and words to provide native-speaker models for the students.
- Intonation should be studied carefully for it expresses attitude, emotion, hatred, etc. It is, therefore, better for students to practice pronouncing sentences with various pitches (Rising/Falling), and teachers should help their students’ attempts.
- Learning to pronounce a language is a very complex task, and as with any other complex learning task, the learning process can be facilitated if both the learners and the teacher make unreserved efforts. As Heidi Dulay et al. note, “to be successful, a learner need not have a special inborn talent for learning languages. Learners and teachers simply need to ‘do it right’” (Heidi Dulay et al. 1982:3).
- Both segmental and suprasegmental features should be given adequate coverage in the lesson. (Current English language pedagogy in Ethiopia barely deals with suprasegmentals.) It is also necessary to make students aware that pronunciation incorporates suprasegmental in addition to segmental phonemes and that learning suprasegmentals properly will help them a lot in speaking intelligibly.
- Writers of textbooks on English should include teaching English pronunciation as one of the main focuses of language teaching.

- Teachers should make a major effort to convince students that correct English pronunciation “really does matter”. Errors like *leave/live* can lead to major misunderstandings and breakdown in communication.
- Finally, the teaching of pronunciation should be given due attention from the very earliest stages. In the words of P. Hubbard et al.:

The teaching of pronunciation is not an optional luxury to be left to advanced level studies of the language at university ... pronunciation should be an integral part of English teaching program from the early stages, just as the teaching of structures and Vocabulary. (Peter Hubbard et al. 1985:20)

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## Appendix A

### TEST I: DISCRIMINATION TEST

Sex : ( Male/Female)

Year \_\_\_\_\_

Age \_\_\_\_\_

Department \_\_\_\_\_

#### PART I: Consonant Sounds

A. Which one of the following pair of words is said? Underline the word you have heard in each pair.

1. a) fast  
vast

b) feel  
veal

c) fife  
five

d) safe  
save

2. a) den  
then

b) dare  
there

c) close  
clothe

d) sink  
think

e) seal  
zeal

f) thin  
tin

3. a) rib  
rip

b) pit  
bit

c) pull  
bull

4. a) tip  
dip

b) mate  
made

c) mat  
mad

5. a) class  
glass

b) could  
good

c) lock  
log

6. a) leisure  
ledger

b) lesion  
legion

c) major  
measure

7. a) raw  
low

b) row  
low

c) reap  
leap

8. a) ring  
rig

b) bang  
back

c) dung  
dug

duck

10. a) sing  
sink

b) sting  
stick

11. a) watch  
wash

b) witch  
wish

12. a) choke  
joke

b) rich  
ridge

c) such  
judge

13. a) sin  
sing

b) sun  
sung

c) sinner  
singer

14. a) path  
pass

b) boat  
both

c) breathe  
breeze

d) sick  
thick

## PART II. Vowel Sounds

### B. Listen carefully and underline the word which you have heard in each pair.

- |            |            |            |
|------------|------------|------------|
| 1. a) bell | 4. a) come | 7. a) hut  |
| bill       | calm       | hot        |
| b) hid     | 5. a) bit  | b) rub     |
| head       | beat       | rob        |
| c) sit     | b) dip     | c) shut    |
| set        | deep       | shot       |
| 2. a) beg  | c) lip     | d) luck    |
| bag        | leap       | lock       |
| b) guess   | 6. a) full | 8. a) live |
| gas        | fool       | leave      |
| c) lend    | b) pull    | b) ship    |
| land       | pool       | sheep      |
| d) letter  |            | c) test    |
| latter     |            | taste      |
| 3. a) cat  |            | d) home    |
| cut        |            | hum        |
| b) hat     |            |            |
| hut        |            |            |
| c) mad     |            |            |
| mud        |            |            |

## PART III. Diphthongs: Long Vowels

### C. Listen and decide which of the pairs of words is said, and then underline the word which you have heard.

- |            |            |           |
|------------|------------|-----------|
| 1. a) debt | 3. a) hall | 5. a) buy |
| date       | hole       | boy       |
| b) get     | b) law     | b) bile   |
| gate       | low        | boil      |
| c) fell    | 4. a) ear  | c) vice   |
| fail       | air        | voice     |
| d) pen     | b) fear    | 6. a) now |
| pain       | fair       | no        |
| 2. a) bay  | c) hear    | b) loud   |
| buy        | hair       | load      |
| b) late    | d) deep    | c) town   |
| light      | dare       | tone      |
| c) hate    |            |           |
| height     |            |           |

**PART IV. Words with Closed and Opened Syllables.**

**D. Which one of the following pairs of words have you heard; the first or the second? Show the word you have heard in each pair by underlying.**

- |                 |                   |                         |
|-----------------|-------------------|-------------------------|
| 1. Eight/eighty | 4. Fun/funny      | 7. Sit/city             |
| 2. Luck/lucky   | 5. Honest/honesty | 8. Difficult/difficulty |
| 3. Part/party   | 6. Dirt/dirty     | 9. Six/sixty            |
|                 |                   | 10. German/Germany      |

**PART V. Consonant Clusters**

**E. Which word is pronounced- the first or the second? Underline the one you have heard in each pair.**

- |                        |                   |
|------------------------|-------------------|
| 1. blow/below          | 5. flood/fluid    |
| 2. flow/follow         | 6. place/palace   |
| 3. sport/support       | 7. chains/Chinese |
| 4. disprove/disapprove |                   |

**PART VI. STRESS**

**A. On Word Level**

**Which syllable is stressed; the first or the second? Underline the syllable that you have heard stressed.**

- |              |             |
|--------------|-------------|
| 1. con.tract | 6. re.cord  |
| 2. de.sert   | 7. pre.sent |
| 3. ob.ject   | 8. sus.pect |
| 4. per.mit   | 9. sub.ject |
| 5. re.bel    | 10. in.sult |

**B. Sentence Level : Which word is stressed (said loudly and lengthened) in each of the following sentences? Please underline the word.**

1. John has bought a new car.
2. I said she might consider a new haircut.
3. I don't think he should get the job.
4. John has bought a new car.
5. I don't think he should get the job.
6. I said she might consider a new haircut.
7. I don't think he should get that job.

8. I said she might consider a new haircut.
9. I didn't say he stole the money.

## **PART VII. INTONATION**

**Which of the following sentences is said in rising intonation and which is said in falling intonation?**

**Please, write 'F' for falling and 'R' for rising intonation.**

1. The girl is a nurse.
2. Are you ready to act this conversation out?
3. Yes, you are right.
4. What kind of flowers did she buy?
5. Did he finish his work?
6. Who is your friend?
7. Do you prefer tea or coffee?
8. Certainly.
9. After he had eaten his lunch, he went to school.
10. Come here.
11. When did he become the Mayor of the city?
12. Don't drive so fast.
13. He can draw the picture, can't he?
14. You mean you can't come?

## Appendix B

### TEST II: PRODUCTION TEST

Sex \_\_\_\_\_ Age \_\_\_\_\_ Year \_\_\_\_\_ Code No. \_\_\_\_\_

**INSTRUCTIONS:** Read the following sentences carefully on to the tape-recorder. Read naturally; use your normal pronunciation. Make a short pause after each sentence. Record your sex, age, year and code number before you read the sentences.

#### PART I: Consonant Sounds

1. He prefers veal to pork.
2. Five of the passengers died in that accident.
3. It is safe to assume that Zar'a Ya'cob was one of the most important kings of Ethiopia.
4. I think she is thin.
5. Then, we went to the party.
6. Her zeal to learn English is very strong.
7. You are a bit late.
8. The mad cat is sitting on the mat.
9. He is our dorm-mate.
10. This shirt is made in China.
11. I could play football when I was young.
12. It is good to be respectful.
13. She wants to tell us a joke.
14. If you smoke in this room, we will choke.
15. They are to draw the map of Africa.
16. We would like to take a nap after lunch.
17. Theft is against the law.
18. This piece of meat is raw.
19. Bring that big bag here.
20. You can't sing if you are sick.
21. These students speak Amharic.
22. The word buzz has two z's.
23. Please, close the door.
24. Yesterday, I bought some cloth.
25. My major area is English.
26. Appropriate measures should be taken to improve the quality of education.

## **PART II. Pure Vowels and Diphthongs.**

1. The bell has rung.
2. Did you receive the bill?
3. Who gave you a lift home?
4. What's wrong with your left hand?
5. Can you write a letter in English?
6. Which one is better, the former or the latter?
7. In Spain, girls don't often wear hats.
8. The peasants built a number of huts.
9. Can you come to the party tonight?
10. Mulu is a very calm girl.
11. Did you shut the door?
12. Did you hear the shot?
13. The boys dip their toys into the water.
14. The water-well is very deep.
15. The pail is full of soil.
16. He acted like a fool.
17. They are to get a job.
18. This gate is usually locked.
19. Do you hate to get up early?
20. What is the height of that wall?
21. You must buy another car.
22. The boy kicked the dog.
23. We can't hear you.
24. Comb your hair.
25. I must go now.
26. There is no rain today.

## **PART III. Words with Closed and Opened Syllables**

1. I have eight birr, but Alem has eighty.
2. It is bad luck to lose. It is lucky to win.
3. Sit down, please. Our city is attractive.
4. The test was difficult. The difficulty was due to lack of clarity.

## **PART IV. Consonant Clusters**

1. The wind blows fast.
2. The temperature is below zero.
3. The river flows through the jungle.
4. This follows that.
5. Football is a popular sport.
6. We support your idea.
7. Can you disprove this theory?
8. The priest will disapprove of your act.

9. Taye is a strong boxer.
10. A number of students came to the meeting.
11. Three of them have passed the test.
12. Those children are in poor health.
13. He should be thanked for his exemplary deeds.
14. He got the sixth rank in his class.
15. Different stone scripts tell us what happened in the past.
16. The strengths of everyone should be seen practically.

**PART V. STRESS: Read each of the following sentences naturally.**

**A. Word level**

14. Mr. Smith has finally agreed to sign the new contract.
15. Do you think that steel will contract when it is cooled?
16. They got lost in the desert.
17. Will he desert his team?
18. What is the object on the table?
19. They won't object to your decision.
20. In order to park here, you need a permit.
21. Would you permit her request?
22. The rebel army destroyed the city.
23. They rebelled at this unwelcome suggestion.
24. Record this record, please.
25. Please, present this present to Mr. Abel.
26. They suspect the suspects.

**B. Sentence Stress: please, pronounce these sentences. Pay attention to put the appropriate stress pattern on each of the underlined words.**

11. John has bought a new car.
12. I said she might consider a new haircut.
13. I don't think he should get the job.
14. John has bought a new car.
15. I don't think he should get the job.
16. I said she might consider a new haircut.
17. I don't think he should get that job.
18. I said she might consider a new haircut.
19. I didn't say he stole the money.
20. I didn't say he stole the money.

**PART VI. INTONATION.**

**Read each of the following sentences naturally on to the tape recorder.**

1. The girl is a nurse.
2. Are you ready to act this conversation out?

3. He bought tomatoes, orange, apples, and plums.
4. Did he finish his work?
5. Who is your friend?
6. When he talked, everybody kept silent.
7. Do you prefer tea or coffee?
8. After he had eaten his lunch, he went to school.
9. Come here.
10. When did he become the Mayor of the city?
11. A: Can I have some more tea?  
B: Certainly.
12. He can draw the picture, can't he?
13. You mean you can't come?
14. John walked down the street, turned the corner, went to Robel's house, knocked on the door, and went in.

## DECLARATION

I, the undersigned, declare that this thesis is my original work and that all sources/materials used in this paper have been duly acknowledged.

Name: TADESSE WELDEGEBREAL BAYMOT

Signature  \_\_\_\_\_

Place: Addis Ababa University (Department of Linguistics)

Date of submission: June 2012