TEACHING PHONETICS FOR LINGUISTIC FIELD WORK

KATHRYN C. KELLER

SUMMER INSTITUTE OF LINGUISTICS
ARIZONA STATE UNIVERSITY
APARTADO 22067, 14000 MEXICO, D.F., MEXICO

ABSTRACT

This paper reports on a successful training program for linguistic field workers, for learning to transcribe and speak unwritten languages. The emphasis is not only on transcription, analysis and theory, but also on individual production of the various sounds that the human vocal tract is capable of producing, which may not be encountered in languages. Emphasis is placed also on controlling utterances with proper pitch patterns, stress, and rhythm.

INTRODUCTION

Beginning phonetics courses are offered by the Summer Institute of Linguistics (SIL) at the University of Oklahoma, North Dakota, Oregon, and Texas at Arlington, as well as in England, France, Germany, Australia, Canada, New Zealand and in other parts of the world. Although the courses in the different places vary in detail, the overall structuring and methods are similar. I am reporting from my own particular viewpoint and experience.

Some aspects of phonetics have been reported on in "Teaching Practical Phonetics: A Guide for Field Work in Unwritten Minorities" [3], Eunice V. Pike, "A Test for Predicting Performance of Field Workers: An Approach to Preparation for the class session" [19], Ladefoged [12], Smalley [18], and others. Feedback from field workers is an additional source of information about the specialties of other SIL staff members. For instance, Kenneth Gregerson lectured on tongue root function in languages of Southeast Asia. The students have as a textbook "Dictionary Exercises in Phonetics" by Eunice V. Pike [10]. This is supplemented by assigned readings in phonetic theory. The SIL courses in the different locations differ as to what book is used as a text.

METHODS AND TECHNIQUES

In each drill session a specific sound type is presented. The presentation has three elements: theory, production of the sounds, and ear training and transcription. Theory and practice go hand in hand. Review, especially of the sounds studied at the last class hour, is included to help fix the sounds in the minds of the students.

Theory

During the nine-week time span of the course we cover quite thoroughly the range of basic points of reference in sound. In addition to the theory presented in the lectures, background theory including the physiology of speech production is presented in the drill sessions as each new type of sound is taught. The features which identify a sound and make it contrast with another are emphasized. Students are required to be able to illustrate these features by making face diagrams of the sounds and by knowing the technical name for each sound. Dynamic diagrams of strings of sounds, are presented.

Some films are shown. One of the most useful for beginners is "Velopharyngeal Function in Normal Speakers", produced by Kenneth Moll (distributed by Bureau of Audio-Visual Instruction, State University of Iowa), which presents the action of the velum and the coordinated movements of the organs of speech.

For other films which we have used from time to time are Keller Experimental Articulatory Phonetics [6]. I am indebted to the University of Edinburgh for the stimulus for the use of films in teaching phonetics, as well as for a broader perspective in phonetics and for a background in experimental articulatory phonetics. The videotape of K.L. Pike on phonetics [16] is invaluable in giving the idea as a range of human speech sounds, and techniques for flexibility. Also illustrated in the videotape are languages with dynamic phonetic features very different from those of English.

Production of Speech Sounds

There are two basic problems faced by the student in learning to speak and produce sounds. The first is to overcome the psychological barrier to making new and different sounds. The second is to form the correct vocal tract configuration which is difficult to do and of which the student is not even aware.

In the very beginning of the course we try to deal with the psychological blocks. The small classes and an atmosphere of informality help put the students at their ease and make it possible student-teacher interaction. In teaching the production of specific new sounds, we have the class repeat in unison, mimicking the teacher, before having each student in turn to produce the sound. This gives students a chance to try making the sound before being called on individually. Learning to laugh at our mistakes in the learning process.

During the group mimicry, the teacher listens critically, commending good performance or making suggestions for improvement. By the end of the class the student knows whether he can make the sounds satisfactorily, or how to go about working on their production.

To overcome interference from the mother tongue the student needs to understand the differences between the new sounds and those of his mother tongue, and be exposed to extensive drill. In the context of SIL, we have learned that we need to give hands-on time to students to help them overcome ingrained mother-tongue influences and help them master sounds maximally different from sounds in their first language. Students often have problems with ejectives and implosives, for example, and in controlling vowel glides. They also may have trouble with contrast between different consonants when they occur in positions different from where they occur in their original language. English speakers have to learn to produce a velar nasal initially in an uninnate even though they can do it easily when it occurs syllable final.

For the mastery of individual sounds, we give in-class help individually to the students as well as collectively in the group mimicry. We emphasize learning by mimicry. If that fails, we give suggestions on how the student could produce the sound, going from the known to the unknown. Simple nontechnical hints often work. To help the student produce a bilabial fricative, for instance, in contrast to the labiodental fricative be accustomed to making, we get results by saying, "Gir' and blow the hair off your forehead." Many phonetic drills have been developed for such situations from actual languages, covering the sounds currently required to be able to illustrate these features by making face diagrams of the sounds and by knowing the technical name for each sound. Dynamic diagrams of strings of sounds, are presented.

INTRODUCTION

Fieldwork in unwritten minority languages and for being able to speak those languages with a pedagogical approach has benefited from feedback from these village scholars. We have gotten hints on how to proceed to master the sound.

For practicing sounds in context, frame drills of advanced combinations are assigned from time to time. Also a list of words from actual languages, covering the sounds currently being studied, is given to the students each week.

In teaching students to hear and control intonation, rhythm and stress, we begin with exercises in English intonation. The students are given a selection with the intonation, stresses and pauses marked, and are asked reading it until they can read it as marked. Meanings conveyed by different contours of intonation, and what he does in his own language, can he more readily recognize patterns in another language. One lecture is devoted to what we term "Written Phonetic Analysis," in which students are made aware of overall phonetic features which may color a language and make it...
sound different from another or which may be contextually different within a single language. Examples collected from field experience are presented. Required reading in the article “Articulatory Settings” by Beatrice Honikman [4], which emphasizes the importance of “shifting gears” in going from the mother tongue to a new language.

For the mastery of longer utterances we have found build-up drills helpful. Another valuable technique is tracking, referred to as “shallowing” by L.A. Chistovich in “Relation between Speech Production and Speech Perception” [2] at the Tenth International Congress of Phonetic Sciences. This rapid imitation of speech, following along with a speaker a half syllable behind, can be done silently or out loud and helps a student get into the rhythm, pitch patterns, and speed of the target language.

To give the students practice in the mastery of longer utterances, conversations in a variety of languages have been recorded on tape. The students are assigned a different language each week. They listen over and over to the phrases, mimicking until they can control the intonation, speed, and rhythm. To facilitate the learning, each phrase of the conversation is repeated on the tape about five times, with a pause for mimicry between utterances; then the conversations as a whole are given. At the end of the week the students are tested on their mastery of the conversation. We have used such diverse languages as Chinese, Urdu (Philippines), Turkish, Basque, Toomac (Mexico), Igbo (Africa).

Ear Training and Transcription

Drills are those from ‘Diction Exercises in Phonetics’ by Eunice Pike [10], with additional language materials which we have collected from field members down through the years.

For each sound type, we begin with oral ear training, contrasting the new sound with a similar known sound with which the student would be most likely to confuse it. Transcription practice begins with single-syllable, differential drills, contrasting the sounds just worked on orally. When the students can distinguish the sounds in minimal contrast, harder drills are given. Recognition drills are made up of nonsense words containing the new sounds along with sounds studied to date. Each lesson also contains drills of actual language words. The drills are dictated by the teacher for transcription, then students are asked to read back the words. Dictation tests are given about once a week.

Tapes of controlled material by native speakers illustrating specific sound contrasts are available for extra ear training. These include Amharic, Finnish, Gujarati, Zulu.

APPLICATION OF THE TRAINING

The last segment of the course consists of an eight-day assimilation session, in which material is elicited in context, learned and practiced as a conversation. Tangible objects to work with help make the situations around which the conversations are built. Writing is discouraged, but the phrases are taped for later minicourse and practice.

Each student has a period in which he can elicit material for analysis and another period in which he is an observer when another student is eliciting. The students are to learn whatever they can about the sound system of the language from their own elicited data. They write this up for their phonology course and look for grammatical patterns for their grammar course.

The phonetics requirements are twofold. The students are to construct drills which will help them in pronunciation or which will help to sharpen their hearing. They are also to learn enough of the language to be able to carry on a five-minute conversation with the native speaker from materials learned during the assimilation periods and practiced in their eliciting sessions. On the last day, each student is asked to converse with the language speaker, using props but nothing written.

SUMMARY

By small classes, individual help, extensive drill, and carefully monitored student progress we try to give students an understanding of the whole gamut of possible speech sounds, help them to make and recognize these sounds, and help them to have flexibility to reach shades of sounds not specifically taught in class that they might come across in a language.

REFERENCES