ABSTRACT

Foreign language teaching especially in classroom conditions can be effective if its methodology is based on solid scientific grounds. Practical needs of teaching languages have given rise to theoretical contrastive study of languages that come into contact. Experimental investigation of the development of phonetic characteristics of bilinguals in L₂ makes a significant contribution into the theory of contrastive studies as well as into the applied aspects of this problem.

It is evident that contrastive studies of languages came into being and developed in many countries of the world as a reaction to practical needs of teaching foreign languages (L₁). Contrastive analysis of two languages with the aim to predict pronunciation errors in L₂ are defined as Applied Contrastive Studies. Theoretical Contrastive Studies involve various methods and models of contrastive analysis and is a part of typological linguistics.

The aims of these two studies are so interpenetrated with each other and are so interdependent that it is difficult to find the borderline between them. Any contrastive study is supposed to be theoretical. Its theoretical status is high provided the results of such studies are of some practical use. At the same time the discussion and linguistic analysis of pronunciation errors of bilinguals in L₂ belong to the sphere of theoretical linguistics. So, we shall use the term "Contrastive Phonetics" (Linguistics) only. The data obtained form the foundation of the theory of interference. The latter is capable of explaining the nature of each error. In this paper an attempt is made to suggest the principles and models of the wider application of contrastive studies in linguistics.

The necessity to work out the principles of contrastive studies relevant both for theoretical and particularly for practical purposes of teaching L₂ made us carry out a multi-step experiment. The procedure of the experiment is the following. It consisted of five steps and lasted for five years. The subjects (n=45) were
the students of English at the Teachers Training Institute of Foreign Languages in Alma-Ata, USSR. Their native language is Kazakh. When the experiment began (step 1) the subjects were at the age of 17. Recording of the test material took place in a special studio at the end of the academic year during five years. Step 1 corresponds to the end of the first year of learning English; Step 2-to the second year; Step 3-to the third year; Step 4-to the fourth year; Step 5-to the fifth year.

The test experimental material was compiled on the basis of the data of the contrastive study of the phonetic systems of English and Kazakh. It consisted of English isolated words, sentences of different communicative types, texts of various functional styles.

The staff of subjects and test material remained unchanged throughout all the five steps of the experiment. In order to obtain the most natural and objective data no correction of the subjects' errors in the process of recording was allowed. The same test experimental material was recorded by native speakers of English (n=4).

The recordings of all subjects of each step were listened and transcribed by non-native speakers of English—teachers of English Phonetics (n=5).

Slightly shortened version of the test material was listened and analysed by native speakers of English—non-linguists (n=10). and, finally, rather short test recording was listened and analysed by a native speaker of English—professor of English Phonetics.

For the acoustical experiment still shorter test material was selected. The experiment meant to study such prosodic properties as duration, intensity, fundamental frequency. A special study of spectral characteristics of English vowels was carried out.

Procedure and Results of Contrastive Phonetic Study of the Development of the English Speech of Kazakh-English bilinguals

1. Contrastive study of the phonetic systems of English and Kazakh, the languages that are in contact in classroom conditions.

The results of the contrastive study are used in two ways: a) practical—the list of potential errors is the starting point for compiling teaching material for the incipient bilinguals, in our case, for the students of the first year; b) theoretical—the list of potential errors is the starting point for compiling test language material for the experimental investigation of the development of phonetics of the bilinguals' English speech.

2. Auding Analysis of the recordings of each step of the experiment helps us to obtain the data of real (actual) pronunciation errors (or real interference). Contrastive study of the data of each step and the data of the potential errors are valid in two ways:

a) practical—the results are taken into account when compiling teaching material for the second, third, fourth, fifth year students; b) theoretical—linguistic.
analysis of the data obtained makes a considerable contribution into the theory of interference. 
Phonetic errors are classified and tabulated according to the types of interference mistakes (U. Weinreich): underdifferentiation, overdifferentiation, reinterpretation, substitution, plus segmentation, minus-segmentation. 
A certain amount of pronunciation errors are beyond these types, forming specific groups of errors. Types of errors by U. Weinreich are rather easily classified in Steps 1, 2, 3. At the advanced steps no definite types are to be found.

3. Contrastive study of the data of auditory analysis of all five steps of the experiment and the data of auditory analysis of native speakers' recordings revealed the points of coincidence and the points which to this or that extent differentiate the pronunciation of the subjects from that of the native speakers.

a) Practical application of the results of this study is in supplying the teachers with recommendations on how to prevent pronunciation errors of bilinguals depending on the stage of acquiring English.

b) Theoretical-contrastive description of bilinguals' errors and the model pronunciation of the native speakers contributed into typology of errors, problem of the development of phonetic interference (segmental and prosodic) throughout the five steps of the experiment.

4. Contrastive study of the data of the two neigh-
bouring steps of the experiment which made it possible to form a general view of the phonetic characteristics of the English speech of the bilinguals in the process of acquiring L2.

6. Contrastive study of the data of the acoustic experiment and the data of the auditory experiment.

7. Contrastive phonetic study ended with the evaluation of the recordings of each step by the native speakers of English (nonlinguists and linguists).

CONCLUSIONS

The procedure of contrastive study presented in this paper is worth accepting because:

1. Thorough contrastive study of two languages in contact is necessary for linguistics in general, and in particular—it supplies the teaching process with the proper language material specially processed and selected for this very stage of teaching L2, for this very group of L2 learners in classroom conditions. The data obtained stimulate preparation of textbooks, manuals, tapes.

2. The term "contrastive phonetics" may have a wider sphere of application. The principles of contrastive analysis presented here enrich and develop the theory of language contact, the theory of interference, contrastive linguistics and typological studies.

3. The procedure of contrastive analysis presented in this paper can be used and development further on the material of other languages in contact.