TOWARDS THE PHONOLOGICAL MODEL FOR CONTRASTIVE ANALYSIS

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ABSTRACT

Two so far contradictory approaches to contrastive analysis of phonetic phenomena, viz. structural (taxonomic) phonemics and generative (derivational) phonology, in fact can be regarded as complementary in the global phonological analysis used in the comparison of two different languages.

INTRODUCTION

Contrastive analysis, sometimes called, perhaps more appropriately, confrontative, in my opinion, does not consist in mere juxtaposition of two languages. Its aim should be defined rather as looking for equivalence between linguistic phenomena of languages under comparison. With that in mind I will consider the two phonological models mentioned above with respect to their usefulness for such an analysis.

Generative phonologists who refuse to regard phonetic level as relevant in the explanation of derivational processes (rules) transforming abstract underlying (phonological) representation directly into surface phonetic representation, insist that all differences between compared languages can be accounted for by phonological rules /1/. They seldom suggest a comparison of the phonetic systematic level /2/, which in such a case, however, does not have a definite theoretic status, rather it is viewed as a final result of derivation. On the other hand, different structural approaches assert in general that a comparison of the phonetic shapes of two languages, especially for educational purposes, should be confined to relevant phonemic features extracted by any kind of distributional analysis /3/. Sometimes they insist on taking into account the phonetic reality of sounds as a necessary component in a contrastive phonological analysis /4/.

There are both theoretical and empirical arguments for the two approaches apart from contrastive linguistics. Let us, however, confine ourselves only to argumentation taken from the latter in evaluating below the usefulness of each of the models in contrastive phonology.

UNSTRESSED VOWELS

As regards the problem of unstressed vowels, Polish and Russian differ from the point of view of both models; the differences, however, are not of the same kind and value. Generative phonology seems to expose a more essential difference, since it sees the difference in both directions of equivalence between the languages; either from Russian to Polish or from Polish to Russian. This is because generative phonology claims that Polish lacks rules of so-called "unstressed vowel reduction" which is inseparable part of the Russian phonology.

From the point of view of many models of structural phonemics only the direction
from Russian to Polish seems to be unsatisfactory. It is because, depending on interpretation, both languages can be considered as consisting of the same pattern of 5 or 6 vowels, which can be viewed as interchanges in the course of using the opposite language provided that we do not tend to eliminate “foreign accent”, but only to confine ourselves to minimal orthographic correctness. In spite of that in the direction at issue the difference ensues from distribution of the vowels, since in unstressed syllables Russian does not use [a] and sometimes [a] after non-palatalized sounds, and [a], [o], [e] after palatalized ones, distinguishing only at least 3 vowels in the former position and 2 in the latter. This results in undifferentiation when Russians use Polish, since in the latter all vowels are used in unstressed position as well.

The opposite direction of equivalence does not see to cause any phonetic difficulties, since 5 or 6 Polish vowels can fit the same amount of Russian sounds in stressed position and from 2 to 3 in unstressed position. The only question here seems to be the choice of a proper vowel for a given semantic item. Thus, Polish /a/ should be a satisfactory substitute for Russian unstressed vowels, represented by letter ą in:

/a/ /ą/ /ąręd, ąrodź, ązok, mokłak etc., and it should be Polish /i/ which can replace Russian unstressed [i]-like sounds spelled by letter ia or ą in:

/ia/ /jąd, jordź, ązok, mokłak etc.,
and it should be Polish /œ/ which can replace Russian unstressed [œ]-like sounds spelled by letter ą in:

/œ/ /œm, œwpie, œwpół, œwpad etc.

These and similar replacements form an evidence for the use of the structural approach in contrastive analysis, and that is the appropriate framework which is able to provide such a solution.

Thus, from the point of view of taxonomy Polish appears to have enough phonetic scenes for Russian unstressed vowels, and consequently Polish should not have many difficulties in acquiring these Russian sounds. However, this is not the case, since one of the greatest difficulties of Poles learning Russian consists in “okanie” instead of “okanie” and “ykanie” instead of “ykanie”. These errors are usually blame on Russian orthography, because unstressed vowels can be spelled as it has been shown in the examples /1/ and /2/.

The influence of spelling is not to be neglected, yet there are examples proving that such errors are caused by other factors as well. For instance, the independence of phonetic shapes of words from spelling and vice versa can be demonstrated by both very frequent Polish pronunciation of the Russian pronoun on as “ten” in stressed position and by refusing to write letter ą for stressed /œ/ in stressless “tęże like żą埭uż”.

Therefore we should look for another explanation, or, at least, for partial explanation of the cause of such errors. It is the absence of vowel alternation in Polish depending on stress and sonorant environment, which seems to cause such an inability of Poles to put proper vowel in unstressed and even in stressed syllables.

In the case mentioned above there appears to be more appropriate explanation based on generative phonology. It may be developed as follows. Since in Russian there are forms [fan], [fan] containing the [a]-like vowel in the first syllable, and since Polish does not have the rule deriving an unstressed /œ/ stressed /œ/ and thereby relating them to each other, then on the grounds of correct pronunciation of the forms mentioned, it is the [œ]-like sound that is generalized and regarded as underlying one, and then it appears in stressed position as well, in spite of the proper spelling. In the case of improper “okanie” in unstressed syllables, the proper underlying spelling is introduced, yet it is not changed into an [a]-like sound because of the lack of a corresponding rule in Polish. Such is the case of “ykanie” instead of “ykanie”, where on the basis of stressed vowel and the spelling, [œ] is regarded as underlying and as unchangeable. And such is also the cause of “ykanie” in the example /2/.

What follows is a conclusion that generative phonology should be included in contrastive analysis of Russian and Polish due to its capacity to explain real differences and thereby real equivalences with respect to unstressed vowels.

THE PROBLEM OF STRESS

The conclusion should be more obvious when we proceed to the problem of stress in Russian and Polish. It is common knowledge that both languages differ considerably in this respect. However, if we put aside morphological and lexical determination of it, then within the framework of taxonomy, two possible solutions are available concerning the differences, viz. Russian differs from Polish either in that its stress is not determined by any position of the word, while in Polish it is determined by the end of the word, or in that in Russian there are two different sets of vowels, stressed and unstressed /œ/, with a relative freedom of appearance in the word, while Polish has the same set for both positions. Closer scrutiny at the solutions, indeed, leads to the conclusion of a less categorical nature. For the former we should admit that in Polish multi-syllabic words, stress can be established on four last vowels e.g. [puz] [puz], [żag], [żag], [żag], [żag], [żag] etc. and then the difference against Russian consists in three syllables, because in the latter the stress can select each of the seven last vowels. It does not offer very much for equivalence between Russian and Polish. It would be enough to say that Poles have to acquire three more syllables for stress when using Russian. If we accept the second solution we should go back to the question of what causes Polish non-penultimate stress, and keeping to the same procedure we must establish two analogical sets of vowels as well. The only difference between the languages at issue would be confined to the fact that in Polish there would be no other restriction between the sets save the stress, while in Russian there should be different sets of vowels, i.e. 5 or 6 stressed-vowel patterns and 2-3 unstressed-vowel patterns.

Now we should recall that similar statement has been inferred in the framework of taxonomic model for the unstressed vowels. The problems of stress and unstressed vowels appear to be interdependent on this level of explanation, and were established independently of each other, which confirms the way of reasoning and forms a second justification for that level. That methodological justification together with some other observations concerning differences between Russian and Polish, e.g. that of distinctive function of the Russian stress against Polish, are satisfactory premises for accepting the structural model as a part of contrastive phonological analysis. However, as in the case of unstressed vowels it is not satisfactory in respect of the whole problem of stress for many reasons. Firstly, such a solution is not able to explain the changeability of Russian stress in the course of inflection and word-formation. Secondly, it cannot describe the stress as a suprasegmental phenomenon which can influence vowels. Finally, it does not provide an account of a crucial difference between Russian and Polish stress; it gives only an explanation which exposes merely different degrees in displaying the phenomenon of the same kind. There are, indeed, many indications to the opposite, i.e. that Russian and Polish stress are of different kind.
First of all, Polish stress does not have any connection with any particular morpheme, while Russian stress is attributed to many of them, e.g. cases of fixed stress or stressed affixes. There exist quite convincing arguments to treat Russian stress as morpheme stress /6/. And therefore any phonological model neglecting the morpheme and its phonetic properties is not able to provide a satisfactory explanation of Russian stress and its difference from Polish.

Such an explanation is available within the framework of generative phonology, as it has been shown in the dissertation of H.S. Coats, Jr. /7/, who has inferred Russian word stress from accental properties of underlying morphemes and has demonstrated that stress rules are the earliest in the course of derivation, placed just after word-formation rules. This is in accordance with the fact that Russian stress is of morphological origin, and this exposes the crucial difference from Polish stress, because the latter, as governed by the latest of phonological rules, is of different kind, being of phonetic origin /8/. On these grounds, the problem of interdependence, or rather dependence of Russian unstressed vowels upon the stress can attain better solution as well: stress rules are placed before any other phonological processes and therefore the stress can affect vowels. No such conclusion may be drawn from Polish, where the stressing is situated at the end of derivation, when all the vowels are established. Thereby stress and vowels are not interdependent. And that is why Russian vowels, for which Polish seems to have a sufficient number of surface sounds, cause such difficulties for Poles.

CONCLUSION

In the course of analyzing stress and vowels, it has been shown that both structural and generative models are useful and necessary in contrastive phonology, however, on a different level of explanation. Structural approach seems to provide explanations of direct equivalences of phonetic phenomena, while generative phonology explains the way of forming phonic shapes of semantic items, as well as hierarchy and interdependencies of different linguistic phenomena, enabling thereby to get a better understanding of equivalences among languages under comparison. Thus, they can be regarded as complementary in the global phonological analysis needed in contrastive linguistics.

REFERENCES


/2/ J. Fisiak, "Generative Phonological Contrastive Studies", "Kwartalnik Neofilologiczny", 33, 1976, p.120-121.


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