

THE PHONOLOGICAL PROBLEMS INVOLVED
IN IMPROVING THE ORAL ENGLISH
OF ILOKO SPEAKERS

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Nobleza Castro Asuncion

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This is to certify that the
thesis entitled

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By
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A DISSERTATION

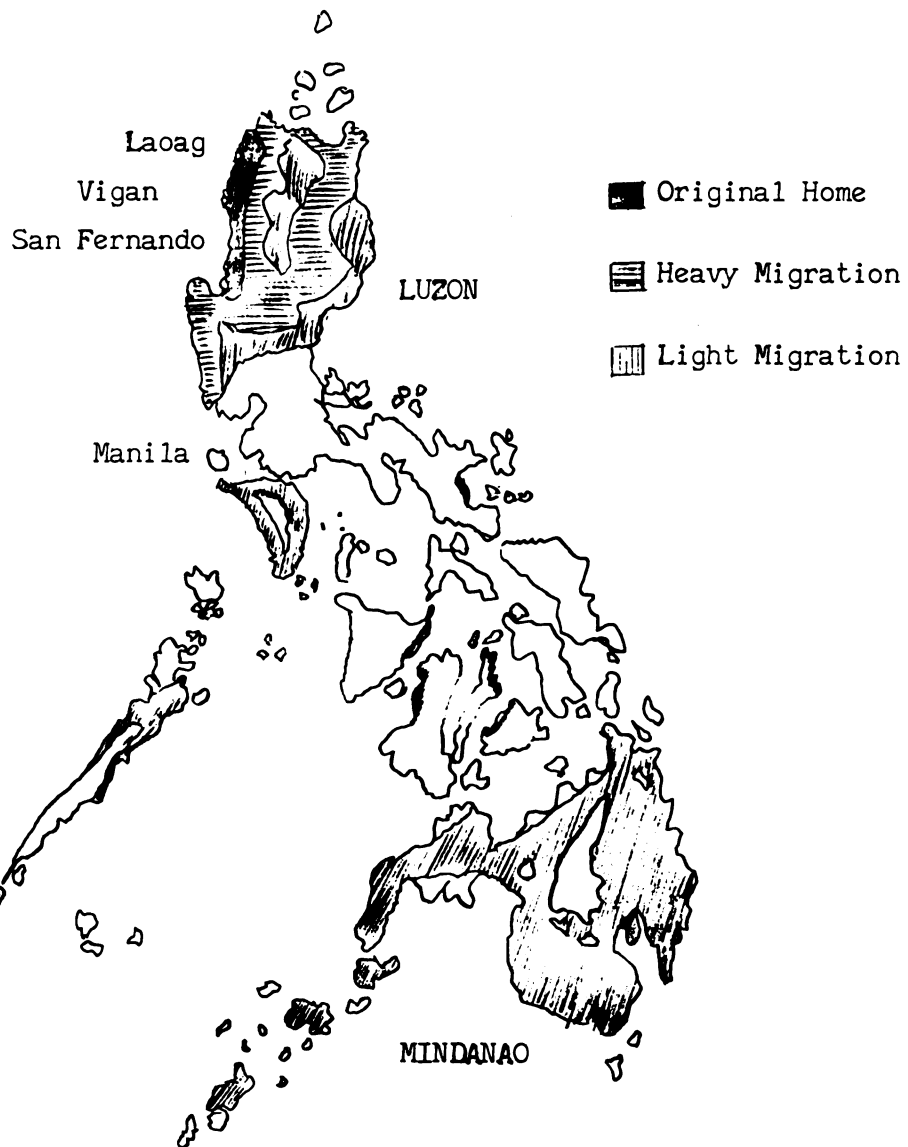
Submitted to the College of Communication Arts
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DOCTOR OF PHILOSOPHY

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1960



MAP OF THE PHILIPPINES SHOWING ILOKO-SPEAKING PEOPLES
AND THEIR MIGRATIONS

(From Survey of Iloko Literature, L. Yabes, 1936)

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AN ABSTRACT

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ABSTRACT

THE PHONOLOGICAL PROBLEMS INVOLVED IN IMPROVING THE ORAL ENGLISH OF ILOKO SPEAKERS

The purpose of this study was to examine the problems involved in improving the oral English of educated Iloko speakers.

A linguistic analysis of Iloko phonology was made to determine the elements of the sound system. Four informants were used, three recorded material on tape and the fourth provided the face-to-face contact for analysis with the analyst who also speaks Iloko as her native tongue.

A linguistic analysis of middle-western American English phonology was obtained and an item by item contrastive analysis was made between the two languages. The segmental and suprasegmental phonemes were examined and compared on points of articulation, distribution, arrangement and rhythm.

The comparison showed that there were English sounds not present in Iloko. Since they would be unfamiliar to the Iloko speaker, they would find them difficult to master. The predicted difficult sounds were: [p' t' k'] /c j f v θ ð z ʃ ʒ ʒ ɔ oy ow/.

The predictions were verified by obtaining samples of English speech of Iloko speakers. The speech situations were divided into two groups: I and II. Group I was the formal situation (scripts were provided the subjects a few minutes before recording time), and Group II was the informal situation, unrehearsed and no scripts provided. Cuts were made of the taped corpus and Group I comprised four Iloko speakers. Group II comprised six speakers. The former was analyzed by two professional speech correctionists, one of them, also an audiologist; and a general

speech and language teacher. The latter was analyzed by five advanced speech correction majors. They all spoke middle-western American English.

They were asked to listen to the Ilocanos speaking in English on tape and were provided with scripts where they would write the "error" above the indicated sound. The standard speech upon which they based their judgements was their concept of the speech of an educated middle-western American speaker. They were asked to judge on intelligibility and on how close the utterance came to the standard speech.

A total of sixteen sounds were predicted to be difficult. Results proved the prediction. The sounds were then ranked according to percentage of difficulty in initial, medial and final positions. The ranking was made on intervals of 20 - from least difficult, not quite as difficult, difficult, very difficult, most difficult, from 0 percent to 100 percent respectively.

The implications of this study are:

1. In teaching speech improvement to educated Ilocanos, there should be more emphasis on the problematical sounds (those not present in Iloko phonology) and less time spent on teaching the "easy" sounds (Iloko sounds which are phonetically similar, in a rough way, to English),
2. The curriculum maker should revise existing courses of study to meet the needs of the students and make the results of this analysis and others similar to it as his guides in preparing new materials,
3. New methods suggested by speech and linguistic science should be made the core of instruction.

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CHAPTER I

INTRODUCTION

Background of the Study

The Philippines lie off the southeast coast of Asia, a little above the equator. They consist of a chain of islands stretching almost a thousand miles from north to south. There are 7,100 islands and islets of which about 4,000 are unnamed. This physical dispersal has contributed to the development of about 87 languages, all belonging to the Malayo-Polynesian family.

Nine of the Philippine languages are distributed over sufficiently large areas to be considered major forms. These are:

Tagalog, spoken in Manila, Marinduque, Mindoro, the provinces of Batangas, Quezon, Cavite, Rizal, Laguna, Bulacan, Bataan, Nueva Ecija and part of Tarlac;

Sugbuanon, spoken in the province of Cebu and part of Mindanao;

Iloko, spoken in the provinces of La Union, Abra, Ilocos Sur and Ilocos Norte;

Hiligaynon, spoken in Negros Occidental and Iloilo;

Samarnon, spoken in the provinces of Samar and Leyte;

Bikol, spoken in the provinces of Camarines Norte, Camarines Sur, Albay and Sorsogon;

Pampangan, spoken in the provinces of Pampanga and Tarlac;

Pangasinan, spoken in the province of Pangasinan and part of Tarlac;

Moro Magindanaw, spoken in Lanao and other provinces of Mindanao.

The following table refers to the language situation in the country in 1948:

	No. of people able to speak the language	Percentage
English	7,156,420	37.2
Tagalog	7,126,913	37.1
Sugbuanon	4,840,708	25.2
Iloko	2,687,861	14.0
Bikol	1,535,411	12.7
Samarnon	1,226,413	6.4
Pampango	707,291	3.7 ¹

The other two languages are not reported. The statistics are not conclusive insofar as English is concerned. A good number of people who have gone through the elementary grades and who know only a few words of English include themselves among those who speak the language.²

Since the Philippines has been occupied in most of her modern history by foreign powers, the languages used in the government, schools, business and society have been the mother tongue of the successive occupying countries. Spanish was used for nearly four hundred years, from the sixteenth to the nineteenth centuries, and English has been in use from 1898 to the present time. The official languages of the Philippines today are English, Spanish and Tagalog, with the first preferred by most of the educated people.

From the time the Americans occupied the islands in 1898 to the present, the language of instruction has been English. Since this is not the native tongue of the Filipinos, its widespread use has contributed to the unusual language problem of the country. As Clifford Prator reports:

The language problem in the Philippines has traditionally been a composite of several closely related questions; what is to be the

¹The Philippines, *A Handbook of Information*, (Manila: Philippine Information Agency, 1955), pp. 8-9.

²Ibid.

language of the home, national language, the language of instruction... The question of the language of instruction appears to be the most difficult phase of the total problem and the one toward the solution of which least progress has been made.³

History of English Instruction

English was first introduced to the Filipinos when the United States Armed Forces opened seven schools in Manila on August 13, 1898. Each of these schools was under the direction of a soldier who was told to teach in English. America's avowed intention in her occupation of the islands was to prepare the people for self government. Education was conceived to be a prerequisite to the development of social and political responsibility in the individual. Preparation for self government meant that equal opportunities for education should be provided to the rich and poor alike. A proper system of public education was believed to be fundamental in preparing the Filipinos for independence; therefore the Philippine public school system was inaugurated. Act. No. 74 passed by the Philippine Commission on January 21, 1901, marked its inception. President McKinley's instructions dated April 7, 1900 were:

It will be the duty of the Commission to promote and to improve the system of instruction already inaugurated by the military authorities. In doing this, they should regard as of first importance the extension of a system of primary instruction which shall be free to all and which shall tend to fit the people for the duties of citizenship and for the ordinary avocations of a civilized community....

In view of the great number of languages spoken by the different tribes it is especially important to the prosperity of the islands that a common medium of communication may be established and it is obviously desirable that this medium should be the English language.⁴

³Clifford Prator, Language Teaching in the Philippines, A Report, (Manila: U.S. Educational Foundation, 1950) pp. 8-9.

⁴UNESCO-Philippine Educational Foundation, Fifty Years of Education for Freedom, 1901-1951, (Manila: National Printing Co., 1953) pp. 72.

The arrival of trained American teachers in 1901 established firmly the use of English as the language of instruction. Official sanction was given to it when, in 1907, the schools were gradually required to use it. This policy was in keeping with the primary objectives of the United States government, one of which was to:

...supplant the Spanish language by making English the lingua franca for the Far East, the basic language of instruction and the medium of intercourse and communication.⁵

Advantages in the Use of English as Language of Instruction

The use of English as the lingua franca of the Filipinos has given them distinct advantages, some of which are:

1. unifying the people socially, politically and economically,
2. keeping them up with current events and trends of thinking in the international field,
3. giving them their rightful place among the family of nations, English being an international language,
4. bringing them the wealth of culture of other lands from the past to the present, and
5. keeping them abreast of the advances in technical fields of study as well as the natural sciences so readily available in English.⁶

English Instruction in the Schools

The curriculum program in the elementary schools in the Philippines provides for the use of English as the medium of instruction from grade levels III-VII. Grades I and II use the vernacular of the particular region as the medium for teaching, with English as one of the required subjects. It is believed that the student upon reaching grade III

⁵Ibid., p. 99.

⁶Clifford Prator, Language Teaching in the Philippines, A Report, (Manila: U.S. Educational Foundation, 1950) p. 8. This will hereafter be referred to as: Clifford Prator, Language Teaching.

will have acquired sufficient control of the language to enable him to use it in expressing his ideas and in learning new concepts.

In high schools and colleges, English is the sole medium for teaching. There is a dearth of instructional aids and advanced study materials in the national language or in the vernaculars if any of them are used as the language of instruction. The fact that English can furnish all these and give the students access to the accumulated knowledge and experience of mankind makes it a convenient medium to use. It also provides for the Filipino student an opportunity to interpret and communicate his experiences and those of his country to other parts of the world and to be readily understood. As the students utilize English in most of their activities, they become more proficient in it, thus opening wider areas of interchange in the cause of world peace.

The Deterioration of English Instruction

Despite the widespread use of English in the islands, instruction in this area has rapidly declined in quality. The Filipinization of the public school system, wherein Filipino teachers gradually took over the teaching duties that were formerly performed by the Americans, has been one of the major causes in its deterioration. This has taken on almost alarming proportions, especially since the language problem is closely related to the success of Philippine education. The observations of Dr. Clifford Prator in 1950 still hold true to a large extent today.

He comments in his study:

The success of the almost all Philippine education depends at present on the degree of the pupil's command of English, the medium of instruction; and yet that command, which by the very nature of things it would be impossible to develop too highly, seems to have deteriorated rapidly in recent years.⁷

⁷Clifford Prator, *Language Teaching*, p. 41.

Antonio Isidro, a noted Philippine educator, has this to say about the problem:

Lacking a model for common usage, the Filipino child has to depend upon his textbooks as the sole authority for determining the correctness of expression. In consequence, while Filipinos may write grammatically correct English, their expression is bookish, generally lacking in idioms. With Filipino teachers who leave much to be desired as models for oral English and the lack of an English speaking environment outside of the classroom, the Filipino child who is learning the language is placed at a most severe handicap.⁸

There are many factors which have contributed to the decline in English instruction. Among these are:

1. government regulations decreasing the length of the daily school session,
2. employment of the national language in time formerly devoted to English,
3. decreased supply of texts and supplementary readings,
4. an increased proportion of untrained teachers,
5. larger classes, and
6. uncertainty as to the position of English and loss of teacher morale.⁹

English has become an important medium of communication for the Filipino people. As it is an adopted language to them, it should be spoken in the manner of a native speaker. The norm should be the accepted speech of educated English speakers. But this is not the situation in the country today as may be inferred from the above observations. The spoken English of the Filipinos is very different from the accepted standard of a native speaker of the language. The Filipinos have unknowingly developed their own "standard" of English which, if allowed to flourish, will become quite distinct from the parent language.

⁸Antonio Isidro, "New Directions in our English Instruction," The MST English Quarterly III, Vol. 3-4, Oct. 1953, pp. 2-10.

⁹Clifford Prator, Language Teaching, p. 41.

A breakdown in spoken communication may ensue which in its extreme form may ultimately lead to isolation from the group of nations which use English as the medium. It may lead further into a decline in cultural exchanges and in the prestige of the Philippines as an English speaking nation.

There are, however, promising signs in this particular situation. More and more educators are accepting the idea that English is a second language to the Filipinos; therefore there is need for a re-evaluation of the objectives, methods and techniques for instruction. Remedial programs are now in effect which may lead to improvement of present practices.

Remedial Programs in Effect

The creation of the Philippine Center for Language Studies made possible through a grant from Rockefeller Foundation, has provided the necessary incentive for improving the language situation. Among other things, the personnel are engaged in research on the phonology and grammar of the major Philippine languages. They are then compared with English to determine the points of difficulty for the learner. The Center is also engaged in curriculum revisions to meet the needs of the students in the light of new objectives; it has set up and coordinated speech improvement programs for in-service teachers; it has sent a number of language teachers to the United States to observe and study the latest methods in the teaching of English as a second language and other linguistic techniques. It has served as a public relations bureau to bring to the attention of Filipinos the importance of English as a second language and motivate them to desire improvement.

New trends are resulting from the realistic acceptance of the language problem and the awareness that something can be done about it. Leading universities in the Philippines are organizing, strengthening and consolidating their speech and linguistic programs. Linguistic scholars and students are encouraged to carry on research in the area of language teaching, specifically on Philippine languages. If the present trend continues, the Philippines will reach a new peak in their use of spoken English.

PURPOSE

The aural-oral approach to language teaching with its emphasis on spoken language asserts the need for good models of speech. Nowhere is this need more greatly felt than in the Philippines where there is a dearth of teachers who have mastered English well enough to approximate closely the speech of a native speaker. Many of the teachers who are now in the field have had little or no opportunity to learn the language from one who speaks it as his native tongue. As a result, their dialect patterns were substituted for English patterns resulting in sound substitutions, sound distortions, incorrect rhythm. As they teach, their own errors are perpetuated and added to the students' own errors the type of English learned is that which is unintelligible especially to one who speaks it as his native tongue.

The need for re-education in oral English belongs to the teacher training institutions of the Philippines. If the objective is to improve the English speech of the people, an intensive program of speech improvement should be given, starting with the teacher. With adequate preparation, guided training and considerable practice, the teacher can,

by sheer example of her own impeccable English be a model for her students.

A program of speech improvement would include the following:

1. linguistic analysis of the phonology of the native language of the learner,
2. a comparison with the phonology of the target language,
3. a course of study that is based on the critical sounds revealed in the comparison, and
4. linguistic and speech techniques of teaching a foreign language.

It is hoped that this study will contribute towards a better program of speech improvement in the Philippines, specifically, in relation to the problems of the Iloko speaker.

The purpose of this study is to examine the problems involved in the improvement of the English speech of teachers of a particular language background, specifically dealing with the difficulties of the Iloko speaker in his attempt to master the English language. The results may serve as guides to the teacher of the target language and to the curriculum maker.

PROCEDURE

The first step in analyzing a language is to secure an informant or informants who are native speakers. Then the analyst proceeds to get the information he needs. Data is recorded or transcribed phonetically. Then the observed features are sorted out for distinctive differences and classified into a limited number of classes. These are called the phonemes. The distribution and arrangement of the phonemes are determined and listed and when these are done one is given a picture of the

phonologic system of that language. One can proceed further to the higher planes of linguistic analysis such as morphology, and then to metalinguistics. This study is, however, concerned only with phonologic analysis, and recognizes the fact that it is just one of the phases of foreign language learning.

This study had four informants, all educated native speakers of Iloko. Aside from Iloko, which is their first language, they also speak Tagalog and English as their second languages and Spanish as the third language. They all come from Ilocos Norte, three from Batac and one from Laoag, the capital of the province. The average age for the informants is 56. Iloko is the language they use at home but in their professional, business and part of their social lives they speak Tagalog, or English with the last being favored more. All learned English at the age of seven, partly from American teachers, and the rest of the time from Filipino teachers. Spanish was studied in their college years although they were exposed to it to some extent in their early lives. They all learned Tagalog when they moved to Manila because of occupational demands.

The phonological analysis of the language was made from the tape-recorded Iloko conversation of the three informants. The fourth informant provided the face to face contact with the analyst who also speaks Iloko as her native tongue.

The corpus was transcribed phonetically and then phonemically. An articulatory description of each of the phonemes is given in this study, accompanied with a listing of their distribution and arrangement in utterance position, whether initial, medial or final.

The consonants are described according to point of articulation, articulator, voicedness and tenseness. The vowels are described according to tongue position, tongue height, lip form and relative muscular tension, accompanying the production.

The data was recorded on 7 1/2 ips and when analyzed was played on a slower speed of 3 3/4 ips. In a doubtful and suspicious case with regard to the classification of a sound feature, the fourth informant provided the necessary data needed to verify it.

The mid-western type of American English is the standard that this study has adopted. Charles Hockett's linguistic analysis of middle western American English was used as the basis, and Trager and Smith's analysis was consulted freely. The analyses of Bloomfield and Betty Jane Wallace were useful especially on consonant clusters.

English and Iloko phonologies were compared. An item by item analysis of the phonological differences was made. The contrastive study was used as a predictive device for the sounds that would likely be most difficult for the Iloko speaker in improving or mastering English. The criteria for contrasting the two languages used a three way categorization of differences as suggested by a similar study done by Robert Stockwell on a different Philippine language.¹⁰ It was modified to suit the design of this study.

From the point of view of the Iloko speaker, English has new categories, absent categories, reinterpreted and transferred categories.

¹⁰Robert Stockwell, "A Contrastive Analysis of Tagalog and English," Unpublished research, University of California, 1957, pp. A6-7.

Using these categories as the frame of reference, the similarities and differences on the phonological systems of both languages are sorted out. The new and reinterpreted categories of English are predicted to be difficult for the Ilocano. A detailed listing of the items is made.

To verify the predicted difficulties, 17 Iloko speakers plus the 3 original informants recorded on tape some conversations in English. The corpus covers 10 hours, about 3 hours of prepared scripts and 7 hours without scripts. The prepared scripts were given to the groups a few minutes before recording time and each one was assigned to read a part. Each one had a different part to read. On the 7 hours of unprepared, unrehearsed dialogue, the subjects talked spontaneously about anything. Part of the corpus are proceedings of meetings of two local organizations wherein the subjects took part freely.

The corpus was then analyzed by two groups. Two professional speech correctionists and a speech and language teacher analyzed Group I. This was the prepared script. Five advanced speech correction majors with a grade of "B" or over in their General Phonetics course analyzed Group II, the informal situation. All the analysts spoke middle western American English and used their own speech or the speech of one whom they considered as typical educated middle western American as their standard for judging. They were asked to listen for deviations in production of the English speech of the Ilocano. They were asked to write in phonetic symbol the error that they perceived above the error itself, and also to mark on the script which was provided to them the deviations in intonation, stress and pauses (junctures).

An educated native speaker of middle western American English was requested to read the scripts (a cut of the informal conversation was

made and typed in script form for the analysts and for the reader), and his utterances were transcribed phonemically. Counts were made of the occurrences of each of the English sounds in all utterance positions, initial, medial, final. These were matched with the performance of the Iloko speaker. If there were "x" number of occurrences of a particular sound in a given utterance by the native speaker, the Ilocano was expected to have an equal amount in his speech. The ratio was obtained between the performance of the native speaker and the Iloko speaker.

The sounds were divided into two groups - difficult and easy. The difficult sounds were those that were not in the Iloko phonology and the easy ones were those that were present in Iloko.

A hypothesis was set up to test statistically the validity of the predictions. The hypothesis is: "that there are certain sounds in English that the Iloko speaker will have difficulty mastering. Most of the new sounds of English will comprise the critical areas of learning." Chi square distribution and frequency distribution were used to test the validity of the hypothesis. Then the sounds were ranked according to their percentage of difficulty ranging from least difficult to most difficult in intervals of 20 percent, from 0 - 100. The ranking was done on the predicted items of difficulty only.

A total of 20 subjects were used in this study. They ranged in age from 20-60 with an average age of 43.75. All of them speak Iloko as the home language. They are all multi-lingual, typical of the present professional group of the Philippines. They speak fluent Iloko, Tagalog and English and can carry on a simple conversation in Spanish. All of them learned English at age 7, fourteen learning it from Filipino teachers only and six from Filipino and American teachers. Two of them are

medical doctors, two pharmacists, one dentist and fifteen teachers, five of whom are now administrators. Tagalog was learned by them at about the same time in their lives - in high school and college, and in their professional lives. All of them have been exposed to Spanish at school and at home. They all speak English from 8-10 hours a day in their professions. Socially, their conversation is sprinkled with English, Spanish, Tagalog and Iloko terms shifting easily from one to the other without any detriment to the smooth flow of communication between them. In a gathering of Ilocanos only, the favored language is Iloko with additions of a few items of the other languages because there are no equivalents in the former.

REVIEW OF LITERATURE ON ILOKO

Iloko phonology has been analyzed a number of times by a number of linguists. Eight linguistic analyses were examined by this writer. They were found to be studies of different dialects using different approaches. Only one of them was a study of the northern dialect with which this study is concerned, but with a different point of view. The analyses reviewed were:

1. Swift, Henry - Study of Iloko Language - 1909
2. Vanorbergh, Morice - Notes on Iloko - 1928
3. Lopez, Cecilio - Comparison of Tagalog and Iloko - 1928
4. Bloomfield, Leonard - Outline of Ilocano Syntax - 1942
5. Widdoes, Henry - A Brief Introduction to the Grammar of the Ilocano Language - 1950
6. McKaughan, H. and J. Forster - Ilocano, An Intensive Language Course - 1953

7. Ganuelas, Susana - Comparison of English and Ilocano - 1953
8. Constantino, Ernesto - Ilocano Phonology - 1958.

Swift's study is a morphophonemic analysis of the "accentual patterns" of Iloko. He has reduced the occurrence of "accents" to a number of postulates covering the shifts of stress from one type of affix to another. His description of the segmental phonemes is rather vague, and described in terms of the English orthographic alphabet. They are not therefore accurate descriptions of the nature of the sounds.

Vanorbergh's study is also a morphophonemic analysis of Iloko "accents." Like Swift, he has set up postulates governing the occurrence of stress, tied in with affixes. He lists at random the segmental phonemes and does not mention juncture or pitch.

Lopez' analysis is on the segmental phonemes of Iloko. Using original Indonesian as his frame of reference, he compared the vowels and consonants of Tagalog and Iloko. He did not identify the dialect he studied so one may assume that his statements are general covering Iloko segmental phonemes in toto.

Widdoes' study is principally on stress, although he made attempts to include morphological processes and set up a number of postulates regarding them. His description of the articulation of the segmental phonemes are rather inaccurate, as he makes general statements that "all the consonants of Iloko... excepting words of Spanish origin are pronounced as in English."¹¹

Bloomfield analyzed northern Iloko, Laoag variety, similar to the dialect that is of concern to this study. His main purpose, however, was

¹¹ Henry Widdoes, A Brief Introduction to the Grammar of the Ilocano Language, (Manila: G. Rangel and Sons, 1950) p. 1.

to study the syntax of the language, so no descriptions were given of the articulation of the sounds. He did not indicate the distribution and arrangement of the phonemes. His analysis, although not exhaustive, provides a convenient frame of reference for comparison with the results of the writer's analysis.

McKaughan and Forster's joint thesis is comprehensive especially on clustering habits of consonants and on syllabication. It is lacking in treatment of pitch, and juncture is not included. It is a study of La Union variety of Iloko and considered from the viewpoint of a native English speaker desiring to learn it. This view is opposite to that of the present dissertation.

Ganuelas' analysis is an attempt at linguistic analysis, but she uses conventional orthography rather than phonemic descriptions and symbolizations. It is concerned with the segmentals of Iloko, La Union variety.

Constantino's study is an exhaustive analysis of the phonology of the Nueva Ecija variety of Iloko. His corpus is distinct from the others in that it is an isolated dialect, surrounded on all sides by Tagalog. Many of the features of the neighboring language have crept in, influencing the sound system. Therefore his statement of the features of Iloko can be applied only to that specific area, which is isolated from the rest of the Iloko speaking people, who live on a narrow strip of land running along the west coast of northern Luzon, from San Fernando, La Union, to Bangui, Ilocos Norte. (See linguistic map, p. ii)

Results of the various analyses of Iloko yielded interesting observations. Despite the divergent dialects, the observations appear to be

rather similar in nature. The greatest degree of difference was on the number of vowels, which varied from three to five. Four of the analysts, including the writer, identified 4 vowels, one identified 3, and four identified 5. One of the 5-vowel systems had /e/ and /ə/ in free variation; three had /o/ and /u/, /a/ and /e/ also in free variation. One of the 4-vowel systems had /e/ and /ə/, and /i/ and /e/, as free variants.

With regard to the consonants, the differences in the number of phonemes depended upon the decision to include or exclude loan-words. If they were considered as integral parts of the phonology, the number of phonemes generally increased. A specific phoneme that presented different interpretations was the glottal stop /ʔ/. It was impossible to decide whether it should be considered as a separate phoneme or an allophone of /h/, whose presence in the phonologic structure was also questioned. Six of the studies recognized /ʔ/ as a separate phoneme; one considered it as an allophone of /h/. Two analysts ignored the sound.

Regarding the phoneme /h/, six of the analysts were of the opinion that it did occur, one did not recognize it, and two made no mention of it.

Six of the studies included loans in their phonemic analyses without reservations, two classified them as a special group, and one made no mention of loans at all.

In regard to the suprasegmental phonemes, there is insufficient data for general conclusions. More research is needed in this area to verify, nullify, or add to what has been identified.

Looking at the overall results of the comparison, one can make these general conclusions regarding the nature of Iloko phonology:

1. The phonetic characteristics of Iloko show basic uniformity with minor dialect variation,
2. The consonants show more stability in their phonetic features; the vowels exhibit varying dimensions from the point of view of tongue height and tongue position,
3. The patterns of distribution and arrangement of the phonemes are basically similar,
4. The consideration of loan words influences the basic structure of Iloko phonology.

Review of this literature has indicated to the writer that no one has yet designed a study similar to the current one. It is hoped that this project will be a contribution to language pedagogy.

DEFINITION OF TERMS

The following terms have been used and the definitions may be applied only within the context of this dissertation.

Allophone - any sound or subclass of sounds which is in complementary distribution with one another so that the two together constitute a single phoneme.

Corpus - body of material from which data was obtained

Difficult sound - any sound that is not found in the sound system of the learner but found in the language being learned

Easy sound - any sound that is found in the sound system of the learner that may also be found in the language being learned, and possessing similar phonetic characteristics.

Error - any sound that is not produced correctly so that it calls attention to itself and interferes with the smooth process of communication

Ilocano - an Iloko speaking person

Iloko - language spoken by an Ilocano

Informant - native speaker of a language under study from which the analyst obtains his corpus

Morphophonemics - a study of the phonemic structure or shapes of morphemes, and of variations in that structure as constituents of morphemes

Morpheme - the smallest meaningful unit in the expression system which can be correlated directly with any part of the content system.

Phoneme - a class of phonetically similar sounds, contrasting and mutually exclusive with all similar classes in the language under consideration

Phonemic analysis - the examination of the phonetic material with a view to sorting out the distinctive differences between the sounds and organizing them into a limited number of classes

Phonetics - concerns itself with the techniques of analysis, description and classification of speech sounds; articulatory phonetics deals with the study of sounds useable in speech in terms of the mechanisms of their production by the human vocal apparatus; acoustic phonetics deals with the study of linguistically significant features or speech sounds from an acoustic point of view.

Phonology - the study of sounds of a given language

Phonological system - the sound system and its network of differences

Segmentals - the vowels and consonants of a given language

Standard speech - the accepted speech of an educated native speaker of a given language

Suprasegmentals - the phonemes of pitch, stress and juncture (pauses) of a given language

Target language - the foreign language which is the object of study by a non-native speaker in order to communicate proficiently in it.

CHAPTER II

PHONEMIC ANALYSIS OF ILOKO

Background of the Language

Among the nine major groups of languages in the Philippines, Iloko ranks as the third largest. It is spoken by a group of people whose original home is a narrow strip of land running along the west coast of northern Luzon, from San Fernando, La Union, to Bangui, Ilocos Norte. (See map illustration, p. ii) It is a hilly country supporting a population greater to the square mile than that of any other region in the Philippines except Manila and its immediate environs. To the west is the China Sea, and east of it, serving as a natural boundary is part of the Cordillera mountain range.

Iloko is a Malayo-Polynesian language. It is considered to be the leading and most highly developed member of the northern group of Philippine languages, and the most distinctive of those found among Philippine Christian groups.¹² A study of its lexicon show distinct traces of cultural influences from India, Arabia, China, Spain and the United States. Generally speaking, Iloko is uniform all throughout the region, although there are a number of local dialect variations.

This chapter will present an analysis of Iloko phonology. The segmental and suprasegmental phonemes will be listed and described. Their features of distribution and arrangement will also be given, and the syllabication and rhythm patterns will be indicated.

¹²Leopoldo Yabes, Survey of Iloko Literature, (Manila: Oriental Printing, 1936) p. 4.

VOCALIDS

PHONETIC CHART

	Front		F-Central		Central		B-Central		Back	
	U	R	U	R	U	R	U	R	U	R
High	i i:									u u:
Lower High	I I:									U U:
Higher Mid	ee:							o		
Mid			ə							
Lower Mid										
Higher Low										
Low					a a:					

VOWELS PHONEMIC CHART

	Front	Back
H	i	u
L	e	a

Iloko Phonology

Northern Iloko, the dialect spoken in Ilocos Norte, particularly within the areas bordered from the north by Laoag and to the south by Batac consists of the following phonemes:

26 segmentals:

4 vowels - / i e a u /

6 diphthongs - / iy iw ay aw uy uw /

16 consonants - / p t k b d g ʔ s h m n ŋ r y w /

10 suprasegmentals:

3 degrees of stress - primary /'/, secondary /ˈ/, tertiary /ˊ/

3 relative levels of pitch - high /³/, mid /²/, low /¹/

3 terminal junctures - ///, ///₁, /#/

1 internal juncture - /+/

Vowel System of Iloko

The criteria used in this study for vowel classification are:

1. height of tongue
2. position of the tongue
3. form of the lips
4. relative muscular tension accompanying production of each.

Iloko has a 4-vowel system. They are:

/i/ /u/

/e/ /a/

The allophones of each of the phonemes are the following:

/i/ [i:] [i] [I]

/e/ [e:] [e] [ə]

/a/ [a:] [a]

/u/ [u:] [u] [U] [U:] [o]

Description*

[i:]	high front, relatively tense, unrounded, longer
[i]	high front, relatively tense, unrounded, long
[I]	lower high front, lax, unrounded, short
[e:]	mid front, lax, unrounded, longer
[e]	mid front, lax, unrounded, long
[ə]	mid central, unrounded, lax
[a:]	low central, lax, unrounded, longer
[a]	low central, lax, unrounded, long
[u:]	high back, relatively tense, rounded, longer
[u]	high back, relatively tense, rounded, long
[U]	lower high back, rounded, lax, short,
[U:]	lower high back, rounded, lax, longer
[o]	mid back, relatively tense, rounded

Statement of Distribution of the Vowels

/i/ There are no distributional limitations. This phoneme can occur in any utterance position, in preconsonantal, post consonantal, inter consonantal, before or after a consonant cluster.

The distributional limitations of the allophones are as follows:

[i:]	always in utterance initial, stressed
	[i:tIk] [i:pIt]
[i]	always in utterance initial, unstressed or weakly stressed
	[ilI:wen][itU1U:d]
[I]	occurs elsewhere
[I:]	when it carries the primary stress: [pI:dUt]

*The vowel carrying a primary stress is of longer duration phonetically than those that carry other kinds of stresses.

/e/ There are distributional limitations. In utterance medial position, it occurs only in Laoag Iloko or in precise, careful and formal speech by the Batac speaker.

In utterance initial and utterance final, it occurs only in morphemes of foreign origin.

The distributional limitations of the allophones are as follows:

- [e:] utterance initial, primary stress
- [e] utterance initial or final, presence or absence of stress except primary, also found in medial position in Laoag Iloko
- [ə] occurs in utterance medial position, only in Batac Iloko.

/a/ There are no distributional limitations of this phoneme. It can occur in any utterance position, pre-consonantal, post-consonantal, inter-consonantal, before or after a consonant cluster.

- [a:] primary stress
- [a] elsewhere

/u/ There are no distributional limitations of this phoneme. It can occur in any utterance position, pre-consonantal, post-consonantal, inter-consonantal, before or after a consonant cluster.

- [u:] occurs only in utterance initial, primary stress [u:lU]
- [u] occurs in utterance initial, all other stresses [ukI:s]
- [U] occurs elsewhere, also is primarily stressed [U:] [lU:tU]
- [o] occurs in non-predictable positions in loan words

[bote] [bapor]

Samples in Distribution - Vowels (Disyllabic Items)

/i/	i:pUs ina:	tI:na i:bIt	rI:rI bUsI:
/e/	e:kstra elé:ktor	bU:təŋ ré:ppet	bé:rde ká:tre

/a/	á:lad aya:t	ma:nan baya:d	da'ta: bU:rda
/u/	ú:rnUs ubrá:	bUnU:t lU:bUn	bU':dU pItU':

Vowel - Semivowel Sequences

/y/ and /w/ are non-syllabic variants of /i/ and /u/ when they occur after a vowel.

/i-w/	/iwa'ras/	/kiwa'ren/
/a-w/	/a'wid/	/babawi/
/a-y/	/aya'b/	/bayad/
/u-y/	/úyus/	/puyut/
/i-y/	/iyubun/	

Diphthongs

A diphthong is the sequence of a vowel and a semivowel. Iloko has the following diphthongs:

/iy/	/iw/
/ay/	/aw/
/uy/	/uw/

Distribution

1. A single syllable

/iw/ a. Does not occur in utterance initial

b. Very common in utterance final

/da'niw paksiw/

c. Occurs in utterance medial but with certain limitations

/riwriw/ - reduplicated

DIPHTHONGS

PHONETIC CHART

	Front		Central		Back	
High	i ^h	i ^l			u ^h	u ^l
	I ^h	I ^l			U ^h	U ^l
Low						
			a ^h	a ^l		

DIPHTHONGS

PHONETIC CHART

Front		Central		Back	
iy	iw	ay	aw	uy	uw

/li'wliwa kiwki'wan/ - the reduplication does not constitute a whole syllable but the semivowel contributes the first element of the third syllable.

/aw/

- a. Occurs in utterance initial position. It is reduplicated in the succeeding syllables but the reduplication does not constitute a whole syllable, each phoneme is a member of a different syllable.

/aw'awat aw'awid aw'awis/

- b. Very common in utterance final position:

/ald'aw pur'aw k'agaw/

- c. It is reduplicated in utterance medial position

/lawl'aw kawk'aw bawb'aw/

- d. It also occurs in utterance medial position when not reduplicated but only when followed by /ʔ/ and /y/

/ipaw'it kadaw'yan/

/uw/

- a. Occurs only in isolated instances in so far as it can be ascertained - in careful, precise and deliberate pronunciation of:

/duw'wa uwwak/

/ay/

- a. Has distributional limitations in utterance initial position:

1. It occurs only in pre-consonantal position as in the following:

/w/ - /aywan' / /h/ - /ayna' /

2. It is reduplicated in the succeeding syllable but the reduplication does not constitute a whole syllable. Each phoneme is a member of a different syllable.

/ayay'ug ayay'at ayay'am/

- b. Its distribution is common elsewhere

/balay' / /pagay' / /baywen' /

/bay'am' / /nayparabay' /

/nalavnav' ralavlav' wacavwaw' / /mavvalis kallavsa may'sa /

/uy/

- a. In utterance initial, it occurs only when followed by its reduplication but no longer occurring as a diphthong, but as members of two different syllables.

/uyuyusən uyuyunən/

- b. Distribution is common in utterance final position

/itúluy ibú'ruy apúy nalupúy/

- c. In utterance medial position, it is always reduplicated but no longer occurring as a diphthong, instead they become separate entities becoming members of different syllables.

/panuynuyan aguyúyaw agúyuya'uy/

- d. If not followed by its reduplicated form in utterance medial position, it occurs in prevocalic position followed by /ʔ/

/gúy'aban agduy'us/

/iy/

- a. In utterance initial, it occurs only before /y/

/iyyeg iyyawid iyyúlug/

- b. It does not occur in utterance medial and final positions.

Phonetic Description of Iloko Phonemes (Consonants)

Stops.

- /p/ voiceless stop, unaspirated, unreleased in final position, relatively tense
- /b/ voiced stop, bilabial, unaspirated, unreleased in final position, lax
- /t/ voiceless stop, alveolar, unaspirated, unreleased in final position, relatively tense
- /d/ voiced stop, alveolar, unaspirated, unreleased in final position, lax
- /k/ voiceless stop, velar, unaspirated, unreleased in final position, relatively tense

CONTOLDS

PHONETIC CHART

Pt. of Art. Manner		Bi-labial		Al-veolar		Palatal		Medio-Velar		Post-Velar		Glottal	
		Rlsd	Unrl	Rlsd	Unrl	Rlsd	Unrl	Rlsd	Unrl	Rlsd	Unrl	Rlse	Unrl
Stops	Vls	p	p	t	t			k	k				ʔ
	Vcd	b	b	d	d			g	g				
Spirants	Rill			s									
	Slit												h
Nasals		m	m	n	n			ŋ	ŋ				
Laterals				l									
Trills				r	r _r								
Glides						y				w			

PHONEMIC CHART

Artic.	Labial		Apical		Dorsal		Faucal	
Stops	p	b	t	d	k	g	ʔ	
Spirants			s				h	
Nasals	m		n		ŋ			
Glides	w		l	r	y			

/g/ voiced stop, velar, unaspirated, unreleased in final position, lax

/ʔ/ voiceless stop, glottal, tense

Fricatives:

/s/ voiceless fricative, alveolar, tense

/h/ voiceless fricative, glottal, tense

Nasals:

/m/ voiced nasal, bilabial, lax

/n/ voiced nasal, alveolar, lax

/ŋ/ voiced nasal, velar, lax

Lateral:

/l/ voiced lateral, alveolar, lax

Trill:

/r/ voiced trill, alveolar, lax

Semivowels:

Glides:

/y/ voiced glide, palatal - with front vowel timbre, tense

/w/ voiced glide, labio-velar with back vowel timbre, lax

Allophones:

ˀ (unreleased)

rˀ (multi-tap)

Stops:

/p/ [p] [pˀ]

/b/ [b] [bˀ]

/t/ [t] [tˀ]

/d/ [d] [dˀ]

/k/ [k] [kˀ]

/g/ [g] [gˀ]

/ʔ/ [ʔ]

Fricatives:

/s/ [s]

/h/ [h]

Nasals:

/m/ [m] [mʰ]

/n/ [n] [nʰ]

/ŋ/ [ŋ] [ŋʰ]

Lateral:

/l/ [l]

Trill:

/r/ [r] [rʰ]

Glides:

/y/ [y]

/w/ [w]

Statement of Distribution - Consonants
(Native and Loan Morphemes)

	Initial		Final
	Pre-vocalic	Pre-Cons.	
Stops:			
/p/	/papé1/	/pyánu/	/atép/
/b/	/bádu/	/byáhe/	/kalúb/
/t/	/túbu/	/tyán/	/uttút/
/d/	/dára/	/dyámante/	/bálud/
/k/	/káwar/	/kwáta/	/arák/
/g/	/gálut/	/gwápu/	/birkug/
/ʔ/	(predictable in prevocalic position, none in final)		

	Initial		Final
	Pre-vocalic	Pre-Cons.	
Fricatives:			
/s/	/sa ^ʔ lut/	/swit ^ʰ ik/	/kwé ^ʰ ntas/
/h/	/hé ^ʰ pe/	/hwé ^ʰ s/	
Nasals:			
/m/	/ma ^ʰ ntéd/	/mwe ^ʰ bles/	/gayyém/
/n/	/nalpás/	/nwa ^ʰ ŋ/	/dálan/
/ŋ/	/ŋarú ^ʰ d/		/si ^ʰ ŋsín/
Lateral:			
/l/	/li ^ʰ sta/	/lwa ^ʰ s/	/ba ^ʰ sul/
Trill:			
/r/	/ri ^ʰ gat/	/rwa ^ʰ ŋan/	/ka ^ʰ ryar/
Glides:			
/y/	/ya ^ʰ man/		/bu ^ʰ rnay/
/w/	/wa ^ʰ lu/		/a ^ʰ braw/

Consonants
(Native and Loan Morphemes)

	Medial		
	Intervocalic	Pre-Cons.	Post-Cons.
Stops:			
/p/	/ka ^ʰ pun/	/ka ^ʰ psút/	/a ^ʰ rpa/
/b/	/a ^ʰ bút/	/a ^ʰ blát/	/pa ^ʰ rbu/
/t/	/bi ^ʰ tu/	/bi ^ʰ twin/	/ma ^ʰ ntéd/
/d/	/a ^ʰ dal/	/bi ^ʰ ddut/	/pa ^ʰ rda/
/k/	/a ^ʰ kas/	/pa ^ʰ ksiw/	/pa ^ʰ skén/
/g/	/a ^ʰ gum/	/a ^ʰ gpa/	/pu ^ʰ rga/
/ʔ/	(predictable intervocally and before a strong vowel)		
	/i ^ʰ lug/		

Fricatives:

/s/	/tisa/	/bastú/	/búlsek/
/h/	/aláhas/		

Nasals:

/m/	/ama/	/timba/	/pasma/
/n/	/danaw/	/linteg/	/burnay/
/ŋ/	/buna/	/laŋtu/	/birŋas/

Lateral:

/l/	/ulu/	/kalseb/	/kasla/
-----	-------	----------	---------

Trill:

/r/	/rurud/	/surser/	/aprús/
-----	---------	----------	---------

Glides:

/y/	/ayat/	/baybay/	/karyar/
/w/	/tawar/	/kawkaw/	/kadwa/

Minimal Contrasts For Suspicious Pairs

/p/ - /b/	/patan/	/batan/
	/apúy/	/abuy/
	/ap'ap/	/ab'ab/
/t/ - /d/	/turug/	/durug/
	/pata/	/pada/
	/ikit/	/igid/
/k/ - /g/	/kasta/	/gasta/
	/akas/	/agas/
	/apúk/	/apug/
/h/ - /ʔ/	/aláhas/	/ba'ak/

Statement of Distribution - Consonants
Description of Allophones

I. Initial:

The following may occur without limitation in utterance initial:

/p t k b d g ʔ s l m n ŋ r w/

The following may occur in utterance initial with limitations:

/y/ only before /a/ as in /yáman/

If there is a sequence /i-y/ in utterance initial position in rapid speech, the /i/ drops out: /iyúlug/ becomes /yúlug/

/h/ occurs only in loan words: /hwés hépe/

The stops /p t k/ are not aspirated in utterance initial; they are relatively tense.

/b d g/ in utterance initial are voiced slightly, lax.

/s/ is voiceless and tense in utterance initial.

/m n ŋ/ and /l/ are articulated rather weakly

/r/ has a double tap trill

/w/ and /y/ are voiced.

II. Medial:

In utterance medial position, there are no distributional limitations in any of the consonants except /h/. Each may occur individually, in sequence with itself, or intervocally. Each may also occur in sequence with a different consonant.

/ʔ/ when it occurs intervocally drops off in rapid speech thereby exhibiting some sort of vowel sequence, but the length is kept long enough to indicate the existence of two syllables.

/r/ is a double tap trill intervocally, but multi-tap elsewhere.

/h/ occurs only in intervocalic position and never in sequence with an identical or different consonant.

/p t k b d g ' s m n ŋ l r/ may occur intervocally, or in sequence with an identical or different consonant.

/'/ may occur intervocally or in sequence with itself.

The semivowels /w/ and /y/ may occur in utterance medial position in sequence with another consonant, intervocally, or in cluster with a vowel becoming its second member.

III. Final:

The following consonants may occur in utterance final, post-vocalic:

/p t k b d g s l m n ŋ r w y/

Consonant clusters in utterance final position can not occur.

The voiced and voiceless stops in utterance final position are unreleased. This is also true with the nasals.

/w/ and /y/ in utterance final position occurs as the second member of a vowel. It is non-syllabic and the cluster formed is phonemically known as diphthong.

Consonant Clusters - Consonants and Semi-vowels

I. Consonant Clusters In A Single Morpheme:

a. 2 consonants in sequence:

1. Initial:

a. C₁C₂ (2 different consonants in sequence) There are distributional limitations:

(1) Morphemes of Spanish origin:

(a) When C₂ is /r/, the possible C₁s are:

/p t k b d g /
/pré'sidente trabáhu kristál brúha dráma
grádu/

(b) When C₂ is /l/, the possible C₁s are:

/p k b g /
/plánu kláse glúrya blúsa/

(c) When C₂ is /s/, the possible C₁ is /t/

/tsaléku tsinélas tsámpyun/

(2) Mixed items: (native and foreign)

(a) When C_2 is /y/ the possible C_1 s are:

/p b t d n s r /
 /byag tya pyek dyáblu nyug syam rywaw/

(b) When C_2 is /w/ the possible C_1 s are:

/p b t d k g s h m n l r /
 /bwáya pwertu twálya dwa kwéntas gwardya swítik/
 /hwes mwébles nwan lwa rwanan/

(3) All C_s can be C_1 s but not all can be C_2 s. All except those listed above cannot be clustered in initial position.

2. Medial:

a. C_1C_1 (2 identical consonants in sequence) No distributional limitations, except /h/ which does not occur in cluster or in sequence in any utterance position.b. C_1C_2 . All possible acceptable combinations can occur, except /h/ in cluster with another.

c. In items of native origin, clusters of more than 2 consonants, identical or different cannot occur.

d. Clusters of more than 2 consonants are possible only in items of foreign origin:

(1) $C_1C_2C_3$: /implyádu méstra/(2) $C_1C_1C_3C_4$: /instráksyun ekspres/

3. There are no consonant clusters in utterance final position. /w/ and /y/ may occur in postvocalic position.

Syllable Structure in Iloko

The distribution and arrangement of the segmental features of Iloko were described, using the syllable as the frame of reference.

Many linguists and acoustic phoneticians have defined and described the "syllable." All are acceptable but Haugen's definition seems to be the most illuminating. A syllable is described as "The smallest unit of recurrent phonemic sequences. Its internal structure can be defined

in terms of phonemes that make it up and whose patterns are constantly recurring."¹³

A vowel, a consonant, and/or a semivowel constitute the basic units of an Iloko syllable. The vowel is the nucleus of the syllable, and it is here where the peak of sonority is concentrated. All the Iloko vowels are syllabic. The length of articulation of a phoneme is the definitive factor whether it is a member of a particular syllable or not.

Northern Iloko indicates the following patterns:

V	/u ras/
CV	/da kes/
VC	/al daw/
CVC	/sip ŋet/

The minimum unit in a syllable is one phoneme. This is always a vowel.

The other syllable types in Iloko are those that occur in morphemes of foreign origin:

VCC	/eks tra/
CCV	/tem pla/
CCVC	/eks pres/

Syllable patterns of the C, SV, V type are found in native and borrowed morphemes:

CSVC	/swel du/	CSV	/swa paŋ/
CSV	/dway ya/	SVC	/as waŋ/
CCSV	/in dus trya/	SVS	/way way/
		CVS	/si law/
SV	/wa ig/		

¹³Einar Haugen, "Syllable in Linguistic Description," for Roman Jakobson-Essays, (The Hague: Mouton and Co., 1956) p. 214

Stress Patterns of Iloko

In a given utterance, one syllable always seems to be more prominent than the others. The prominences are in varying degrees: a particular syllable may seem to be very loud, a contiguous one not as loud, still another, with hardly any degree of loudness at all. Such varying degrees of prominence are the stress features of the language. G. L. Trager defines "stress" as the degree of loudness;¹⁴ Hockett defines it as relative loudness or prominence of a syllable.¹⁵

A morpheme in isolation may exhibit all three of the relative degrees of stress, or it may exhibit a sequence of primary and secondary, or a primary and weak. There is always a primary stress somewhere in the utterance.

Northern Iloko has three relative degrees:

most prominent	/ˈ/	primary
prominent	/ˊ/	secondary
least prominent	/˘/ ¹⁶	weak or absent

The primary stress is the most prominent. It represents the maximum in normal loudness. The secondary stress is not as prominent as the first but is a degree louder than the third. The weak stress or tertiary indicates an absence of prominence. It contrasts with the two others in that it represents the minimum in normal loudness. The stresses are carried by the vowels. The location of stress is important in Iloko.

¹⁴George Trager, Phonetics: Glossary and Tables, Studies In Linguistics, (Buffalo: University of Buffalo, 1958) p. 10.

¹⁵Charles Hockett, A Course in Modern Linguistics (New York: Macmillan Co., 1958) p. 47.

¹⁶Notation where needed: otherwise will be omitted.

It indicates whether two identical morphemes have different lexical meanings. This is illustrated in the following:

/dáyá/	/dayá/	/túgút/	/tugút/
(east)	(feast)	(bring)	(footprint)

The distribution of Iloko stress is such that one may likely find a weak /ˈ/ and a /primary ˈ/ occurring in sequence in a given utterance. Or one may find a sequence of weak and primary, or secondary and primary or the three degrees occurring together in sequence. No two primary syllables nor two secondary syllables may occur in sequence. But the weak stress may occur in sequence with itself. No secondary and tertiary stress may occur in sequence without at least one primary stress. Monosyllabic morphemes may carry a primary stress only, while disyllabic morphemes may have a secondary and/or tertiary stress with the primary. In longer utterances, there may be as many secondary-tertiary occurrences as there are syllables as long as there is a syllable with a primary stress within it. The contrasts can be seen in the following:

/na+panda+a+dágus/	dyay+dagùs+dá/	(They went immediately to their temporary home)
/adda+dayà+idyay/	dáyá/	(There's a feast in the east)

The stress features are unpredictable in their occurrence. If a monosyllabic utterance contains a primary stress, the feature may shift into another syllable when it becomes a part of a larger utterance. For example: /nag+partída/ti+báka/itáy+bigát/ (They slaughtered a cow this morning).

There is a sentence stress in Iloko. It is the most prominent syllable in a given utterance but its occurrence is predictable in that it usually falls on the final syllable of an utterance. To illustrate:

/ˈ/	/agtalaw+dá/nu+malém/	(They will leave this afternoon)
-----	-----------------------	----------------------------------

At times the primary stress and the sentence stress may occur in the

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Pitch Patterns of Iloko

Learning a foreign language involves a mastery of the total pattern of the sound system "...understanding the stream of speech, hearing the distinctive sound features, approximating their production..."¹⁷ The total pattern includes the suprasegmentals and pitch is one of its features.

The pitch features of a language are not absolute in nature. Rather, they are relative degrees located on "groups of syllables determined by their height, relative to one another."¹⁸

Northern Iloko has three relative levels of pitch. They are - high /³/, mid /²/, low /¹/. Together with the terminal junctures, the pitch levels form the intonational contours of the language. Contrasts can be seen in the following:

- | | | | |
|----|---|-------------|-----------------------------|
| 1. | ² napan+ ^{dan} ³ // | (question) | Have they gone? |
| 2. | ² na ³ pan+ ² dan ¹ // | (question) | Have they gone? |
| 3. | ² napan+ ^{dan} ¹ // | (statement) | They have gone. |
| 4. | ² wen ² # | | Yes. |
| 5. | ² wen ¹ # | | Yes. |
| 6. | ² napanan+yu / ² di ³ kalman ¹ // | | Where did you go yesterday? |
| 7. | ² napanan+yu / ² dikalman ¹ # | | Where you went yesterday. |

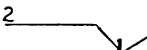
Sentence (1) is a non-emotional query. Pitch starts at level /²/ and glides into level /³/. Sentence (2) is also a query but it contrasts with level /¹/ in the sense that the pattern would be used by a person with authority talking down to a subordinate or it implies a feeling of

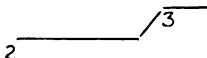
¹⁷Charles C. Fries, Teaching and Learning English as a Foreign Language, (Ann Arbor: Univ. of Michigan, 1945) p. 3.

¹⁸Kenneth L. Pike, The Intonation of American English, (Ann Arbor: Univ. of Michigan Publications in Linguistics I, 1945) p. 24.

detachment. The speaker does not really care whether they have gone or not (the people implied in the question). Sentence (3) is a statement of the normal type - non-emotional matter-of-fact attitude. Sentence (6) is an expansion of sentence (2) and conveys the same meaning, while sentence (7) conveys the same feeling as sentence (5). Sentences (4) and (5) suggest a new pattern; (4) implies a feeling of doubt or uncertainty or respect when replying to a question of an older person or one with authority. (5) implies finality, sureness, confidence.

A non-emotional matter-of-fact utterance normally starts on pitch level /²/ sliding to pitch level /¹/ then slightly rising on the last syllable towards pitch level /²/ but not quite reaching it. This is due to the sentence stress located on the last syllable of the utterance.

The graphic representation is: 

This pattern is descriptive of non-emotional statements, requests, polite commands, Another pattern is: 

This is the most common pattern for questions, responses may either be monosyllabic or multisyllabic utterances.

Different situations may present different contrasts. The state of being of the speakers, the circumstances around them, and even the relationships between the speakers may influence the intonational patterns. The two mentioned above are, however, representative of the most common basic patterns of the language.

Juncture

In connected discourse, one can hear distinct pauses between the words. This is oftentimes represented by the spaces between a written or printed material. When one refers to these pauses in terms of phonemic

entities they are called the "junctures" of the language. Their characteristic feature is time duration.

Northern Iloko exhibits three kinds of terminal junctures. They will be represented by the following symbols: /, //, # .

/ is usually short, and in terms of time it is the minimum length of time that a given phoneme may be produced. There is no distinct rise or fall in pitch and indicates that the utterance is still to be completed. This is illustrated in the following:

gem / dyak+la/ impagarup

// is distinctly longer in duration. The pause is twice as long as /. There is a characteristic rise, fall or level pitch. The rise and fall of the pitch may signal the end point of an utterance but there are indications that the speaker has more things to say. The level pitch may indicate the hesitation of the speaker when he is thinking of what to say next, or when he is enumerating in slow, deliberative speech.

indicates the termination of an utterance. There is a note of finality to it and also a distinct fall in pitch, though no gradual fading away of articulation.

Aside from the terminal junctures that Iloko possesses, it also has another characteristic feature which may be phonemically identified as internal juncture and symbolized /+/. In order to describe this entity, it is necessary to borrow from Hockett's terminology. He calls this phenomena "sharp transition" and defines it as "a way of getting from one vowel or consonant to the next."¹⁹ It is contrasted with what he

¹⁹Charles Hockett, A Course in Modern Linguistics, (New York: Macmillan Co., 1958) p. 54.

calls "muddy transition", that which is ordinarily called "syllable transition." This kind of juncture does not occur at the end of either sentence or phrase but may occur between morphemes. In terms of timing, the prolongation of sound is a half unit, the unit being a period of time about equal to the length of one average sound.²⁰

Northern Iloko has this type of juncture. It can be perceived in the following isolated examples; shown in contrast:

/mak`anigíd/	/makín+igíd/
/agì'ikan/	/agá+ípun/
/agpúkaw/	/agpúk+káw/
/katúray/	/két+úray/

In connected discourse:

napan/dan # apay+ñamin+aya/pepita/ña+dikaymaisiban/ti+umay
sumarunkar+dituy+bayamban //

The presence of /+ / in connected discourse or in isolated items will indicate the presence of two contiguous primary stresses.

Rhythm

The rhythm of Iloko is syllable timed. This means that the rate of speed in the pronunciation of a given utterance will depend upon the number of syllables that make up the utterance.

The syllable timing of northern Iloko is influenced by stress but there is never a clustering of non-stressed syllables in order to get to the next stressed syllable. It takes just about as much time to pronounce one syllable that is non-stressed as it does to do a syllable with primary stress.

²⁰Archibald Hill, Introduction to Linguistic Structures, (New York: Harcourt Brace and Co., 1958) p. 25.

This chapter has presented a comprehensive listing of the features of Iloko phonology. The next chapter will be a presentation of the aspects of middle-western American English that are pertinent to the improvement of the spoken English of an Ilocano.

CHAPTER III

MID-WESTERN AMERICAN ENGLISH

Introduction

A program of speech-improvement for a non-native speaker of a language should include an understanding of, and familiarity with, the phonologic pattern of the target language. The pattern should contain a stock of the phonologic constituents and a set of arrangements in which they occur in one or more utterances.

The target language in this study is middle-western American English. The standard is that which is spoken by educated people from the middle west area of the United States. This section is, therefore, a description of the phonology of this variety of American English. It will be used as the model of English speech for an educated non-native speaker with an Iloko language background.

An exhaustive listing of all the possible variants of American English is not being attempted here. Only those items which are pertinent to its pedagogical implications will be listed. It is the belief of the writer that this would be more practical, more profitable, and more meaningful for the learner. The Iloko speaker's primary purpose as assumed in this study is for mutual intelligibility between the native speaker of English and himself, and to approximate closely the standard speech of the model.

A number of reliable linguistic analyses on middle-western American are available. This project, however, used as its models only those which could be definitely ascertained as the type from the midwest. The

analyses of Hockett and Bloomfield constitute for the most part the data listed here. Trager and Smith's analysis was consulted.

Some linguists agree that the distribution and arrangement of phonemes of American English, are more or less similar and stable, regardless of the dialect. Any variations that exist are for the most part non-distinctive. The findings of Bloomfield, Hockett, Trager and Smith, Hill and Wallace on the clustering habits of the phonemes of American English were the sources for the data listed here.

SEGMENTAL PHONEMES

There are thirty-eight segmental phonemes of middle-western American English. Twenty-four of these are consonants; fourteen are vowels. The vowels are further subdivided into simple and complex ones.²¹

The vowel phonemes are:

Simple: / i e æ ə a u ɔ /

Complex: / iy ey ay oy uw ow aw /

The consonant phonemes are:

/ p t k b d g c j f θ s ʃ v ð z ʒ m
n ŋ l r w y h /

Each of the above phonemes will be described phonetically in the following pages. The vowels will be explained in terms of tongue height, tongue position, lip form and relative muscular tension. The consonants will be classified in terms of manner of articulation, point of articulation, voicing and relative muscular tension.

²¹Charles Hockett, A Course in Modern Linguistics, (New York: Macmillan Co., 1958) p. 60.

Vowels

A vowel is defined as a "speech sound made without closure or constriction at the main point of articulation."²² The following are articulatory descriptions of the vowels of middle-western American English:

Simple	Phoneme	Description	Example
	/i/	high front, unrounded, lax	bit, beer
	/e/	mid front, unrounded, lax	yeah, bet, bear
	/æ/	low front, unrounded, lax	bat, cad, baa
	/ə/	mid central, unrounded, lax	the, but, burr
	/a/	low central, unrounded, lax	bah, bar
	/u/	high back, rounded, lax	book, boor
	/ɔ/	low back, slightly rounded, lax	hall, bore
Complex:	/iy/	high front, unrounded tense, with glide upwards and forward	bee, beat
	/ey/	mid front, unrounded lax, with glide upwards and forward	bay, bait
	/ay/	low central, unrounded lax, with glide upwards and forward	by, bite
	/oy/	mid back, rounded, lax, with glide upwards and forward	boy, coin
	/uw/	high back, rounded tense, glide upward and backward	boo, boot
	/ow/	mid back, rounded, lax, with glide upward and backward	though, boat
	/aw/	low central, unrounded lax, with glide upward and backward	thou, howl

The allophones of the vowels exhibit quality ranges with regards to length and nasalization:

²²George L. Trager, Phonetics (Buffalo: Univ. of Buffalo, 1958) p. 10.

VOCOIDS

PHONETIC CHART

Pt. of Manner Art.	Front		Central		Back	
	Unr.	R	Unr.	R	Unr.	R
High	i; i. i ^u i i					u: u. u ^u u u
Low High	I					U
High Mid	e; e. e ^u e e		ʌ			
Mid			ə; ə. ə ^u ə ə			o
Low Mid						
High Low						ɔ; ɔ. ɔ ^u ɔ
Low	æ; æ. æ ^u æ			a; a. a ^u a a		

VOWELS

PHONEMIC CHART

Art.	Front	Central	Back
High	i		u
Mid	e		ə
Low	æ	a	ɔ

DIPHTHONGS

PHONEMIC CHART

Art.	Front	Central	Back
High	iy		uw
Mid	ey		oy ow
Low		ay aw	

Longest [i: e: æ: ə: a: u: ɔ:] before /v z ʒ ʃ/

Rather long [i· e· æ· ə· a· u· ɔ·] before /b d g m n ŋ /

Long [iʷ eʷ æʷ əʷ aʷ uʷ ɔʷ] before /f s ʃ θ /

Short [i e æ ə a u ɔ] before /p t k /

Nasalization [ĩ ẽ æ̃ ə̃ ã ũ ɔ̃] before and after /m n ŋ /

"Each set of the sounds in one quality show pattern congruity with the others, nasalization in the same situations, and the same conditioning factors for length differences...but the qualities themselves are in contrast; any one of these substituted in any item for one of the others produces another item."²³

Consonants

A consonant is a speech sound made with closure or constriction at the point of articulation.²⁴ The consonants of English are divided into five general types:

1. Stops - speech sounds which are produced when there is constriction which sets the passing air stream into local turbulence.

A special type of stop is the affricate; the movement involves a special way of passing from a stop closure to a following sound or silence. It involves a single motion of the articulator which leaves the position closure slowly enough that a considerable amount of spirantal friction is audible.

2. Spirants - speech sounds which are produced when there is constriction which sets the passing air stream into local turbulence.
3. Nasals - speech sounds which are produced exactly like stops except that the velic is open. These sounds are not clear-cut contoids but are on the boundary between contoid and vocoid.

²³G. L. Trager, H. L. Smith Jr., An Outline of English Structure, (Washington: American Council of Learned Societies, 1957) p. 20.

²⁴George L. Trager, Phonetics, (Buffalo: Univ. of Buffalo, 1958) p. 6.

4. **Lateral vocoid** - a speech sound which is produced when there is a complete closure made medially but the air is allowed to pass at one or both sides between the edge of the tongue and the upper teeth. There is no local turbulence made when the air passes the sides of the tongue so that the sound is marked primarily by a certain coloring.
5. **Retroflex vocoid** - a speech sound in which the tip of the tongue is curled back and upwards to the dome of the mouth, or by placing it behind the lower teeth and bunching the central part up against the dome.

The following descriptions of the specific consonants are based on the dimensions of manner of articulation, point of articulation, voicing, relative muscular tension.

Stops

/p/ bilabial stop, voiceless, tense	/b/ bilabial, voiced, lax
/t/ apico-alveolar, or apico dental voiceless, tense	/d/ apico alv. voiced, lax
/k/ dorso-velar, voiceless, tense	/g/ dorso-velar, voiced, lax
/c/ lamino-alv. affricate, voiceless tense	/j/ lamino alv., affr. voiced, lax

Spirants

/f/ labio-dental, voiceless, tense	/v/ labio-dental, voiced lax
/ʃ/ lamino-alv., slit, vcls., tense	/ʒ/ lamino-alv., slit, vcd., lax
/s/ apico-alv. rill spirant, voiceless, tense	/z/ apico-alv. rill, voiced, lax
/θ/ apico-alv. slit, voiceless, tense	/ð/ apico-alv. slit, voiced, lax

Nasals

/m/ bilabial, voiced, lax	/n/ apico-alv., voiced, lax
/ŋ/ dorso-velar, voiced, lax	

Lateral vocoid

/l/ apico-alveolar with high back coloring, voiced, lax

Retroflex vocoid

/r/ apico-domal, retroflex, voiced, lax

Glides

/y/ glide vocoid, non-syllabic, in initial position, palatal on-glide with front vowel timbre, highest before high vowels, lowest before low V, and intermediate before a mid V.

/h/ glide vocoid, a voiceless onset, friction noise and an out from the center glide to the V position.

/w/ glide vocoid, velar, in initial position, a back vowel timbre.

Allophones and Their Distribution

Phoneme	Allophone	Distribution and Examples
/p/	[p']	Initial, internal before stressed V (peer, pout)
	[p]	Internal before weak V (apple)
	[p']	Final (tip cup)
/b/	[b̥]	Initial (big boy)
	[b]	Medial (ebony)
	[b̥]	Final (bulb)
/t/	[t']	Initial (tick)
	[t]	After one of short vowels before /l/ (spittle) When V preceded by C, or by /a/ plus C (bottle, rattle)
	[t']	Final (hit height)
/d/	[d̥]	Initial (dig big)
	[d]	Medial (candor border)
	[d̥]	Final (dread bride)
/k/	[k']	Initial (kid kite)
	[k]	Medial (extra accent)
	[k']	Final (kick pack)
/g/	[g̥]	Initial (gag gag)
	[g]	Medial (ego baggage)
	[g̥]	Final (rag bag)
/c/	[c]	All positions
/j/	[j]	All positions
/f/	[f]	All positions

CONTOLDS		PHONETIC CHART					
Manner		Bi-labial	Labio-dental	Apico-Alv.	Lamino-Alv.	Dorso-velar	Glottal
Stops	Vcls	p' p p'		t t t	c	k k k	
	Vcd	^b b b b ^b		^d d d d ^d	j	^g g g g ^g	
Spirants	Rill			s	^š š ^ž ž		
			f	^z z z z ^z			
	Slit			θ			
			^v v v v ^v	^ʒ ʒ ʒ ʒ ^ʒ			
Nasal		m m.	n n.			ŋ ŋ.	
Glides		^u u u		l l _x		ⁱ i i I ⁱ _i	^I I ⁱ _i I ⁱ _i
		^U U U		r ^r r r r ^r		^I I ⁱ I ⁱ	^I I ⁱ _i I ⁱ _i I ⁱ _i

CONSONANTS		PHONEMIC CHART		
Art.	Labial	Pre-dent.	Post-dent.	Dorsal
Vcl Stops	p	t	c	k
Vcd Stops	b	d	j	g
Vcl Spirants	f	θ	s	š
Vcd Spirants	v	ʒ	z	ž
Nasals	m	n	l	ŋ
Glides	w	r	y	h

Phoneme	Allophone	Distribution and Examples	
/v/	[^h v]	Initial	(van verve)
	[v]	Medial	(invite envy)
	[v ^h]	Final	(give live)
/θ/	[θ]	All positions	
/ð/	[^h ð]	Initial	(then there)
	[ð]	Medial	(father other)
	[ð ^h]	Final	(bathe breathe)
/s/	[s]	All positions	
/z/	[^h z]	Initial	(zone)
	[z]	Internal	(zigzag)
	[z ^h]	Final	(rose)
/ʃ/	[ʃ]	All positions	
/ʒ/	[^h ʒ]	Medial	(azure usual)
	[ʒ]	Final	(rouge)
/m/	[m]	Initial	(man)
	[m̥]	Medial	(temper)
	[m̥ ^h]	Final	(dim)
/n/	[n]	Initial	(knee)
	[n̥]	Medial	(answer)
	[n̥ ^h]	Final	(din)
/ŋ/	[ŋ]	Medial	(singing)
	[ŋ̥]	Final	(thing)
/l/	[l]	Initial	(low)
	[l̥ _x]	Final	(fill)
/r/	[r]	Initial	(row)
	[r̥]	Medial	(barrier)
	[r̥ ^h]	Vocalic nuclei	(car)
	[r̥ ^h]	Final	(rear)

	Pre-Vocalic Onglide	Example	Post-Vocalic Offglide
/y/	[i ^h]	(yield you)	[i]
	[i̥ ^h]	(yet yup)	[i̥]
	[e ^h]	(yap yatch yawn)	[e]
/w/	[u ^h]	(we woo)	[u]
	[ū ^h]	(wet work)	[ū]
	[ō ^h]	(wagon watt wall)	[ō]

/h/	[I ⁺]	(he)
	[e ⁺]	(help)
	[a ⁺]	(hat hot)
	[u ⁺]	(hut)
	[I ⁺]	(who)
	[ə ⁺]	(halt)

Middle-western American English has a special group of consonants which possess certain characteristic features. These give them their syllabic quality. Phonemically, these sounds are called syllabics and are represented as a combination of /ə/ and the corresponding sound such as /l r m n /. Phonetically, they are represented as single sounds with a dot subposed to it - /ḷ ṛ ṃ ṇ /. They occur in items like (button bottom learner ladle) and transcribed / butən batəm /.

ARRANGEMENT AND DISTRIBUTION OF PHONEMES

Familiarity with the physiological features of a language is just a portion of the total body that should be learned in order to gain proficiency of a foreign language. Knowledge of the arrangement and distribution of the phonemes resulting in meaningful combinations is also an essential part of the learning process.

In this study, the phonemic arrangement and distribution of English segmentals and suprasegmentals were viewed from the position of the phoneme within the utterance. A single phoneme or group of phonemes can appear in three possible positions within the framework of the utterance: initial - before the first syllabic of an utterance; final - after the last syllabic of an utterance; medial - between syllabics. Such arrangement suggests the structure of a syllable.

According to Bloomfield, "every utterance contains by definition, at least one syllabic phoneme."²⁵ The syllabic phonemes of English

²⁵Leonard Bloomfield, Language, (New York: Henry Holt and Co., 1933) p. 131.

are the vowels; the consonants are the non-syllabics. This means that a syllable may contain a vowel and one or more, or none of the non-syllabics.

The data contained in this section were taken from the findings of Bloomfield, Hockett, Trager and Smith, Hill and Wallace. The distribution of consonant clusters appear to be generally stable and show very little evidence of dialectal variations which are however, non-significant. Any dialectal variation may be due to the extent of borrowings from an adjacent foreign language or a former mother tongue of the inhabitants.

Vowels

The vowels of American English are always syllabic. This suggests that they are the "carriers" of the stresses and as such, they constitute the peaks of sonority within a syllable. So no utterance of English can occur without at least one vowel present.

There appears to be more freedom of distribution in the vowels. They may occur in any utterance position - initial, medial or internal, and final. But there are no vowel clusters in middle-western American English. A sequence of two or more vowels means the presence of two or more syllables.

Although there is unlimited freedom of distribution of the vowels as a class, some limiting statements on the occurrence of individual phonemes are the following:

1. There are no stressed vowels in final position in an utterance.
2. The unstressed vowel may occur in final position in an utterance.
3. A stressed vowel, and an unstressed vowel may occur in initial or medial position in an utterance.

Of the diphthongs, some limitations of distribution are as follows:

1. /iy ey ow/ occur before /r s/ as in (fierce pairs course).
2. In mid-western American English, /yuw / may occur as variants of /u w/ after /t d θ s l st/ as in - (tune dew thews sue lute stew). These, however, occur only as affectations.
3. The diphthongs /uw ow aw/ never occur before /ŋ/.

Consonants

The consonant phonemes of middle western American English has maximum freedom of distribution except /ŋ/ /ʒ/. All others - /p t k b d g c j f θ s ʃ v ʒ z m n l r w y/ may occur in any position in an utterance - initial, medial, final. In utterance initial position, /ŋ ʒ/ cannot occur except in foreign names such as (Jeanne, Jacques, Ngaio), but they can occur medially and finally.

Five of the non-syllabics that occur in initial position never appear as members of an initial cluster - /v θ z c j/, "A cluster is defined as a sequence of two or more phonemes of the same class without the intervention of a phoneme of another class."²⁶

Initial Clusters

The initial clusters all begin with one of the following - /p t k b d g f θ s ʃ h/. Clusters of two consonants occurring in initial position often have /r l w y/ as second members:

/r/ as second member - /pr tr kr br dr gr ʃr fr
θr / (pride try crack bread draw grow fry thread
shrew)

/l/ as second member - /pl kl bl gl fl sl/
(play clay black glad flow slow)

²⁶Archibald Hill, Introduction to Linguistic Structures, From Sound to Sentence in English (New York: Harcourt Brace, 1958) p. 69.

/w/ as second member - /tw kw dw gw θw sw hw/
(twenty quick dwell Gwen thwack swell when)

/y/ as second member - /py ky by gy fy θy vy/ /my hy/
(pure cure beauty gewgaw few thews view music human)

With some speakers, also - /ty dy sy ny ry ly/ (tune due sue new).

Nearly all middle-westerners pronounce such words simply with
/t d s n r l/.

The limitations of distribution of the above phonemes:

/r/ never occurs after /s h/

/l/ never occurs after /t d θ s h/ except in the case of
/l/ as in (middle little)

/w/ never occurs after /f/ except in imitation baby-talk,
or foreignisms, e.g. Fwegians

/s/ has special clustering habits. If the first member of
the cluster is /s/, it may be followed by - /p t k f θ m n/ and rarely
/v/ as in (spill slate skill sphere sthenic smile snare svelte).

Recently some parallel clusters with /s/ as first member have
been coming into use - /ʃm ʃn ʃl/ (schmoo Schneider Schlitz). Phonemes
/c j/ do not figure in initial clusters. The combinations of /ʃm ʃn
ʃl/ are mainly through German influence.

Initial clusters of three consonants all begin with /s/ and end
in /r l w y/ as in /spr str spl skl skw spy sky (spread stretch scratch
sclerosis squelch spume skew splash).

The largest number of consonants which can occur in an initial
cluster is three. Only /s/ can go into first position, - /p t k/ in
second position and /r l w y/ in third position.

Clusters of identical phonemes cannot occur in initial position
in middle-western American English.

Final Clusters

English final clusters consist of two, three, and four non-syllabics.

Final clusters of two consonants are the following:

With /f v ɸ θ s z ʃ ʒ/ as first members and /t d/ as second members - /ft vd ɸt θd st zd ʃt ʒd/ as in (aft bereaved toothed wreathed list raised cashed rouged)

/ bd pt jd ct gd kt/ as in (robbed apt judged itched dragged act)

With /r/ as first member and /p t k b d c j f θ s ʃ v m n l/ as first members - /rp rt rk rb rd rc rj rf rθ rs rs rv rm rn rl/ (harp heart hark barb bard march barge scarf hearth farce harsh carve arm barn twirl)

With /l/ as first member and /p t k b d c j f v θ s ʃ m n/ as second members - /lp lt lk lb ld lg lc lj lf lv lθ ls lm ln/ (help belt milk bulb held filch bilge pelf delve wealth else Welsh elm Milne)

With /n/ as the first member - only before /t d c j θ s z/ as in /nt nd nc nj nθ ns nz/ - (ant sand pinch range month once bronze)

With /m/ as the first member, only before /p t f θ z/ as in /mp mt mz/ /mf mθ / - (camp dreamt nymph swims warmth)

With /ŋ/ as the first member, only before /k θ/ as in /ŋk ŋθ/ - (link length)

With /s/ as the first member, only before /p t k/ as in /sp st sk/ (wasp test ask)

With /ð z/ as first members, only before /m d/ as in /ðm θd zm zd/ (rhythm wreathed chasm gazed), sometimes /θm zm/ appear as /θə m/ and /zə m/.

With /t/ as first member, only before / s c ɹ/ as in /tθ ts tc/ (eighth Ritz stitch)

With /p k/ as first members, only before /t s θ/ as in /pt ps kt kθks/ - (crypt lapse act six sixth)

With /t/ as the first member, only before / s ɹ c/ as in /tθ ts tc/ - (eighth Ritz stitch)

With /d/ as the first member, only before / z ʒ θ / /dθ dz dz/ (width adze ridge)

With /f/ as first member, only before /t s θ/ as in /ft fs fθ/ (lift scuffs fifth) /fθ/ occurs in careful speech but often simplified to /θ/

With /v/ as first member, only before /z d/ as in /vz vd/ (leaves bereaved)

Final clusters of three consonants are the following:

With /s/ as the first member, /p t k/ as the second members, and /s t/ as third, as in /sps spt sks skt sts/ (lisps lisped lists risks asked)

With /r/ as first member, and second member:

1. /b d g l m n/ and /z/ as third member /rbz rdz rlz rmz rnzrgz/ - (Charles words bergs herbs charms burns)
2. With /p t k b d g c j f v θ ð s l m n/ and /t d s θ/ as third members - /rpt rkt rbd rgd rct rjd rft rvd rst rθt rðd rld rmð rnt rnd/ - (usurped worked orbed berged arched diverged scarfed carved first earthed birthed world warmth burnt spurned)
3. With /p t k/ and third member /s/ as in /rps sts sks/ (corpse hearts parks)

With /l/ as first member, /p k b d j s s f v θ/ as second members and /z/ /t/ /d/ as third members as in /lpt lkt lbd ldz ljd lst lft lvd lθt/ as in (scalped hulked bulbed bulged pulsed welshed selfed shelved healthied).

With /m/ as first member /s f θ p/ as second members and /t/ as third member as in /mst mft mθt mpt/ - (glimpsed humphed warmth exempt). In some idiolects it is possible to have /mpst mpθt/ but the cluster is usually broken by a juncture.

Again with /l/ as first member, /p t k/ as second member and /s/ third member as in /lps lts lks/ - (Alps halts hulks).

With /n/ as first member, /d s z θ c j/ as second members, /t d z/ as third members as in /ndz nst nθt nct nzd njd/ - (mends fenced plinthed bunched cleansed arranged).

With /ŋ/ as first member, /k θ/ as second members and /t/ as third as in /ŋθt ŋkt/ - (strengthened linked). In some idiolects, the occurrence of /ŋk θt/ instead of /ŋkt/ is possible but the cluster is usually broken up by a juncture.

With /p/ as first member, /θ s/ as second members and /t/ as third /pθt pst/ - (lapsed depthed).

With /t/ as first member, /s/ as second member and /t/ as third:
 /t/ /tst/ - (blitzed).

With /d/ as first member, /z/ as second member and /d/ as third as
 in /dzd/ - (adzed).

Final clusters with four consonants:

The commonest 4-consonant cluster is /rldz/ - (worlds); others are
 /mpst nkst ksts ksθs/ - (glimpsed jinxed texts sixths).

According to Hill, the occurrence of 4-consonant clusters are less than fully established since they are subject to loss of some phoneme, or to breaking up by a juncture.²⁷

A 5-consonant cluster is theoretically possible according to Hill but it is non-existent as in (warmthed) - /wɔɹmpθt/ except in isolated literary cases as in /hɑɹmpst/ (harm'st).

The limitations of cluster arrangement other than those mentioned above are:

1. Clusters of identical consonants do not occur in final position in English,
2. Semi-vowels do occur before final consonants and clusters, but in this position they are classified as members of the vowel nucleus.

Intervocalic Consonant Clusters

Medial clusters are defined by Hill as "intervocalic clusters not immediately preceded or followed by a juncture and not interrupted by one."²⁸ If followed by a juncture, it is treated as an initial cluster; if preceded by one, it is a final sequence. Just as juncture will determine whether a sequence of two or more phonemes of the same class

²⁷Ibid., p. 83.

²⁸Ibid., p. 84.

may be medial or not, syllable grouping will have something to do with the occurrence. It will not interfere with the cluster becoming a medial one, unless juncture produces the division. If the division is not due to juncture, then the sequence is a genuine cluster since "syllable division is not a phoneme so that a sequence of intervocalic consonants of which it is composed may belong to different syllables."²⁹

The first group of medial clusters are those composed of two consonants:

1. A combination of a final consonant and an initial one without juncture breaking it up. (The possibilities are tremendous so only a few illustrations will be listed).

/-pt-/	helicopter	/-lp-/	helper
/-ps-/	capsule	/-rp-/	sharper
/-pm-/	shipment	/-mp-/	limping

2. Any initial cluster can become a medial cluster if juncture before it is lost - /spl/ of (splash/ becomes /-spl-/ in (display).
3. Any final cluster can become medial by the loss of a following juncture as in /-rps/ of (harps) becoming /-rps-/ in (harpsi-chord).

The limitations on the occurrence of medial consonant clusters are essentially limitations on the loss of the juncture between them. Instances where there is no loss of juncture thereby producing no medial clusters are:

1. Between identical consonants /p+p/ - (stop payments)
2. Between paired consonants if they differ in voice quality as in /p+b/ - (stop Bill)
3. Between a nasal and a stop of differing order /-m+k-/ (from candy)
4. Between differing nasals /-m+n-/ (in most).

²⁹Ibid., p. 85.

Medial Combinations

There is a special group of consonant sequences which, although not medial clusters in the sense that it has been defined as such, are medial combinations which are just as necessary for the learner to know. They are composed of sequences which are final and initial respectively. They occur in medial position within the utterance. Betty Wallace's doctoral dissertation is an exhaustive listing of such sequences.³⁰ It is an analysis of present-day consonant clusters classified as medial combinations, done quantitatively. Such combinations are divided into seven separate groups on the basis of the number of consonants appearing within the initial and final positions. These groups are symbolized by the following formulae; in which C equals any consonant which is permitted in that particular position. The structural types of medial combinations are the following:

C + C	t + m	get me
C + CC	t + θr	get through
C + CCC	n + str	been struggling
CC + C	ts + j	its just
CC + CC	st + θr	just through
CCC + C	rst + f	first forty
CCC + CC	rkt + θr	worked through

The classification of consonants in Wallace's study involves:

1. Clusters in syllable initial position
2. Clusters in syllable final position

³⁰Betty Jane Wallace, "A Quantitative Analysis of Consonant Clusters in Present-Day English," (Unpublished PhD. dissertation, Ann Arbor: Univ. of Michigan, 1950).

3. Combinations of syllable initial and syllable final consonants in medial position within utterances.

The structural types presented, comprise according to Wallace, "the consonant sequences which have the highest relative frequency in the stream of speech." Many possibilities may occur, and for a comprehensive listing of them, one is referred to Wallace's doctoral dissertation.³¹ More illustrations of the structural types are:

C + C combinations

n+θ	even then	r+θ	year they	t+h	right here
n+w	and was	r+θ	after things	l+w	couple weeks

C+CC

t+st	at state	v+kw	have quite	z+st	boys stay
t+fr	right from	v+tr	we've tried	s+θr	is through

C+CCC

n+str	been struggling	m+str	am struck	v+skr	have skripts
n+skw	and square	s+str	previous strata	k+spl	look splendid

CC+C

nt+θ	point that	ts+θ	its that	rd+s	word sent
ŋk+y	think you	st+θ	almost that	lf+r	self respect

CC+CC

ts+pr	its probably	mz+θr	comes through	pθ+fr	depth from
ts+kl	lets clear	nd+θr	and three	kt+pr	looked pretty

CCC+C

nts+r	grants really	ndz+v	sounds very	rmθ+1	warmth led
rst+p	first part	rkd+t	worked to	pst+b	lapsed but

CCC+CC

rkt+pr	worked pretty	njd+pl	arranged places	rkt+θr	worked through
rst+kw	first quarter	rst+fl	first floor	mpt+fr	exempt from

³¹Ibid.

SUPRASEGMENTAL PHONEMES OF AMERICAN ENGLISH

The smallest utterance of English contains phonemes of pitch, stress, terminal contours and internal juncture, and segmentals. The segmentals may be a vowel with either a semi-vowel or a consonant to go with it.

The phonemes of pitch, stress, juncture, of English or of any other language are linguistically termed the suprasegmental features. Every utterance has them - they are superimposed on the segmentals and as such give added meanings to the utterances.

The first suprasegmental to be discussed is the stress phoneme. Every given English utterance exhibits varying degrees of loudness or prominence. These are concentrated on the vowels. Such contrasts are, according to Trager and Smith, "consistent in their respective strengths and their location is seen to be constant within systematic possibilities of variations."³²

Middle-western American English exhibits 4 contrasting degrees of stress. They are:

/ / primary - most prominent, constituting maximum normal loudness.

/ ^ / secondary - next most prominent, always present with the occurrence of plus juncture / + /.

/ ' / tertiary - prominent, contrasting with the other two.

/ ˘ / * weak - least prominent, indicating absence of stress.

*(Notation given when needed; otherwise will not be indicated.)

To illustrate the contrasts:

	Monosyllabic	Disyllabic	Polysyllabic
Primary-stress falls on the vowel	yés	abóve	operátion

³²G. L. Trager, H. L. Smith Jr., An Outline of English Structure, (Washington: American Council of Learned Societies, 1957) p. 35.

Secondary - contrasted with primary -

élevator+ôperator	dûsty+windows
black+bôard	brîef cásé

Tertiary - contrasted with primary briéfcásé gréénhouse syntax³³

Weak contrasted with primary and tertiary:

ánímation	Pharîsée
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Contrast of four stresses:

a+nécéssary+stép

Stresses also form patterns which are meaningful. Hill suggests the following:

1. Patterns /[^] ' / and / ' ' / commonly distinguish a construction consisting of an adjective and a noun from a compound noun
 bíg+head bíghead (conceited person) hôt+ród hótród (car)
2. /[^] ' / and / ' ' / also distinguishes verb construction from compound nouns which contain verbal elements
 hòok+úp hóokúp píck+pockets pickpockets
3. Pattern / ' ' / characterizes some verbal compounds so that there are also contrasts like

týpe wríte	typewríte
------------	-----------

Other variations of stress which are possible are the following, in which all are correlated with differences in meaning:

a bláckbird's nést	(nest of blackbird)
a bláck bírd's-nést	(birds-nest which is black)
a bláck bírd's nést	(nest of a black colored bird) ³⁴

Terminal Contours (Junctures)

An English utterance is marked by transitions which are manners of

³³Hill, op. cit., pp. 16-17.

³⁴Hockett, op. cit., pp. 20-21.

terminating or of shifting over from one item to another. Such phenomena are "elements in the sound system that act as boundary signals which distinguish utterances where they fall."³⁵ The phonetic characteristics of these transitions are movement and timing. The terminal contours are symbolized as:

Hockett	Description
/↑/	Terminal upturn, always involves a terminal rise in pitch even if the rise has first dipped down from a higher level.
/↓/	Terminal downturn, absence of a terminal rise and characterized by a fading-away of the force of articulation, often with a drawling of the last few vowels and consonants.
/ /	A suspension or level, no upturn or downturn, an impression of uncompleted utterance, speaker goes right on talking.

The terminal contours' general identifying characteristic is timing.

Their function is to prolong the immediately preceeding sound or sounds in varying degrees and no sentence or phrase can end without one of these occurring. Such prolongation is about equal to the length of one average sound: one and one-half average sound for /↑/, and two sounds for /↓/. These are terminal junctures in the sense that they occur at ends of sentences or phrases. To illustrate:

1. a) one | two | three | four↑
(The sequence leaves the hearer with the expectation that the counting will continue).
- b) Have you seen | them↑
(There is terminal upturn, an answer is expected).
2. a) one | two | three | four↓
(Occurrence of /↓/ is interpreted as a signal that the counting is complete).

³⁵Hill, op. cit., p. 21.

- b) The sun's rays | meet ↓
(Fading away of the force of articulation, a terminal downturn)
3. a) one | two | three | four ↓
(No upturn or downturn, speaker goes right on talking until his utterance is completed, signalled by /↓/)
- b) Well |
(Someone is about to answer a complicated question, so he starts; then realizes that he must take time out to think his answer).

Internal Juncture

Another type of juncture is the internal juncture, phonemically symbolized by /+/. This type occurs within the borders of a phrase; it can not occur at the end of either sentence or phrase.³⁶ Like the terminal contours, /+/'s distinguishing feature is timing. The only difference between the /+/- juncture and the terminal contours is that the prolongation is a "half-unit only, the unit being the period of time about equal to the length of one average sound. /+/- is like /|/ in lacking any feature of pitch modification."³⁷

Hockett describes /+/- as a "sharp transition within...(a stretch of material spoken with a single intonation). This simply means that within a phrase with a single intonation pattern, the transition from the phoneme to another is clear-cut:

nigh^ˈt+rātes (the /t/ of night is cleanly finished and then the speaker starts afresh with the /r/ of rates)

The appearance of this type of juncture is correlated with the occurrence of the secondary stress /˘/. It is only in this instance

³⁶Ibid., p. 24.

³⁷Ibid., p. 25.

where the possibility of its occurrence can be predicted, as there are only as many instances of secondary stress /[^]/ as there are /+/, but there may be more /+/. than secondary /[^]/.

Additional illustrations of /+/:

élevàtor+¹operàtor
lông+island

bláck+bird
whíte+house³⁸

Pitch

There are four pitch levels in English. Such is the finding of independent researches by Pike, Wells, Trager and Smith, Hockett, and Hill to mention a few. They are described as - low, mid, high, very high, and phonetically represented in numerals, with the lowest number for low and the highest number for the highest - /1/ /2/ /3/ /4/. These numbers do not represent absolute values. The pitch phonemes are relative in quality.

According to Hill, the "pitch patterns of English are best analyzed as belonging to the sentence as a whole rather than to the word. The pitch patterns together with their terminals distinguish one sentence from another.³⁹ The contrasting pitches of utterance, whether terminal or not are produced by the varying rapidity in the vibration of the vocal cords; as the rapidity increases, the pitch rises.

Pitch phonemes per se have no significance other than to indicate differing levels but when they form themselves into intonation contours, they give added meanings to the utterances. "They modify," according

³⁸Trager, G. L., H. L. Smith Jr., An Outline of English Structure, (Washington: American Council of Learned Societies, 1957) p. 39.

³⁹Hill, op. cit., p. 26.

o Pike, "the lexical meaning of a sentence by adding to it the speaker's attitude toward the contents of that sentence or an indication of the attitude with which the speaker expects the hearer to hear."⁴⁰

The following illustrate contrasts in pitch levels:

Jack: Where are you going

Bill: 1.³Home¹↓ (a matter of fact reply without any implication that Jack really ought to know the answer without asking)

2.³Home²↓ (implies that Bill has nothing else left to do)

3.⁴Home¹↓ (implies that Bill is going home as it is
1 1↑ already late)
1 2↑

Jack: Are you going home now

Bill: 1. ¹Yes¹↑ (implies that Bill has to go as it is already late, or that Bill is to continue with some comment on his answer)

2. ²Yes²↑ (Jack has quietly called Bill to get his attention, and Bill indicates that he is listening)

3. ³Yes³↑ (Bill has asked Jack to do something hoping for an affirmative answer but he does not quite hear Jack's response so he asks - did you say yes? - by saying the above)

Bill answering a complicated question so he has to think through what he is going to say before saying it, either of two ways:

a. ³Well³|

b. ³Well³↓

Statement (a) is cut off suddenly without forewarning giving the hearer an impression that the speaker has realized only after beginning to speak that he must take time to think his answer out.

Statement (b) fades away from the outset and the listener is given the impression that the speaker realized at the outset the necessity that he must take time to think his answer out and so he is indicating to the listener that the necessary cogitation is under way.

⁴⁰Kenneth L. Pike, The Intonation of American English (Ann Arbor: Univ. of Michigan Publications in Linguistics I, 1945) p. 21.

The highest of the four pitch levels is /4/. According to Hockett, it occurs somewhat less frequently than the other three in a smaller variety of intonations. To illustrate the contrast:

- a. ²I want to go³there¹↓ b. ²I want to go⁴there¹↓

Statement (a) is a matter-of-fact statement, while (b) is some sort of special or contrastive emphasis.

- c. ²Is³your name Bill⁴↑ d. ²Is⁴your name Bill⁴↑

Statement (c) is straightforward, while (d) is surprised.⁴¹

The four pitch levels and the three terminal contours /1 2 3 4/ |, ↑, ↓ constitute according to Hockett the stock of intonational phonemes of English.⁴²

In an English utterance, a given set of pitch phonemes will be correspondingly accompanied by any of the terminal contours. The commonest and most colorless intonation for short statements is /2 3 1↓/. To illustrate:

- ²My name is³Bill¹↓ ²What's your³name¹↓

This intonation pattern is also for short questions built around question words - who where what.

Questions that allow a "yes" or "no" answer have this most neutral intonation: / 2 3 3 ↑ /.

- ²Is your name³Bill³ ↑ ²His name is³Bill³↑

A perfectly normal question pattern is / 3 2 2 | 2 3 1/

- ³What do you²do²|²with a stiff³neck¹↓

⁴¹Charles Hockett, A Course in Modern Linguistics, (New York: Macmillan Co., 1958) pp. 38-39.

⁴²Ibid., p. 42.

Other common middle-western American English patterns:

1. Impatient - ²I³told you so²↑ or /2 3 1 ↑/
2. Good bye - ³So²long²↓ or /3 2 2 ↑/
3. Very businesslike - ³Tell me about your²friend¹↓
4. Alternatives - ²Do you want³coffee³↑²or³milk¹↓
5. Biological assertion versus philosophical assertion:
²The man in the³street²|²is my³brother¹↓
²the³man in the³street³|²is³my³brother¹↓
6. A threat, versus mere advice:
²You'd³better do it¹↑ ²You'd better³do it²↓
7. Prediction verified, versus prediction wrong, but relinquished reluctantly:
²See²↑²I³thought so¹↓ ³We'll²↓²I³thought so¹↑
8. Regretful or doubtful
²He's³gone²↓
9. Exasperated
²I³don't¹know²↑
10. Tired, possibly disgusted:
²I want to go²home¹↓ or / 2 1 1 ↓ / ⁴³

DISTRIBUTION AND ARRANGEMENT OF SUPRASEGMENTALS

The distribution of the suprasegmentals is different from that of the segmentals. Some features permit clustering, while others do not. Some can occur only at the end of utterances, others only internally. But all or parts of the suprasegmentals are necessary components of an English utterance.

⁴³Ibid., pp. 34-35.

The phonemes of pitch and stress are necessary in that no English utterance occurs without them. They occur simultaneously with each other. Only the same members of a class cluster - pitches cluster with each other and stresses, the same thing.

Limitations on the clustering of stress:

1. The number of stress phonemes always corresponds to the number of vowels in the utterance,
2. A primary stress cannot cluster with itself because vowels carrying such stresses are always separated by non-vowels.
3. A secondary and a tertiary or weak stress can cluster together or with a primary stress.

Regarding the arrangement of stress phonemes, Hockett in his analysis indicates that:

1. In single syllable macrosegments (stretch of material spoken with a single intonation), the primary stress /' / is necessarily present:

Yés Jónh Héy

2. In di-syllabic macrosegments, /' / is necessarily present on one of the syllables, the remaining syllable may bear /˘ / /˙ / or no stress at all:

Jónh+stòpped Jónh stòpped
Bláck birds Jónhny

3. There are one syllable words in English which when used with other words in longer macrosegments customarily appear without any stress phoneme. Some examples are: (the a an is are)
4. There are other one syllable words which seem to vary freely between no stress and secondary:

The ówl+in+the+attic The ówl+ìn+the+âttic

5. Some one syllable words rarely if ever appear unstressed but vary freely between primary and secondary, sometimes with a contrast of meaning - ⁴⁴

Jónhny+ràn+òut (of the room) Jónhny ràn óut (of money)

⁴⁴Ibid., pp. 50-52.

Pitch

Distributional statements on the occurrence of pitch phonemes include:

1. In a monosyllabic utterance, the maximum number of differing pitches is three:

³Sure¹↓

³Sure¹↓

²Sure²↑

2. In a polysyllabic utterance, the minimum number of differing pitches is three; the initial pitch becomes that of first vowel, middle pitch that of the syllable with primary stress and final pitch that of the last vowel.
3. The middle pitch of an utterance can be the highest pitch only if the pattern is rising-falling. If the pattern is falling, the highest pitch is initial, if it is rising, the highest pitch is final, as in

³I'm²coming²↓

²Really³↑

4. In all 3-phoneme pitch patterns, the middle pitch is always the syllable with primary stress but may not necessarily be the highest pitch:

²Sure³ly¹↓

²Of³course¹↓

2-pitch points always coincide on the syllable with primary stress whenever this syllable is either initial or final:

²Certainly¹↓

²The new bill³passed¹↓

There are two pitches on each of the primarily stressed syllables in the preceeding utterances though each has more than two syllables each.⁴⁵

Terminal Contours

There is always a terminal contour at the end of an utterance. It may be /↑/ indicating that the utterance is uncompleted and that there is more to come. // occurs where the speaker goes right on talking and /↓/ indicating that it is finally completed.

⁴⁵Hill, Op. Cit., pp. 108-109.

Statements on the arrangement of terminal contours are:

1. All the terminal contours occur before silence.
2. They do not cluster, since there are never two junctures in succession.
3. They are not necessary in an utterance in that every utterance has at least one class.
4. They occur in sequential order with vowels and consonants.
5. The position is unpredictable. When these are placed, there is correlation of pitch with stress and stress with segmental material.⁴⁶

Internal Juncture

The occurrence of internal juncture /+ / has the same limiting factors as the terminal contours, with one exception; it never occurs at end of utterances indicating sharp transitions from one phoneme to another. Hockett's analysis on the distribution of middle-western American English /+ / shows that:

1. when two successive (not necessarily adjacent) vowels within a macrosegment both bear /' /, there is always a /+ / somewhere between them and its location is easy to hear,
 - a. Frée+Dánný frééd+Ánnie fúll+stóp fálse+tóp
 - b. seé+eíght trý+óurs (no contrast possible)
2. when a stressed vowel is preceeded by one or more consonants, it is always clear whether the last consonant or so in sequence goes with the stressed vowel or not; it is not necessary that the next preceeding vowel also bear /' /,

it+spráys its+práise it+swíngs its+wíngs
3. between an unstressed vowel and a following consonant, there seem to be no occurrence of /+ /,

Gètabóard

⁴⁶Ibid., pp. 69, 106.

4. between a consonant and a following unstressed vowel, there seem to be fewer occurrences of /+/,

pêrsonal+ap'péal

Normally, transition is not sharp. It is "muddy."

5. after a stressed vowel, it is always clear whether the following consonant if any goes with the vowel or is separated from it by /+/. It is not necessary that the next vowel also be stressed,

cêase+trúcking

cêased+rúnn'ing

dâte+a+wéék

dây+to+weáken

6. if there are no intervening consonants between successive unstressed vowels, there is always a /+/,

the+idéa alârms me

7. if one word ends with an unstressed syllable and the next word begins with one, there is no /+/- unless the first word ends with a vowel and the second begins with one,

JúneauAlá'ska

pírates of+Ánna

8. in contractions with (is) or (has), such as (John's) and (he's), the form (he's) is usually spoken with no /+/-, but (John's) often has one,

Jóhn+s+gô'ing

In the possessive form, (John's), /+/- drops as muddy transition is customary, (muddy transition refers to the normal transition between syllables)

John's hat

9. The word (of) is often pronounced /ə/ with no following /+/-,

the nine /ə/ spades⁴⁷

ENGLISH SYLLABICATION AND RHYTHM

Syllabication

Every minimal utterance in English consists of a combination of

⁴⁷Hockett, op. cit., pp. 55-59.

phonemes grouped together in orderly sequences. The grouping always involves a vowel or vowel nucleus, one or more consonants and/or semi-vowels, features of stress, intonation and juncture.

The combination of sounds always contain a vowel, upon which the stress is superimposed. Any or all of the suprasegmentals are always present, plus the vowel, but it may or may not have a consonant or semi-vowel. The vowel is the syllabic portion and the consonants are the non-syllabics. "An utterance is said to have as many syllables as it has syllabics."⁴⁸ The term for this grouping of phonemes is "syllable."

Einar Haugen defines the "syllable" as "the smallest unit of recurrent phonemic sequences,"⁴⁹ Wallace describes it as "units of speech which are carriers of the phonemes."⁵⁰

The syllable is a convenient framework for describing phonemic distribution into initial, medial and final positions. Conversely, the internal structure of the syllable can be described in terms of the phonemes that constitute it.

The minimal pattern of an English syllable is the vowel. No English syllable will occur unless there is a vowel in it, and no two vowels can occur in sequence in one syllable. There may be as many consonants in prevocalic or postvocalic position as can be permissible.

⁴⁸Leonard Bloomfield, Language, (New York: Henry Holt and Co., 1933) p. 121.

⁴⁹Einar Haugen, "Syllable in Linguistic Description," For Roman Jakobson - Essays (The Hague: Mouton and Co., 1956) pp. 214-218.

⁵⁰Betty Jane Wallace, "A Quantitative Analysis of Consonant Clusters in Present-Day English (Unpublished PhD dissertation, Ann Arbor: Univ. of Michigan, 1950) p. 22.

Any semivowels that occur in it are either on-glides or off-glides of the preceeding or succeeding vowel.

The syllables of English are of the peak type. The syllable peak is where the sonority is highest and usually longer in duration. According to Hockett,⁵¹ "there are as many syllables as there are syllable peaks," and the syllable peaks are concentrated almost exclusively on the vowels. The exceptions are four "syllabic" consonants, phonetically written [l̥ m̥ n̥ r̥]. Phonemically, they always occur after a weak vowel like /ə/ as in the following: /batəl batəm batən lənər/. These, however, occur only in syllable final position.

Examples of monosyllabic utterances are the following:

/bit bet bæt bət bɔt bar bur/

There seems to be general disagreement among linguists regarding syllabication of English polysyllabic utterances. In some instances the juncture may produce syllable division, in others it may occur without /+/. In the following examples given by Hill, the morpheme is syllabified by the juncture: /+/ in:

/kæp+suwl/ /diyp+liy/

In instances where the division is not due to juncture, the division may fall at the center of a particular sound shared by two contiguous syllables. For example: /d̥ d̥ l̥/

/mædiy/ /dis+kɔrdənt/ /di+veləp+mənt/

Such sounds are ambisyllabic.

⁵¹Hockett, op. cit., p. 89.

Rhythm

The rhythm of American English is stressed-timed. This means that at a given rate of utterance, it takes just about the same length of time to move from one primary stressed syllable to the next.⁵² The presence of intervening syllables will not affect the rate of movement. Unstressed syllables are usually crowded together giving the impression of slurred speech. In modern English verse, however, syllable timing may be used for effect.

This chapter has been a study of the aspects of middle-western American English. It was not a complete listing of all the possible features. What were included were items which the writer believed to be useful for the educated Ilocano in improving his English speech.

⁵² Ibid., p. 52.

CHAPTER IV

PHONOLOGICAL PROBLEMS INVOLVED IN TEACHING

Introduction

In order to locate the problems the instructor may anticipate in teaching a foreign language, a contrastive analysis between the phonologies of the target language and the native tongue of the learner should be made.

This study attempts to compare English and Iloko. The comparison is made from the point of view of the Ilocano in improving his English speech. The English sounds not found in his own sound system are isolated and listed as new categories and reinterpreted categories. Since such sounds would be unfamiliar to the Ilocano, they may prove to be difficult for him to learn or master. They are the predicted critical sounds for the Ilocano and as such will need some verification whether this view will hold or not.

To verify these predictions, samples of the English speech of Iloko speakers were obtained and analyzed. A hypothesis was set up to test statistically whether it was valid or not. The test for validity was the chi-square and the frequency distribution which was a test for differences between two proportions. The latter was used to find out the ratio of agreement between the standard speaker and the non-native speaker on the production of the English sounds. If there was a high frequency of agreement, then the hypothesis would be nulled, but if there was a low ratio of agreement, then the hypothesis would be valid. This applied to the predictions only. The sounds were then ranked

according to percentage of difficulty, ranging from the most difficult to the least difficult in intervals of twenty from 0-100 percent.

Contrastive Analysis of Iloko and English Phonologies

ILOKO		ENGLISH
Segmentals		
Consonants		
p t k		p t c k
b d g		b d j g
s h		f θ s š h
		v ð z ž
m n ŋ		m n ŋ
l		l
r		r
y w		y w
Vowels		
i u		i u
e		e ə
a		æ a ɔ
Diphthongs		
iy iw uy uw		iy uw
		ey oy ow
ay aw		ay aw
Suprasegmentals		
Stress: /' /' /' /' /		/' /' /' /' /
Pitch: /1/ /2/ /3/		/1/ /2/ /3/ /4/
Terminal Contours: / / / / /#/		/ / /↑/ /↓/
Internal Juncture: /+ /		/+ /

ILOKO	Syllabication	ENGLISH
Vowel is nucleus		Vowel is nucleus
Peak type		Peak type
Syllable timed	Rhythm	Stress timed
a. Initial clusters	Arrangement of Clusters	1. 3-consonant clusters possible
1. No consonant clusters in Iloko		
b. Medial clusters		2. Many possibilities of 2 or more consonants
1. 2-consonant sequence is maximum		
c. Final clusters		3. 3-4 consonant sequences possible.
1. None in native		

Categories

1. New categories (for the Iloko speaker)

/ c j f θ s v ʃ z z/ /ey/ /4/

2. Reinterpreted categories - (some phonetic dissimilarities)

[p' t' k'] [i u iy] [uw oy ow] [↓]

3. Parallel categories (phonetically similar in a rough way)

/ b d g s h m n ŋ l y w /
/ ʻ ˘ ˙ / / 1 2 3/ //↑/ /+/

4. Extra categories (Phonemes in Iloko not found in English)

/ʔ/ / iw uy/

Predicted Difficulties for the Iloko Speaker

I. New sounds

1. Phonemes most likely to be difficult

a. Segmentals

Affricates	/c j/						
Spirants	/f θ ð s v ʒ z ʒ/						
Vowels	/æ ɔ ʊ/						
Diphthong	/ow oy/						

b. Suprasegmentals

Pitch phoneme /4/
Terminal contour [↓]

II. Allophones of similar but not identical phonemes may present some difficulties

a. Segmentals

Initial stops: [p' t' k'] Vowels: [i I]
 [u U]

Retroflex: [ʂ]

(Vocalic
nuclei)

Diphthongs

/ iy oy/

/ OW UW/

III. Problems in rhythm

1. English rhythm is stressed timed, meaning that the syllables which are secondarily, tertiarily or weakly stressed are crowded together in an utterance until another primarily stressed syllable is reached.
2. Iloko rhythm is syllable timed, meaning that a non-primary stressed syllable has the same rate of speed of utterance as the primary stressed one.

IV. Patterns in distribution

Since both systems have similar sets of distribution as in initial, medial and final positions, this phase may not present too many difficulties except in the following cases:

[p' t' k'] in initial position

/ c j f θ š v ø z ʒ/ will present articulatory difficulties in any position.

V. Problems in arrangement

1. English initial clusters of 2 or 3 consonants may present some difficulty,

2. English final clusters of 2 or more consonants may present some problems,
3. English medial clusters especially of the 2 consonant type may or may not present difficulties to the learner, depending upon whether the sequences are new to him or not.

VI. Problems in stress placement

Difficulties in determining the correct stress placement of some multisyllabic items due to unfamiliarity with them.

Types of Errors

1. Most of the common difficulties may come in the form of sound substitutions and sound distortions on
 - a. new and unfamiliar sounds
 - b. similar but not identical sounds
2. There probably will be errors in addition and omission due to the insertion of a plus juncture where it is not necessary,
3. There will probably occur some unnatural intonation patterns especially at the end of utterances,
4. There will probably be errors in rhythm due to the failure of obscuring unstressed syllables in polysyllabic items,
5. Some errors are expected as a result of unfamiliar placement of stress on polysyllabic words,
6. Some errors may arise due to improper sentence stress and improper division of utterances into juncture groups.

Verification of Predictions

To verify the predictions, the following procedures were followed by the investigator:

1. Set up a hypothesis - Certain sounds of English will be difficult for the Ilocano to master. The new and reinterpreted categories will likely constitute the greatest number of difficulties,
2. Obtained samples of English speech of educated Ilocanos,
3. Had a native educated middle western-American speaker transcribe the same speeches on tape,

4. Analyzed the English speech of the Ilocanos using the native English speaker's transcription as the standard of comparison,
5. Transcribed the corpus in phonemic symbols,
6. Counted errors and tabulated them,
7. Used chi square and frequency distribution to test the hypothesis,
8. Ranked the difficult sounds according to percentage of difficulty.

Results of the test indicated the validity of the hypothesis, therefore the predictions were proven to be correct. There are three exceptions. Chi square distribution and frequency distribution count for /f/, /ow/ and /cy/ rejected the hypothesis. They proved to be quite easy for the Ilocano to produce. This could be accounted by the fact that previous training had made them more aware of these sounds. Also with regards to /f/ there are Spanish terms with this sound which the Ilocanos have adapted in their language, so it would be rather familiar to them to a certain extent.

In the frequency distribution to test for differences between two proportions of sounds, the ratio of agreement in the production of "difficult" sounds between standard speaker and the non-native speaker is very low, whereas in the "easy sounds," it is very high. This again proves that the predictions are correct, except in the three cases mentioned above.

The ranking in both groups indicates the following degrees of difficulty of the sounds:

In utterance initial position / p t θ ʃ ʃ ɔ / are most difficult, /v/ is very difficult, /f ow/ are least difficult. In utterance medial position, / c z θ ʃ ʃ ʒ æ ɔ / are most difficult, /ow/

is least difficult. In utterance final position /v z θ ð ʃ/ are most difficult, /f/ not quite as difficult, and /ow/ least difficult.

Points of differences between the two groups are: in utterance initial position, /k c æ/ are most difficult for Group I. Group II regards /ʒ/ as most difficult, /k æ/ as very difficult and /c j/ as difficult. In utterance medial position, /j v/ are regarded as very difficult by Group I, and /f/ as difficult. Group II regards /f/ as not quite difficult. In final position, Group I had /c/ as very difficult, /j/ not quite as difficult. Group II had /c j/ as most difficult.

There were no tests in both groups in all positions for /oy/. In final position, there were no figures for /ʒ æ ɔ/. In initial position, there were no figures in both groups for /ʒ/. This is because /ʒ æ ɔ/ do not occur in final position in English utterances. In utterance initial position /ʒ/ does not occur in English, except in loans like (Jeanne, Jacques).

The statistical data show that the predictions are correct except in three cases. These are /f/, /ow/ and /oy/. It indicates to the teacher the critical areas that would need more emphasis in her instruction; and to the curriculum maker, a guide for the construction of a course of study to meet the needs of the students. It also indicates to the linguist that his predictions arrived at through linguistic analysis can be tested.

The following pages will show the detailed chi square distribution test and the frequency distribution to test for differences between two proportions of sounds. This test involves the ratio of agreement between the difficult over the easy sounds from the point of view of the Iloko learner.

Chi Square Distribution
Group I

Sound	Location	df	Computed χ^2/df	Table- 5% Level of Significance χ^2/df	Decision for Hypothesis
p'	Initial	3	.03	2.60	Accept
t'	Initial	3	.12	2.60	Accept
k'	Initial	3	.30	2.60	Accept
c	Initial	1	0	3.84	Accept
j	Initial	2	0	3.00	Accept
θ	Initial	2	0	3.00	Accept
ð	Initial	3	.09	2.60	Accept
f	Initial	3	6.41	2.60	Reject
v	Initial	3	.42	2.60	Accept
ʒ	Initial	0	No test		
ʒ	Initial	0	No test		
ʒ	Initial	2	0	3.00	Accept
ɔ	Initial	3	.17	2.60	Accept
oy	Initial	0	No test		
ow	Initial	1	2.00	3.00	Accept
c	Medial	3	.17	2.60	Accept
j	Medial	3	.67	2.60	Accept
θ	Medial	0	No test		
ð	Medial	0	No test		
f	Medial	3	1.2	2.60	Accept
v	Medial	3	1.38	2.60	Accept
z	Medial	1	0	3.84	Accept
ʒ	Medial	1	.09	3.84	Accept

ʒ	Medial	0	No test		
ʒ	Medial	3	.02	2.60	Accept
ɔ	Medial	3	.056	2.60	Accept
oy	Medial	0	No test		
ow	Medial	3	.89	2.60	Accept
c	Final	2	.25	3.00	Accept
j	Final	1	1	3.84	Accept
θ	Final	0	No test		
ɔ	Final	0	No test		
f	Final	2	1.00	3.00	Accept
v	Final	3	0	2.60	Accept
z	Final	3	0	2.60	Accept
ʃ	Final	0	No test		
ʒ	Final	0	No test		
ʒ	Final	0	No test		
ɔ	Final	0	No test		
oy	Final	0	No test		
ow	Final	2	.5	3.00	Accept

Group II

p'	Initial	4	0	2.37	Accept
t'	Initial	5	0	2.21	Accept
k'	Initial	4	0	2.37	Accept
c	Initial	4	.50	2.60	Accept
j	Initial	3	.66	2.67	Accept
θ	Initial	2	1.25	3.00	Accept
ʃ	Initial	5	0	2.21	Accept

š	Initial	2	0	3.00	Accept
ž	Initial	0	No figures		
f	Initial	4	4.50	2.37	Reject
v	Initial	2	.50	3.00	Accept
ž	Initial	2	.66	3.00	Accept
š	Initial	1	.25	3.84	Accept
oy	Initial	0	No test		
ow	Initial	2	0	3.00	Accept
c	Medial	2	0	3.00	Accept
j	Medial	2	0	3.00	Accept
f	Medial	3	3.83	2.60	Reject
v	Medial	3	.22	2.60	Accept
z	Medial	5	0	2.21	Accept
θ	Medial	1	0	3.84	Accept
ž	Medial	4	0	2.37	Accept
š	Medial	4	0	2.37	Accept
ž	Medial	0	No test		
ž	Medial	5	.34	2.21	Accept
š	Medial	4	.12	2.37	Accept
oy	Medial	0	No test		
ow	Medial	3	4.50	2.60	Reject
c	Final	3	0	2.60	Accept
j	Final	1	0	3.84	Accept
f	Final	1	0	3.84	Accept
v	Final	5	.43	2.21	Accept
z	Final	5	.032	2.21	Accept

Θ	Final	1	0	3.84	Accept
ϣ	Final	2	0	3.00	Accept
ξ	Final	0	No Test		
ζ	Final	0	No figures		
ϗ	Final	0	No figures		
ϛ	Final	0	No figures		
oy	Final	0	No test		
ow	Final	2	4.7	3.00	Reject

TEST FOR DIFFERENCES BETWEEN TWO PROPORTIONS

Difficult - Formal - Group I - Initial																	
	p	t	k	c	j	f	v	z	θ	ʔ	ś	ž	æ	ɔ	oy	ow	Total
	14	45	24	4	3	22	8	0	3	80	1	0	3	12	0	4	
p	1																1
t		2															2
k			3														3
c				0													0
j					2												2
f						20											20
v							2										2
z								0									0
θ									0								0
ʔ										3							3
ś											0						0
ž												0					0
æ													0				0
ɔ														1			1
oy															0		0
ow																4	4
	14	45	24	4	3	22	8	0	3	80	1	0	3	12	0	4	Total

Filipino Speaker

Standard Speaker

Medial I														
	c	j	f	v	z	θ	ʔ	ś	ž	æ	ɔ	oy	ow	Total
	11	13	11	17	3	1	1	23	1	53	15	0	18	
c	1													1
j		3												3
f			5											5
v				5										5
z					0									0
θ						0								0
ʔ							0							0
ś								3						3
ž									1					1
æ										1				1
ɔ											1			1
oy												0		0
ow													18	18
	11	13	11	17	3	1	1	23	1	53	15	0	18	Total

Filipino Speaker

Standard Speaker

Agreement Ratio = .14
Initial

Agreement Ratio = .20
Medial

DIFFICULT SOUNDS

Difficult - Group I - Final

	c	j	f	v	z	θ	ð	ʃ	ʒ	ʒ	ɔ	oy	ow	Total
	3	2	3	33	58	1	0	0	0	0	0	0	9	
c	1													1
j		2												2
f			2											2
v				0										0
z					1									1
θ						0								0
ð							0							0
ʃ								0						0
ʒ									0					0
ʒ										0				0
ɔ											0			0
oy												0		0
ow													7	7
	3	2	3	33	58	1	0	0	0	0	0	0	9	Total

Filipino Speaker

Standard Speaker

Initial II

	p	t	k	c	j	f	v	z	θ	ð	s	z	ʒ	ɔ	oy	ow	Total
	20	76	15	5	4	26	4	0	10	81	11	1	7	6	1	13	
p	0																0
t		0															0
k			1														1
c				2													2
j					2												2
f						22											22
v							1										1
z								0									0
θ									0								0
ð										0							0
s											0						0
z												0					0
ʒ													2				2
ɔ														1			1
oy															1		1
ow																13	13
	20	76	15	5	4	26	4	0	10	81	11	1	7	6	1	13	Total

Filipino Speaker

Standard Speaker

Agreement Ratio = .12
Final I

Agreement Ratio = .19
Initial II

DIFFICULT SOUNDS

Difficult - Group II - Medial

	c	j	f	v	z	θ	ð	ś	ž	æ	ɔ	oy	ow	Total
	9	6	18	11	14	4	10	12	1	63	13	1	32	
c	0													0
j		0												0
f			13											13
v				2										2
z					0									0
θ						0								0
ð							0							0
ś								0						0
ž									0					0
æ										9				9
ɔ											2			2
oy												1		1
ow													21	21
	9	6	18	11	14	4	10	12	1	63	13	1	32	Total

Filipino Speaker

Standard Speaker

Final II

	c	j	f	v	z	θ	ð	ś	ž	æ	ɔ	oy	ow	Total
	15	4	5	31	86	3	5	1	0	0	0	1	18	
c	0													0
j		0												0
f			5											5
v				6										6
z					3									3
θ						0								0
ð							0							0
ś								0						0
ž									0					0
æ										0				0
ɔ											0			0
oy												1		1
ow													18	18
	15	4	5	31	86	3	5	1	0	0	0	1	18	Total

Filipino Speaker

Standard Speaker

Agreement Ratio = .24
Medial II

Agreement Ratio = .16
Final II

EASY SOUNDS

GROUP I - FORMAL - INITIAL POSITION

AGREEMENT RATIO = .94

	b	d	g	s	m	n	ŋ	l	r	w	y	h	i	e	ə	a	u	iy	ey	ay	aw	uw	ɔ	ɔ̃
b	28	14	9	40	22	21	0	13	11	22	2	19	64	29	6	33	0	1	2	6	8	0	128	
d		14																					14	
g			6																				6	
s				40																			40	
m					22																		22	
n						21																	21	
ŋ							0																0	
l								13															13	
r									8														8	
w										15													15	
y											1												1	
h												19											19	
i													55										55	
e														26									26	
ə															4								4	
a																33							33	
u																	0						0	
iy																		1					1	
ey																			2				2	
ay																				6			6	
aw																					8		8	
uw																						0	0	
Total	28	14	9	40	22	21	0	13	11	22	2	19	64	29	6	33	0	1	2	6	8	0	0	Total

Standard Speaker

Filipino Speaker

EASY SOUNDS

GROUP II -		FORMAL - MEDIAL POSITION										AGREEMENT RATIO = .98										Total					
		p	t	k	b	d	g	s	m	n	ŋ	l	r	w	y	h	i	e	ə	a	u	iy	ey	ay	uw	aw	
		17	50	39	5	26	6	46	17	90	4	48	75	18	6	6	104	47	115	49	17	11	26	20	3	4	15
p	15																										43
t		43																									35
k				35																							5
b					5																						22
d						22	6																				6
g								40																			40
s									17																		17
m										90																	90
n											4																4
ŋ												48															48
l													64														64
r														15													15
w															6												6
y																											6
h																											6
i																	94										94
e																		47									47
ə																			100								100
a																				49							49
u																					13						13
iy																						0					0
ey																							26				26
ay																								20			20
uw																									2		2
aw																										4	4
	17	50	39	5	26	6	46	17	90	4	48	75	18	6	6	6	104	47	115	49	17	11	26	20	3	4	Total

Standard Speaker

Filipino Speaker

EASY SOUNDS

GROUP II - INFORMAL - INITIAL POSITION														JARGEMENT RATIO = .94									
	b	d	g	s	m	n	ŋ	l	r	w	y	h	i	e	ə	a	u	iy	ey	av	uw	aw	ot
	34	27	16	42	37	34	0	23	5	25	37	40	50	30	30	38	0	1	2	23	0	6	34
b	34																						34
d		27																					27
g			16																				16
s				42																			42
m					37																		37
n						34																	34
ŋ						0																	0
l							23																23
r								4															4
w										25													25
y											37												37
h												40											40
i													38										38
e														30									30
ə															30								30
a																38							38
u																	0						0
iy																		0					0
ey																			2				2
av																				23			23
uw																					0		0
aw																						6	6
	34	27	16	42	37	34	0	23	5	25	37	40	50	30	30	38	0	1	2	23	0	6	Total

Standard Speaker

EASY SOUNDS

GROUP II - INFORMAL - EASY - MEDIAL POSITION

AGREEMENT RATIO = .90

Total

	p	t	k	b	d	g	s	m	n	ŋ	l	r	w	y	h	i	e	ə	a	u	iy	ey	av	uw	aw	Total
p	10	38	21	13	20	7	31	34	102	4	40	54	12	8	1	117	26	45	124	82	28	22	45	8	6	1
t	8	33																								8
k			20																							33
b				13																						20
d					20																					13
g						7																				7
s							31																			31
m								34																		34
n									102																	102
ŋ										4																4
l											40															40
r												50														50
w													12	8												12
y																										8
h															1											1
i																101	19									101
e																		45								45
ə																			102							102
a																				82						82
u																					28					28
iy																										22
ey																						22				22
av																							45			45
uw																								8		8
aw																								6		6
Total	10	38	21	13	20	7	31	34	102	4	40	54	12	8	1	117	26	45	124	82	28	22	45	8	6	1

Filipino Speaker

Standard Speaker

RANKING

0 - 19 least difficult
 20 - 39 not quite as difficult
 40 - 59 difficult
 60 - 79 very difficult
 80 - 100 most difficult

Group I		
Sound	Location	Percentage of difficulty
p'	Initial	93
t'	Initial	96
k'	Initial	92
c	Initial	100
j	Initial	33
f	Initial	9
v	Initial	75
z	Initial	No test
θ	Initial	100
ð	Initial	96
ʃ	Initial	100
ʒ	Initial	No test
œ	Initial	100
ɔ	Initial	92
oy	Initial	No test
ow	Initial	19
c	Medial	90
j	Medial	77
f	Medial	55
v	Medial	70
z	Medial	100

Sound	Location	Percentage of difficulty
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θ	Medial	100
ð	Medial	100
ʃ	Medial	87
ʒ	Medial	100
ʒ	Medial	98
ɔ	Medial	93
oy	Medial	No test
ow	Medial	11
c	Final	66
j	Final	21
f	Final	33
v	Final	100
z	Final	98
θ	Final	100
ð	Final	No test
ʃ	Final	No test
ʒ	Final	No test
ʒ	Final	No test
ʒ	Final	No test
ɔ	Final	No test
oy	Final	No test
ow	Final	22

Group II

p'	Initial	100
t'	Initial	100
k'	Initial	73
c	Initial	40

Sound	Location	Percentage of Difficulty
j	Initial	50
f	Initial	15
v	Initial	75
z	Initial	No test
θ	Initial	100
ʃ	Initial	100
ʒ	Initial	100
ʒ	Initial	100
ʃ	Initial	71
ɔ	Initial	83
oy	Initial	No test
ow	Initial	0
c	Medial	100
j	Medial	100
f	Medial	38
v	Medial	81
z	Medial	100
θ	Medial	100
ʃ	Medial	100
ʒ	Medial	100
ʒ	Medial	100
ʃ	Medial	86
ɔ	Medial	85
oy	Medial	No test
ow	Medial	66

Sound	Location	Percentage of Difficulty
c	Final	100
j	Final	100
f	Final	0
v	Final	86
z	Final	96
θ	Final	100
ð	Final	100
ʃ	Final	100
ʒ	Final	No test
ʒ	Final	No test
ɔ	Final	No test
oy	Final	No test
ow	Final	22

CHAPTER V

SUMMARY, IMPLICATIONS, CONCLUSIONS OBSERVATIONS

Summary and Implications

This study was made to determine the phonological problems involved in improving the oral English of an Iloko speaker. The northern variety (Batac-Laoag) was analyzed to determine the elements that constitute its sound system. An analysis of middle western American English was obtained. Both phonologies were contrasted item by item to determine which sounds would be more or less similar in articulation, and the sounds which would be more or less different. All the sounds not present in Iloko but present in English were predicted to be difficult for the Ilocano to master. All the sounds which tended to be similar in point of articulation were regarded as easy for the Iloko speaker.

To verify the predictions, samples of taped English speech of educated Ilocanos were obtained. These samples were analyzed by two groups of native speakers of English. Two speech situations from the taped corpus were randomly selected for the analysts. Group I was the formal situation, (scripts were given to the subjects a few minutes before recording them) and there were four speakers. Each one read a different part. Group II was the informal situation. The subjects were not given any scripts, they were asked to talk about anything, but they all knew that they were to be recorded. The analysts for Group I were two professional speech correctionists and a general speech and language teacher. Group II, with six speakers had five analysts. They were advanced speech correction majors who had a grade of

"B"or over in their phonetics course. Both groups showed general agreement on discrimination of errors. This may indicate that the errors were "clear-cut" and that they were easy to discriminate. The analysts had no knowledge of the predictions. They were asked to listen to the utterances of the Ilocanos and if they heard any deviations from standard American speech they would indicate it above the sound on the script given them. All the analysts were middle-western educated American speakers. Their standard of speech was their own speech or the speech of one whom they considered to represent a typical educated middle-westerner.

The results of the analysis show that the type of errors were mostly on substitutions and distortions. There was a high frequency of error on substitutions.

Statistical methods were used to interpret the data. The chi square and group frequency distributions were used to test the validity of the hypothesis, which was stated, that there are certain sounds in English the Iloko speaker will find difficult to master. These are the sounds not found in his own phonological system.

Of the fifteen sounds tested on the basis of difficulty, three sounds disproved the hypothesis. These were /f/, /ow/ and /oy/. Twelve out of the fifteen new categories for the Ilocano were proven to be difficult.

The significance of the findings indicate that in teaching speech improvement to educated Ilocanos, there should be more emphasis on the critical sounds, and less time on the easy sounds. For the curriculum maker, he should make the findings his guide in preparing new materials

for a revised course of study. It also suggests new methods in teaching English to Iloko speakers.

Furthermore, the findings demonstrate a need for a more efficient system of learning for the Ilocano and a more efficient way of instruction for the teacher. Such a development might result in:

1. closer approximation of the standard speech,
2. more intelligible English,
3. less difficulty in communication between the foreign and native speakers,
4. greater self-gratification,
5. more prestige.

Observations and Conclusions

Within the limits of this study, the following conclusions seem to be warranted:

1. That there are certain sounds of English an Iloko speaker will find difficult to master,
2. That the difficult sounds are those not found in his own sound system,
3. That the Ilocano makes more errors in substitution than any other type,
4. That when the Ilocano makes substitutions, he tends to substitute the Iloko sound closest in articulation to the English sound,
5. That the Ilocano makes as many errors in articulation of vowels as in consonants,
6. That the Ilocano tends to transfer the rhythm of Iloko into English speech, and although there is a schwa /ə/ in Batac Iloko, he does not use it as much in his English speech. The vowels receive as much time in production regardless of their stress,

7. That the sentence stress of Iloko is predictable, English, unpredictable,
8. That the Iloko speaker is influenced by the spelling of an English word so that he articulates the sound that the orthographic symbol represents in his native tongue.
9. That /f/, /ow/, /oy/, although predicted to be difficult turned out to be easy. Some possible explanations for this occurrence are: there are lexical items in Iloko with the /f/ sound that have been borrowed from Spanish and which the educated Ilocano has adopted in his speech, hence the sound is familiar to him, and he has been conditioned to pronounce the sound correctly; /ow/ and /oy/ have no phonemic equivalents in Iloko. As new sounds they are relatively easier for the Iloko to articulate because there has not been an opportunity to learn a distortion of the sound which subsequently needs correction.

APPENDIX

Formal Conversation #2A

When I graduated from college I was told that I have gained the required competence for a most exacting profession. Is this true, .. I begin to wonder.... It might have been true in nineteen thirty. It cannot be true now ..

As teachers, we serve human society. The realities of this society are fluid. The social structure changes. Certainly, the competence you gained in nineteen thirty may not bear you in good stead today. Is my answer correct?

And, .. the present social makeup has many ills, Foremost among this is in our economic system.. In some quarters it is alleged that whatever is the ill, our educational effort has the blame. The system is not geared to national economic development.. And many people now advocate a complete overhauling of the system.

The second social ill is indicated as juvenile delinquency.

Of course we cannot deny that the biggest cancer in the social order is the deterioration of public morality.

All these .. people ascribe to the defects or inadequacy of our school system.

I tell you that these complaints have foundation in fact. For if the youth of each succeeding generation were really taught adequately, there is no reason why society should not become better and better as the years go by.

But is not Philippine society getting better and better? The progressive countries, so called .. are never free from the social ills. Does it mean that their educational systems are also a dismal failure? Perhaps the teachers everywhere have been remiss in their work.

It may not be the sole failure of the educational system. We ought to consider also that the school is only one of the agencies for the maintenance and advancement of society.

I maintain that the ills of society today have grown because people fail to give due regard for the basic essentials and the enduring values in life.

And modern living has become so complicated that things which were non-essential yesterday have become necessities today. The plain simple mode of living has become out-moded.

Today, everyone desires to ride in a big car, and to live in a mansion, and therefore ... seeks the means to be able to own these things ...

You say a mouthful.... very often, . too, . one does not care how he gets what he wants, so long as he gets it. This pattern breeds the seed of social disorder. And is it not also true that for every task today, time is of the essence ? Many people have a maddening obsession for speed... They are always in a hurry, no matter whether they have plenty of time or not.

Hey, .. and too many of us do not seem to know where we are going. In fact, so many realize too late that they are going nowhere ! Well ! ... everybody wants to go ahead of the other. Nobody wants to be behind anyone else..

And this includes even the activities where intelligent leadership is necessary. Everyone wants to be a leader forgetting that there can be no leaders where there are no followers.

That's it. Intelligent followership is essential to effective leadership ..

It is clear, therefore, that our social structure today calls for a superior type of teacher whose competence is not only in the mechanics of teaching the basic learnings. Yes, ..we need teachers who recognize the basic needs of living ... whose sense of values is not blurred by the trappings of excesses of modern life, and who will make an effort to temper or rationalize such excesses. Ehem, we are those teachers, I venture to guess.

We have big hearts, and our daily concern is not only for the children under our charge. We serve even at sacrifice the welfare of our communities.

Who will deny the fact that we are dedicated teachers of wide vision, whose interests encompass not only the community but the nation and the rest of the world as well.

Additional comments, observations and corrections about the renditions. Specifically, the rhythm pattern used - syllable timed or stressed timed - were syllables given equal emphasis or were their syllables that were given more emphasis on account of the stress of the word or the sentence? Also observations on the intonation patterns. Were they natural (acceptable) or unnatural (unacceptable) at the end of statements?

Directions for analysis:

1. Encircle the error
2. Write the substitution or distortion made by the student above the error
3. Write also the correct form of the distorted sound after the error (both in phonetics)
4. If there are any added sounds, please insert such between the word spaces or letter spaces as provided for
5. Please indicate syllables incorrectly stressed by student by ' , and improper division of words into thought groups by / .

For example: ... th e/^{i-c} r e s t o f th e w o r l d a s^{s-2} w e l l ...

6. If intonation pattern of the sentence is unacceptable, please indicate with a U - at the end of the statement.

INFORMAL CONVERSATION # 3

Imagine, to see you all here now is a lift to my feelings because I had not seen you for a long time. We are all here in our respective jobs, the last time we met was in Batac, but when we go to our work we are all separated and now we are all here gathered. Let us talk about ourselves. I'm so eager to know what you are doing in your own lines. Wont you begin- Lilia?

I teach home economics, sometimes I also teach general science, sometimes I teach physical education and thats why sometimes I sometimes get peeved because they give me so much work - that is out of my line, it gets boring.

Are you given extra pay for that, Lilia?

No, I am not given -- as a matter of fact, I think there is discrimination against young teachers -- I think it is not fair giving me too much work and the old old ones going home so early and yet they recieve higher pay - don't you notice that?

I do --

Then what do you plan to do? You don't like to teach anymore?

I'd like to teach because I like teaching but I wouldn't like to go back to that school. I'd rather teach somewhere else - so now, you know what I'm doing? I took a study leave, and I am changing my major from home economics to psychology so they won't give me diffuse obligations.

Really teaching is such a boring thing - but we have to plug on because we love teaching - don't we all? Now in Manila the students are -- well, you will be surprised with their indifference to their studies. When I was teaching in Batac, I used to be very much pleased with my students because even a sixth graders, they could write long nice themes. Well, didn't you Navora? Doctor now?

Well it has to be a long time really. Imagine when I was only twelve years old when I was under you and it has been a long time already.

And now, you are a physician.

You make me sound so ancient -- But anyway I'm trying to look young so that I won't feel that age is cheating me now.

Oh, you still look very young...

E s p e c i a l l y , e s p e c i a l l y , y o u a r e i n t h e c i t y
-- i f y o u a r e i n t h e c i t y t h e r e i s m u c h i n f l u -
e n c e o n . . . o n m o d e r n . . . o n m o d e r n m e t h o d s o f
g e t t i n g b e a u t i f u l , . . . b e a u t y p a r l o r s b o u n d
i n t h e c i t y m o r e - t h a n i n t h e p r o v i n c e s a n d
y o u c a n g o i n a n d o u t o f t h e b e a u t y p a r l o r s
a n d m a k e y o u r s e l f y o u n g .

W h a t a b o u t t h e y o u n g p h a r m a c i s t ? W o n ' t y o u
t e l l u s a b o u t y o u r w o r k ?

O h , I a m a p h a r m a c i s t b u t a c t u a l l y I w o r k
a s a n a n a l y s t i n t h e l a b o r a t o r y . . . W e l l i t s
r a t h e r h a r d b e c a u s e m o s t o f t h e t i m e w e h a v e
t o s t a n d u p , a n d -- b u t t h e c a t c h t h e r e i s ,
t h e w o r k i s v e r y i n t e r e s t i n g -- b o t h a n a l y z -
i n g t h e s e v i t a m i n s a n d d i f f e r e n t m i n e r a l s .
D o n ' t y o u f i n d i t b o r i n g ?

O h n o b e c a u s e w e h a v e v a r i e d m a t e r i a l s a n d
--- u h I m e a n v a r i e d p r o d u c t s a n d e a c h p r o d u c t
c o n t a i n d i f f e r e n t c o n s t i t u e n t s a n d w e l l - -
o u r b o s s s e e s t o i t t h a t w e d o n ' t g e t t h e
s a m e a s s i g n m e n t s e v e r y d a y .

W e l l - h e - h e r e a l l y h a s f o r e s i g h t

B u t t h e s e c o n s t i t u e n t s a n d w h a t t h e t h i n g s
y o u p o u r d o n ' t y o u f e e l a s i f y o u a r e m i s s i n g
s o m e t h i n g i n y o u r l i f e ? Y o u a r e y o u n g a n d
b e a u t i f u l a n d t o b e d e a l i n g w i t h a l l t h e

things, is to me, --not very nice on a young woman like you...

Well - maybe you are insinuating she will marry soon or she might just want to take a boyfriend...

She has.....

May I know the name?

There is nobody, I know....

Eh -- how about the thorn among the roses, what do you have to say ---

Come on doctor, unfold...

I just keep on listening...

You are a good listener

Well -- and what about your heart--- please give us a hint of your heartbeat....

Who is the current **P**epito?

Well, maybe one of them is my old You know her very well....

Old - -old what?

Mother....

Dear old **P**it, such a nice nice thought.....

That calls for something.....

Yes, maybe a terno.. or a pair of nice shoes, Edwardson

Edwardson

Where do you practice your profession, doctor?

I usually spend most of my time at U S T

ma'am... and well -- life of a doctor is a busy life -- you meet all kinds of people from all walks of life with troubles or no troubles....

What do you do with hypochondriacs?

Well send them to another hospitals...

That's clever of you....

We send them to the mental hospitals...

Suppose they resist going to mental hospitals?

Force them of course...

Tie them in the ambulance....

If they are hypochondriacs, they act normally, don't they?

No, they don't...

Don't you not have any dream of going to the states as an exchange scholar, both of you...

Well, should we direct that to the doctora?

Come on doctora...

If we have the chance, ... why not? Pepito and I may go together.

There is an examination now that physicians have to pass because the exchange program has lapsed....

It's only from nineteen forty nine to nineteen sixty It's until nineteen sixty....
.... nineteen sixty onward, will have to take an exam.

For those who go to the states?

Physicians and nurses?

Physicians only ...

It's getting tougher now.... And Pepito may be afraid.

No, .. don't, no, he won't...

But Lilia, may I know something? Very honest from you?

I'll try my best to be honest ...

Don't you feel like going to the states also and spend your time there take your doctorate perhaps?

Well ... I have to finish my masters degree first ... Before I take my doctorate... I'm starting it at the UP right now....

Oh, surely she will go --- I understand she has her boyfriend there...

No, ... I don't have any boyfriend ... he's not a boyfriend... He's not really a boyfriend -- it's a --- well it's an acquaintance.... Where is he now?

He's in Ohio Don't tell us .. he might be something dear to your heart --- and, and ... well we hope that things will turn out to be good -- he will come back to the Philippines and then....

Wedding bells ----- Wedding bells

Wedding bells -- that's too far far ahead ...

I don't think I am the marrying kind ... and
neither is he I suppose Oh you mean man
hater ...?

No, I'm not a man hater, ... only ... I'm afraid
of -- well ---- responsibilities..... I've seen
too many marriages Break ---- Break?

No, not necessarily break up, but there
are frictions and you know

But love when there are frictions will be -
come better and you know when it is such a
nice nice thing without the conflicts, it
would not be colorful at all, Lilia

I suppose so ----- but you know -- I am a coward
too...

Don't be too pessimistic about things... You
know you are sweet, you are lovely and loving
and you will make every husband a good wife.....

Well I hope I hope somebody hears that...

In fact she is broadcasting... so he may
hear... it on the other side of the world....

Where is he, .. anyway ... He's in Ohio....

No Oh ... in the deepest chamber of your
heart...

You are getting to be Balagtas ...

And Hector, .. is there any other one next
to your mama ..? Well, .. there are many of

them ma'am... And I find trouble choosing one...
 that's why I prefer to stick to the old...
 And you are young....
 Do not call her old... she might not give you
 the prize... she ----- any woman would not like
 to be called old. She's young and sweet and
 always loving... You are only as old as you
 feel or as young as you feel.... That's
 right

(Additional corrections and comments) (Observations on the rendition)

Directions: Encircle the error, Write the substitution or distortion in phonetics above the error, and the correct form after the error also in phonetics; If there are any added sounds, please insert it between the word spaces or if within the word, insert between letters in the spaces provided for.

Please indicate syllables incorrectly stressed by student by /, and improper division of words into juncture groups by /.

I. e.: ^{d.ʒ i-ə} the influence upon/ them...

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