

The Ontology of the Phoneme in Early Prague Linguistic Circle

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Probably the most complex problem for all linguists who in principle accepted de Saussure's doctrine of the opposition between «la langue» and «la parole», was the ontology of the units of «la langue». What are *unités relatives, oppositives et négatives* ?

In the development of Roman Jakobson's thought this question was answered in different ways. He seems to have been at his most «saussurien» in Copenhagen in 1939 when he said :

Das Phonem (...) ist ein reines Unterscheidungszeichen, welches an und für sich nichts positives, einheitliches und konstantes als das der blossen Tatsache des Anderseins besagt.

(Jakobson, 1971, p. 310)

Jakobson's subsequent development proceeded, however, in a fairly different direction, as is also indicated by the title of his last work *The Sound Shape of Language*.

1. In 1934 N. S. Trubetzkoy's «Das morphonologische System der russischen Sprache» appeared as the second part of the fifth volume whose general title was : *Description phonologique du russe moderne*. The scheduled volume should have contained two parts : the phonology of the word and the phonology of the morpheme — «Wortphonologie» and «Morphophonologie», changed immediately into «Morphonologie» (which Roman Jakobson defined for instance in *Ottův slovník naučný*, Praha 1932 ; cf. Jakobson, 1971, p. 231–3). The published second part dealt with Morpho(pho)nologie, defined as «Die Erforschung der Arten und des Umfangs der Morphemänderung (...)» (Trubetzkoy, 1934, p. 20).

In his preface Trubetzkoy refers to *TCLP5* as «our collective work». The second participant of this collective should have been Roman Jakobson, as is said on p. 22, note 19 :

Näheres über die Stellungen, wo im Russischen die 'Mouillierungskorrelation' aufgehoben wird s/ehe/ in R. Jakobson's Abhandlung über die allgemeine Wortphonologie der russischen Sprache.

And the cover of the serie's final volume VIII, published in 1939, still announces the forthcoming appearance of «R. Jakobson, Phonologie générale du mot (en préparation)». From such wording it would seem that a detailed monograph about the Russian phonology/phonemics was being or had already been written at the time. Nonetheless, in his preface Troubetzkoy complains that «nennenswerte Vorarbeiten» (preparatory studies of any value) in this area are lacking and that he is forced to rely on, or to examine his own «Sprachgefühl». Such preparatory study was especially needed in a complex field like that of Russian palatality, with its subtle differences between palatality and non-palatality through neutralization on one side, and a distinctive palatality on the other side (cf. e.g. *mednyj* {med,-#n-oj}, cf. *med'*, *pal'čik* {pal-#č-ik}, cf. *bespalyj* vs *gor'ko* {gor,-#k-o}, *gorka* {gor-#k-a}). Though it should have been contained in Jakobson's part one, such study was missing.

This part was never published. Roman Jakobson, his immense work notwithstanding, never wrote such description. We are thus entitled to ask why.

2. Five years later, in 1939, Trubetzkoy's unfinished *Grundzüge der Phonologie* appeared posthumously as the seventh volume of *TCLP*. There, however, the words «Morphonologie, Morphem» were never used ; according to the editors, «Morphonologie» should have been a separate part of *Grundzüge*. Nonetheless, Trubetzkoy had there used the same procedures for phoneme identification as in *TCLP5*. Had he abandoned the concept of morphophonology as a separate part of the general phonology (phonemics) ? Given his untimely death, we can only guess what he would have done later.

3.1. The development of Roman Jakobson's thought, on the other hand, is now explicitly in front of us, with his epitaphic — maybe more epitaphic than summarizing — book *The Sound Shape of Language* (coauthored with Linda Waugh). Consequently, we can try to trace the development of his position from the unwritten *Phonologie générale du mot* to his formulations in the review of Avanesov's *Fonetika* in 1959 as follows :

The [...] discussion [...] discloses the impediments which remain inevitable as long as the phoneme continues to be interpreted as the *minimal sound unit*. As soon as the place of such entity is transferred from phonemes to the distinctive features as their ultimate constituents and the phonemes are approached as bundles of such features, the complications resulting from the *so-called* neutralization of phonemes *simply* disappear¹.

(Jakobson, 1971, p. 535)

3.2. In his writings from early 1920s on, Jakobson suggests describing speech sounds not as results of organogenetic factors, i.e. by describing their articulation, but rather by describing their acoustic properties, i.e. the properties received and analyzed by the ear of the addressee and converted into meaning by his brain. This acoustic tendency is clearly formulated in PLC's *Thèses* for the first Congress of Slavonic Studies in 1929. When studying the phonology phenomena,

c'est l'analyse acoustique qui doit ressortir au premier plan, car c'est précisément l'image acoustique et non l'image motrice qui est visée par le sujet parlant.

(Vachek, 1964, p. 37)

1.3.3. Some years later, Jakobson and Trubetzkoy began writing jointly a general description of the phonology of Russian : we must assume that there was a shared methodological basis. As we can see from the published part, this shared basis must have initially been one that had been deployed by Trubetzkoy — defining phonemes by all their possible oppositions in each real given word form (cf. e.g. *ded* /dèT/). With this method, an important role must be accepted for neutralization, and the phoneme inventory must be augmented, with a division into phonemes and archiphonemes. For instance :

p	p'	p	4 phonemes, 5 archiphonemes
b	b'	b	
P	P'	P	

There is no room here for the acoustic aspect of the speech sounds.

¹ (my emphasis, L. Ž.)

Such identification from real word forms hardly yields — at least in the case of Russian — satisfactory results. Movements of accent, zero vowel, combinations of the same stem with different affixes frequently cause non-realistic alternations, in some cases total suppletivism of any of the morphemes — *entia multiplicantur sine necessitate*, to apply the classical formula. For instance :

N.pl. *bórody* /b~òrăd~ - i/
G.pl. *boród* /băr~òT~ - Ø/

The two stem allomorphs *bórody* and *boród* thus have no identical phoneme, and should consequently be considered as suppletive forms.

Though aiming to describe the behavior of morphemes, what Trubetzkoy in *TCLP 5/2* identified as phonemes, in effect characterizes the behavior of words, single word forms — it is, then, actually «Wortphonologie».

It is today difficult to find the reason behind Jakobson's change of mind and his failure to write his assigned part of the fifth volume of *TCLP*. Did he, in the wake of *TCLP 5/2*, not see a separate object for his «Wortphonologie»? Did he recognize all the pitfalls involved in the neutralizations and archiphonemes? Or did he ultimately disagree with this phoneme defined through articulatory rather than through acoustic properties? The fact remains that he never wrote the first part and, as far as I know, never explained his reasons publicly. Neither did he later try to write a description of the Russian phoneme system².

1.3.4.1. Roman Jakobson decided to go his own way. Already in 1938-39, simultaneously with the publication of *Grundzüge* by Trubetzkoy, he presented at the 3rd Congress of phonetic sciences in Ghent his own classification of consonants based on his analysis of their sound properties. Here emerge the new concepts and the new terminology such as *acute vs grave*, *compact vs diffuse*, etc. And here Jakobson adheres to the Bloomfieldian «inner approach 'to the phoneme in its relation to sound'», which he later came to deploy in *Fundamentals*, later renamed *Phonology and Phonetics* (Jakobson, 1971, p. 468) :

² For my analysis of Trubetzkoy's *Grundzüge* see the article I entitled «Wie bei Trubetzkoy die Sprachgebildelautelehre zur Sprechaktphonologie wurde», i.e. how Trubetzkoy moved the phoneme from «la langue» to «la parole»: Źurovič, 1978.

The speaker has learned to make sound-producing movements in such a way that the distinctive features are present in the sound waves, and the listener has learned to extract them from these waves. This so-to-speak *inner*, immanent approach [...] locates the distinctive features and their bundles within the speech sound.

(Jakobson, 1971, p. 468)

Such conception makes the information present in the physical speech sufficient for the identification of phonemes. Putting this explicitly (RJ is here talking about Russian [z'] in *zdes'*, where both the phonetic palatality and voicedness are necessarily given by the following [d']):

The question of rendering such 'incomplete' phonemes in transcription creates unavoidable complications and disagreements as long as spelling is based not on features themselves, but on entire phonemes.

(Jakobson & Waugh, 1979, p. 28)

Unfortunately, no such improved transcription was provided. Cf., however :

(distinctive features) form a reasonable and adequate framework for description [...] of the *phonic*³ side of Russian.

(Halle, 1959, p. 11)

1.3.4.2. Yet another concept of phonemic entities appears in RJ's pivotal study «Russian Conjugation» in *Word* 4. Here he uses morphophonemic transcription — without ever using the term «morphophoneme» — for rendering «bare verbal components», i.e. morphemes. This usage has nothing in common, however, with Troubetzkoy's morphophonemics. The «bare verbal components», or in Bloomfield's terminology, «theoretical basic forms» or «artificial underlying forms» present the Russian morphemes as they can be reconstructed from all the occurrences of the same morpheme, i.e. in different words and word forms (though Jakobson doesn't provide an explicit motivation for this transcription). For example, the stem of the verb *vesti* is rendered morphophonemically as {v'od-}, although a real form such as **vědu* does not exist. {v'-} and {o-} are from e.g. *věl*, {-d-} from e.g. *vedu*. The palatalized alternant {v'od'-}, cf. *veděš'* can be derived from {v'od-} with the help of one of Jakobson's well-known rules and the unaccented phonetic [i] in *vedú*, *veděš'* is the normal realization of the unaccented (mor)phoneme {o} after a palatalized consonant.

This procedure is in principle identical to that which had earlier only been used by Avanesov – Sidorov in 1945 (and which is not cited by

³ My emphasis

RJ). The same morphophonemic interpretation and transcription was used by the Moscow phonological school, *e.g.* Avanesov 1956 ; it was also used by M. Halle (1959), in my *Paradigmatika* (Đurovič, 1964), etc. Each from his own positions, Avanesov and Halle separately accounted for this concept of phoneme.

There is, however, an important difference between Jakobson and the other cited authors. In RJ's work the morphophonemic transcription is only applied to isolated morphemes, while all morpheme combinations in concrete word forms are instead interpreted via phonemic transcription, somewhat in the same way as the «Prague» or «Trubetzkoy» phonemes. The most substantial — most significant ? — difference consists in Jakobson's ignoring the issue of neutralization, both in his morphophonemic and in his phonemic transcription. Hence, although the palatality before {e} is automatic, non-distinctive and the real phonemic quality of [d'] and [v'] in such position «unspecified» (Halle), or else [d'] and [v'] are conceived as «weak phonemes» (Avanesov), Jakobson writes morphophonemically {d'élaj-}, {v'ér'i-}, etc. Nowhere in his work does RJ deal with the fundamental problem of the Russian accent, namely with the fact that the opposition of one accentuated *vs* one unaccentuated vowel alone is not phonemically distinctive. In other words, the difference of [á] *vs* [A] alone cannot distinguish a minimal pair (cf. Kuznecov, 1970, p. 360 with explicit polemic against Jakobson). This may explain why, whether morphophonemically or phonemically, RJ identifies each [A] and [ə] automatically as {a}, /a/. Hence, his theoretical basic form for *kovát'*, *kujú* is {kavá-} : the unaccented {-a-} has no motivation (rather the opposite is true, cf. *e.g.* *kóvkij*), except the very approximative acoustic impression of [A], which Troubetzkoy always interpreted as /ǎ/, but RJ as {a}, /a/.

The highly stimulating power of this paper derives from its presentation of a language system on two different phonological levels, in contrast to the Saussurian conception in which the phonological units are contained on one level only — the level of *la langue* — while their realizations, *la parole*, are speech sounds.

The space between the morphophonemic and the phonemic level provided, in turn, the stimulus for different generative schools (*e.g.* Halle's MS-rules or Worth's D — R rules).

1.3.4.3. In his phonemic transcription Jakobson presents real word forms. Unlike Trubetzkoy, however, as I have just pointed out, he completely ignores neutralizations. Consequently all phonemes in neutralizing positions are identified through their acoustic impressions : [A, ə] are /a/, [ɨ] is /i/, consonants are noted as palatalized or non-palatalized in accordance with their pronunciation. This means in turn that in conjugation Jakobson

finds forms as /smatr'-ú/ *smotrjú* where *TCLP5/2* has /s-mätr'ú/; other such pairs are /l'ižá-l/ *ležál* instead of /l'ížal-/ , /m'éč-u/ *méču* instead of /méču/, naturally /staj-ú/ *stojú* instead of /Stájú/, etc. In other articles such an approach can yield bizarre consequences : in a study of the redundant letters in Russian alphabet (Jakobson, 1971, p. 556–557) homographs *okónce* for L.sg. and N.sg. are, in accordance with their different pronunciation [-čy] and [-cə] respectively, phonemically rendered as L.sg. /akónci/ and N.sg. /akónca/, «sovpadajuščego po sostavu fonem s imenitel'nym množestvennogo» (558), i.e. with *okónca*. Hence, as a result of the neutralization of the opposition {o} : {a} (for instance under accent N.sg. is *veščestvó*, and N.pl. *veščestvá*) the [ə] is for RJ here decisive for conceiving both N.sg. *okónce* and N.pl. neutre *okónca* as having the same ending /-a/, as homoforms.

Such neglect of actual oppositions (as against de Saussure's «entités oppositives», «valeur») and his reliance on exclusively phonetic properties of the items under identification (as against Saussure's «entités relatives et négatives») must be seen as symptomatic for Jakobson's «inner approach» to the phoneme : all properties relevant for the phonemic identification of speech sounds are inherent in them, they *are* the distinctive features.

While in a 1939 review of van Wijk's introduction to phonology Roman Jakobson still speaks of «le problème important de la neutralisation des oppositions phonologiques» (Jakobson, 1971, p. 314), some years later, after the war and his move to the US, the conception shifts. Presuming that the minimal units are the distinctive features, «all the complications resulting from the so-called neutralization of phonemes simply disappear», as he puts in the (above-mentioned) review of Avanesov's *Fonetika*; here he in other words applies criteria found directly in the acoustic sound waves.

This return to a pure — and therefore «simple» — sound interpretation of those functionally complex facts can be seen as Roman Jakobson's return to his youth, to OPOJAZ' and futurism's fascination with sound properties of the human speech.

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