THE METALANGUAGE OF PHONOLOGY

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ABSTRACT

The metalanguage of phonology unites a strictly determined number of notions, forming an hierarchy - phoneme, feature, category, system, connected by law-governed relations and necessary for a non-contradictory, comprehensive and economic, both synchronic and diachronic, as well as typologic description of languages.

Metalanguage is a notion of mathematical logics, opposed to a language as an object. We interpret these notions in the spirit of J.Baudouin de Courtenay, who anticipated them to a certain degree distinguishing between "linguistic categories", i.e. the metalanguage, and "language-category", i.e. a language-object. The first ones are "pure abstractions", wile the second ones are something "living in a language" /3/.

Phoneme. The first notion of phonology metalanguage, the phoneme, was introduced by J.Baudouin de Courtenay, who defined it in his last works as "the psychical equivalent of a sound" /3/. This phoneme definition can be evaluated in the light of materialistic dialectics, taking into account that a speech sound is something material, moving air particles, while a phoneme is something ideal, i.e. a peculiar reflection of the material in the consciousness of a language speaker. As K.Marx wrote, the ideal is "nothing else than the material, transplanted into a human head and transformed there" /I/. Elaborating his phoneme theory, N.S. Trubetzkoy underlined, that phonemes realised themselves in speech sounds, that phonemes and sounds "lie in different planes", that is why a phoneme could not be considered as a family or a group of sounds, that we could not "begin with the sound" in defining a phoneme /4/. However, this true principles did not prevent him from criticizing the above-mentioned definition of the phoneme by J.Baudouin de Courtenay. Baudouin's phoneme is sensually concrete, it is the starting point in phonological cognition. The process of ascent from con-crete to abstract cognition is ascending from a Baudouin's phoneme to a feature, from a feature to a category of features, from the latter to a system. A further ascent from abstract to mentally concrete, the deepest and the most content-bound cognition, consists in the definition of the phoneme as a totality of abstractions /5/, /6/.

A feature is a class (split into property and set) of phonemes. N.S. Trubetzkoy considered the feature either as a class of phonemes, when he determined the series as set of phonemes, characterised by the same feature (in logic it is a determination of set via property), or as an element of the phoneme, when he said, that "a phoneme is easily split into its phonological features" /4/, /5/. In the last case he hypostazed the feature, i.e. he transformed it from a class into an element.

Category. N.S.Trubetzkoy has introduced the notion of "coordinate" (category of features). He was right as he noted, that "every feature certainly belongs to a coordinate", but he also noted, that "a feature enters a phoneme composition" (!) /4/. Neither his followers nor like-minded persons paed any attention to his coordinate. L.Hjelmslev and later E. Benveniste reduced all phonological system to two notions, the first one - to taxeme and glosseme /7/, /8/, the second one - to phoneme and merisme /9/. A complex integral system, i.e. the phonological one was turned by them into a simple, summative system, based not on subordination but on coordination /5/, /10/, /II/. Meanwhile a category of features (a coordinate for N.S.Trubetzkoy) is a cardinal notion of phonology, that can be defined as a class of non-crossing features.

System. The most general notion of the phonology metalanguage is the system, that is a class of feature categories. It is in the system that every feature of one category intersects with every feature of its other categories. It is further, the feature intersection points that form the phonemes. Every phoneme is determined by the same feature number (one belonging to every category of a given system). According to N.S. Trubetzkoy, phonemes of

the same system are determined by an unequal number of features. Sometimes he gave a phoneme "pure negative" definitions, that contradict elementary rules of logic. Potentiality. A phonological system has a potential character /5/, /12/. The number of its possible phonemes is equal to the product of the numbers of different category features /5/. Thus, in the system of vowels there are 12 (i.e. 3 x 2 x 2 = 12) potential phonemes. The system is opposed to the inventory of actual phonemes, representing the realization of a certain number of potential phonemes. Thus, of the 12 potential vowels 3 are realized in Semitic languages, 5- in Russian, 6 - in Bulgarian, 7 - in Italian, 9 - in Moldavian etc. /5/.

Inventory. In order to reveal the interrelation between actual (realized) and potential phonemes, it is important to distinguish the plane of expression from that of contents, as identified by L.Hjelmslev /7/.

A phonological structure does not belong completely to the plane of the language expression, as he supposed. It is only the inventory of actual phonemes which belongs to the plane of expression, while the potential system belongs to that of content.

Since only the inventory of realized (actual) phonemes is a part of the plane of expression, the problem of language levels becomes meaningless.

Opposition. As far as actual phonemes are concerned, it is necessary to note, that their opposition can not be the criterion of feature relevancy, as N.S.Trubetzkoy supposed. He exaggerated the importance of opposition, as he said, that "in phonology the main role is played not by phonemes, but by sense distinguishing oppositions" /4/. V.I.Lenin considered exaggerations like that of regarding one of the sides or verges of cognition as something absolute /2/, as idealism.

Sense. Besides that, neither features nor phonemes have direct relations to sense differentiation. Sense is expressed by words, not by phonemes, features or their oppositions.

System laws. The relevance of a feature, as well as that of a phoneme is determined by system laws, by data of language history, its dialectology and typology. E.g., for labial consonants it is not labiality that appears relevant. The nasality of French vowels belongs to the category of opening features /24/ etc. Let us exemplify it. Thus, nasality of French vowels proves to be a feature of the category of opening degree with the following features of its own: close, mid open, open and utmost (maximum) open, i.e. nasal, because according to the system laws /5/ nasality as a feature does not intersect with other features of its category, but it does intersect with all the features of other categories of a given system.

The interpretation of nasality as of a feature of the category of the vowel opening degree is explained by phonetical switching of nasal cavity as an additional resonator pronouncing open vowels.

The development of a feature as a phoneme class is observed also in many other cases in the process of investigation of phonological systems in historical (diachronical) plane.

Thus, all the class of actual backlingual consonants of vulgar Latin was transformed under certain conditions in the class of "labial" consonants in Moldavian (k>p; g>b; ŋ>m). And vice versa: all the class of labial consonants of Moldavian before i, j is transformed, in one of its dialects, in the class of soft mediopalatal consonants and then in one of soft prepalatal consonants, in its other dialect (p>k'>t'; b>g'>d'; m>n>ŋ'; f>š>s'; v>ž>z').

The movement of whole classes (features) of vowels allows us to admit, that what seems to be labial is not labial, but exactly its opposite, being more back than backlingual. Such a feature is apparently glottal, if we agree with M.Grammont's point of view, according to which labial consonants are characterized by a double occlusion, both glottal and labial /15/.

The glottal feature of the consonants explains why all the class of front vowels i,e,ɛ, preserved as such in Aromanian (Macedo - Romanian), shifted after labial consonants to the class of back vowels p, b, m, f, v in Romanian.

Consequently it is reasonable to admit that the formula of local features of the consonants p-t-k should be replaced by t-k-p.

Feature incompatibility. The class of soft mediopalatal consonants is incompatible with that of soft prepalatal consonants in the same language or dialect /5/.

Phonological feature vs. anthropophonic feature. An anthropophonic (phonetical) feature (e.g. a voiced or voiceless consonant) can be directly observed by a phonetist. Thus Russian word пруд is pronounced as прут. Sonority as a phonological feature of the phoneme "д" is the essence of the sound /д/, i.e. the abstract feature of the phoneme. Essence, as Hegel said "is preserved in its perfect purity" irrespective of the position, in which one or another allophone may turn out. The sound as such may also disappear completely without affecting the phoneme it retely presents (as for example in the Russian солнце where "л" is not pronounced).

Neutralization. It is not the phonological features but the anthropophonic properties, which are neutralized /14/. Y.K. Lekomtsev is right, in considering neutralization as "substantional noise", in-

cluded in the circle of theoretical notions /16/, /17/.

Marking. According to phonology, marking opposition members (as admitted by N.S. Trubetzkoy) /4/ is not possible because it contradicts the logical equivalence both of phonemes and of phonological features (see System).

Constitutive and non-constitutive changes. We consider as non-constitutive the transformation of one inventory phoneme into another, e.g. l r, as in Latin dolere, Romanian durere. It was using only non-constitutive changes that W.Wartburg divided Romania into two language zones /18/

The transformation of potential phonemes , and others into actual (inventory) ones reflects minimum constitutive changes, i.e. those affecting only the inventory, but not the system.

The constitutive changes concerning a system can be devided into minimum and maximum ones. The former are nothing more than the appearance or disappearance of a given feature (e.g. in the development of French consonant system a class of affricates appeared, which later disappeared), an exemple of the latter is the disappearance of vowel length, a fact which we consider as the beginning of vulgar Latin between the 2-nd and the 3-rd centuries A.D.) /19/.

It is in this period that we see the division of Romania into three dialect zones with their specific vowel inventories /20/.

Taking into account the change hierarchy is essential for the determination of the language relation degree /21/, as well as for the language history periodization /22/ and for the dividing of a language into dialect units of several degrees: dialect, subdialect etc. /23/.

Phonology and Geometry (stereometry)
As N.S.Trubetzkoy has noted, "the order, achieved by phoneme division into parallel rows reflects the phonological reality" /4/. Features as phoneme classes (see Feature) parallel to each other within the same category and perpendicular to parallel features of other categories of the same system (see Category and System) form geometrical figures, that allow us to regard the theory of phoneme as a science not inferior to geometry in its exactitude /24/, /25/, /27/, /28/.

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