

1.24 Phonetic Reasons and Phonological Consequences of Homogeneous speech sounds

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ABSTRACT

The exposition about homogeneous or heterogeneous sounds appear rather conventional, as far as, absolute homogeneous speech sounds do not exist: changes in duration (time) for natural speech signal, defined by the same environment of the source of the signal, so natural, like naturally absence of absolute immobility in any live system. Traditional phonetic exposition about three phase in sound articulation-onset (beginning), retentions and release assume in obvious or unobvious aspect, that the retention characterizes with some invariable condition of articulatory organs and acoustically itself corresponds to the stationary part of sound that appear as most representative character of it. Actually those expositions are conventional or they are based on mostly observing separate sound articulation or syllables or such speech that can be named "Laboratory". It is noticeable that the phase of retention can not be considered as the most characteristic of sound for ever. So all obstruent (stop) consonants differ in their articulation from the active organ that makes the closure (occlusion) and acoustically and perceptively differ according to articulation of transitional elements of neighboring vowels and according to the onset (beginning). Nevertheless, the effort to characterize every sound as sequence of three phases seems to be rather conventional, especially in text book of phonetic.

Appearances of connected spontaneous speech disprove those expositions. Strictly, describing every sound as homogeneous seems to be conventional and further in narration can be implied inverted commas, in defining sounds as homogeneous. Only in describing phonological properties of monophthongs with contrastive diphthongs or polyphthongs, that term has direct meaning.

Heterogeneous vowels and consonants can be characterized from different points of view: articulatorily, acoustically and perceptually.

The reasons of heterogeneous can be divided into several groups:

1. The heterogeneity is defined by the system of phoneme itself. For example; • According to their articulation heterogeneous consonant stops are contrasted with homogeneous fricatives. • Heterogeneous diphthongs are contrasted with homogeneous monophthong. The characteristic changes of articulation during the realization appear as a phonological sign and disappearance of such heterogeneity evaluate as a important appearance of the sound system. Lot of research works are devoted to process of spirantisation of stop consonants in various languages or monophthongisation of diphthongs. Use of heterogeneity in phonological systems is almost universal, but the degree of implication can be vivid. There are lot of languages, where there is no diphthongs in the form of independent phonological unit, the number of stops and fricatives are not equal in the presence of various active

organs. It is practiced on a large scale, the systems of consonants, where lack labial back lingual affricates.

2. Heterogeneity is caused due to features of articulatory base and it does not possess phonological value. Diphthongness of [O] and [I] maybe appear as a orphophonetic sign, that can be judged about sociolinguistic sign of the informant and its form of dialect or language affiliation. This phonologically opaque heterogeneity can have different reasons. So it can be assumed that realization of [U] shape onset- distinctive compensation of weak articulation that bring to following considerable opening and delabialization of vowel [o]. Diphthongness of heterogeneous [I] also can be described as an effort for most definite localization which has phonologically stipulated status. It is noticed that those properties presented only in basic allophones of vowels, and in the presence of combinative positional changes can be lost totally or partially.

3. Heterogeneity realizes as a result of phonetic conditions – quality of neighboring sounds, positions relating to stress etc. Most clear evidence for such heterogeneity is transitional part that arises during the articulation of vowels located close to consonants. As far as any palatalized consonant is pronounced when the front middle part of the tongue is raised and forwarded. The beginning of the articulation of the next vowel defined with that and every vowel begins with [I] shape transitional part. Duration of that articulation and the difference from its own articulation of the vowel is larger and more differ from basic allophones of vowel [I]. Of course, that part does not appear as a homogeneous and can be characterized as continuous motion of articulatory organs from [I]shape position to corresponding articulatory position of given vowel in phonetically independent position. Though that last position does not reach so far, especially in rather fast temp of speech.

4. Heterogeneity of articulation is a characteristic for sounds that possess short duration. In many occasions, reduction of duration of short vowels, lead to, that vowel articulate like overall transitional movement from the position that define preceding consonant, to the position, necessary to pronounce next consonant. However that type of articulatory heterogeneity can be met in pronunciation of stressed vowels, especially if surrounding consonants strongly differ in their characteristics.

5. About the consonants, also can be said about such combinative homogeneity. So an unvoiced consonant positioned after a vowel, partially characterizes with voiced parts and it needs big effect of articulatory organs. In that occasion vocal chords unable to stop their work to the starting moment of the articulation of unvoiced consonant. A consonant after a labialized vowel strongly delabializes in the middle of its own articulation.

6. Articulatory heterogeneity realizations bring to acoustic heterogeneity. It can be seen that, frequency of formant of such heterogeneous allophones characterizes with compulsory changes. Nature of changes in most cases predictable and can be described by the corresponding articulatory process.

Keywords: homogeneous speech sounds, heterogeneous speech sounds