Realization of Phonemes and Linguistic Norm

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According to a paper by two distinguished scholars, "the central problem which confronts the science of linguistics in its attempt to describe the phonic aspect of language… is the nature of the relationship between phonological entities and sound" (*Mol* and *Uhlenbeck*, 1959[12], p. 161). If we discard – as the authors rightly do – the attempts to solve the problem either by a purely phonetic, or by a purely mathematical (in *Hjelmslev's* sense) approach, we are obliged to account in some other way for the difficulties involved in the identification of phonemes, on the one hand, and of phones, on the other. Of course, we admit the possibility of arriving at a satisfactory analysis of speech sounds by means of various techniques, starting from auditory, and ending (with the aid of modern technology) with acoustic analysis. Phonetic science has long been satisfied with the articulatory approach; only in relatively recent times, with the development of the necessary technical means, has a need for deeper knowledge been felt. As for phonemicists, extending their descriptions to more and more languages, they seem to imply that practical results are relatively easy to achieve. In both cases, however, one has the feeling of working in some sort of laboratory situation, where conditions are to be stated in advance (*Mol* 1954[12], p. 169).

What then will occur, when – as the authors quoted add a little later – "instead of deducing a distinctive function from speech situations which rarely occur, we prefer to start from what happens in everyday speech" (*Mol* and *Uhlenbeck*, 1959[12], p. 165)? They end up by suggesting that "recognition and identification of words… is not guaranteed by a certain phonic invariance of phonemes, but rests… upon the interpretative faculty of the listener (*Mol* and *Uhlenbeck*, 1959[12], p. 161).

In the present report I will try to investigate to what extent this "interpretative faculty" of the listener can be expected to work. It hardly needs to be said that we are rather scantily informed about the psycho-physiological operations of the ear and of the parts of the brain connected with it, when we try to consider in detail the way a listener "hears" the spoken utterances. The study of the listener, with the cooperation of physiologists, psychologists and phoneticians, has only just begun (*French*[8], p. 65 ss.), while researches in the past have been mainly concerned with the speaker.

We can however discover many cases in which the criterion of "phonematic interpretation" is insufficient to explain how the relation between sound and phoneme works. Usually speech sounds are thought of as variants, as against the phonemes, which are defined as invariants (*Dieth*[3], p. 336; *Grammont*[9], p. 9, and *Jakobson*[11], p. 231), but it is possible to list some situations, where phonemic invariance cannot explain by itself the identification of the phonetic entities involved.

1. Different sounds which have no phonematic value, can be accepted as realizations of the same phoneme and still be kept apart as symptoms of different "styles" (in which speed of utterance, emotional state of the speaker, etc., play a role) (e.g. the realization of various english phonemes in the pronunciation of 'seven' as registered by *Lane* (*Dieth*[3], pp. 334–335).

2. Different sounds, occurring as positional variants of the same phoneme, can be sharply identified (e.g. the German phoneme /x/ realized either in the *ich* or in the *ach* type; confusion of the two types is unacceptable* (*Heffner*[10], p. 66).

3. Different realizations, with phonemic relevance, can occur in the same place in certain word-forms, according to regional or social habits (e.g. a certain number of Italian words can be pronounced either with stressed *o* or *ɔ*; the difference between these vowels is supposed to be phonemic (*Francescato*[4], pp. 118, 121–122), but in practice both pronunciations are accepted, and act as a criterion for social or regional identification of the speaker).

4. Differing realizations of different phonemes can occur in the same total distributions ('diasystem'), according to regional or social habits [e.g. Friulian *fúk, fôk, fóuk, fúek*; these realizations are

* An analogous example is represented by the lowering of the vowels in Danish before *r*; but the lack of the positional variant seems not so hurting for the natives' feeling in this case, as in the other.

considered local idiosyncrasies (*Francescato*[5])*; the same holds for Friulian *s*, *ś*, *ʒ* in their various distributions (*Francescato*[7])].

5. The realization of certain phonemes is acceptable only when close enough to a certain phonetic type, even if there is no phonematic motive for this limitations [e.g. modern Serbo-Croatian, with a five-vowel system, admits as normal the realization of the mid vowels only in the open range, although there is no contrast with a close range (*Schmaus*[14], p. 8)**].

These situations are as a rule dealt with under the label of 'norm'. In the usual acceptation 'norm' means "what is in accord with a certain standard". Linguists use it to mean the "constant forms which are partially non-functional", as against the "constant forms which are always functional", viz. the phonemes (*Coseriu*[2], p. 208 ss.). We have seen that even the functional forms cannot always be identified as constants. It seems unavoidable that, to identify correctly the phonic entities involved in the situations listed, some sort of phonetic interpretation has to be recognized.

On the other hand, we are well aware of the fact that many important clues about social or emotional factors, interfering with linguistic usage, are gained by the listener just by comparing what he hears with some sort of ideal 'norm' he has in mind. Our every-day experience suggests that the commonest form of phonetic teaching consists precisely in offering 'normal forms', to which the speaker is supposed to adapt himself. Furthermore, the acquisition of the native phonologic system could not be understood, if we would not admit that there is some sort of 'norm', to which adult speech is accommodated, and to which children look, in order to establish their own linguistic habits***.

Communication by means of language is, to a certain extent, an interplay of guesswork between speaker and listener (*Mol*[13], p. 23), but the clues offered by phonetic elements probably play a more important part than recent research seems inclined to attribute them (*v. d. Berg*[1], p. 50 ss.).

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* An interpretation in terms of 'diasystem' is suggested in my paper *Dialect borders and linguistic systems*, s. Lit. 6.

** Cf. *R. Jakobson*, TCLC *V:* 209 (1949); *Hodge*, Language *22:* 112 (1946).

*** Up to a certain age, children do all by themselves to learn their mother tongue and only on later stages adults can play actively upon the speech of children by means, of correction.

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