ABSTRACT
The interconnection between the events usually described as supersegmental (such as phonemic tones) and segmental units is studied mainly on the example of phonological systems with laryngealization and pharyngealization used as supersegmental features in a syllable or a word. Synchronic and diachronic typology of prosodic systems with laryngealized and pharyngealized tones are discussed in connection with those phonetic data that give experimental support for the reconstructed historical evolution.

The problem of the relation between segmental phonemes and tones in diachrony is of utmost importance for the correct theoretic distinction between those aspects of speech sounds that are grasped by means of phonetic equipment and the purely functional use of the same sounds.

One should stress the importance of the problem for the general phonology since many other facts too point to the interconnection between the events usually described as supersegmental (particularly phonemic tones) and those phonetic manifestations that are considered mostly as segmental ones, cf. /1/, /2/.

In the recent studies on the tone phonology two results have been deduced that may be connected with each other. First in a lot of languages the segment inventory of the syllable phonemes can influence in unforeseen degree the supersegmental characteristics of the tone. From the point of view of natural phonology stressing (as the academician Shcherba's conception has done) the importance of the phonetic substance one might speak about the phonologization in separate languages of those regular relations that on the phonetic level may be discovered between the feature voicedness-unvoicedness of stops and the feature high-low in the adjoining vowel /3/. From many diachronic consequences of this universal one might give only one example: Verner's law may be interpreted as the continuation of the old differences between the high and the low tones (and between the unvoiced and voiced consonants in Proto-Germanic) in the given forms /4/ of the typologically similar opposition between /p61b/ 'back' and /b6l/ 'his back' in Kpelle (the group Mande, Liberia), where according to Welmer in the second form the low tone is reconstructed that could cause voicing. In the synchrony the causal link between supersegmental units and the complex character of prosodemes are found; in them the features are phonologized that can be described as phonologically segmental.

Secondly it is found that phonological oppositions of supersegmental units - tones (or prosodemes) in a number of languages are formed by differences not only in pitch and melody but also by some other features: quantity (for example in some Chinese dialects such as Shang-Khai and Amul, in Burmese, modern Yenissey languages), intensity, laryngealization and pharyngealization etc. These features are intertwined with those of pitch and melody. That makes the notion of tone in such a classical tone language as Chinese much more complicated than it had been supposed earlier.

From the point of view of general phonetics most understandable is the functional similarity between pitch and melody differences and the glottal stop since the glottalization is localized in the same part of the vocal mechanism where the different types of phonation are produced. For the concrete understanding of these phenomena important are the results of the investigation of the relation between the low tone and the voicedness of the consonant which is connected with the non-tenseness of the vocal chords. The suggestion according to which the pitch is becoming higher due to the growth of the tenseness...
of the vocal chords (and of the subglottal pressure) can be verified experimentally. In the glottal stop takes part in tone oppositions. The glottal stop (as also in Proto-Lolo-Burmese) a number of languages where the rel. The Proto—Lo—Bodo subgroup of the Tibeto-Burmese, Assam) the glottal stop and the rising tone are in close syllables. In the Auyile dialect of the same language a similar rising of the tone takes place in a syllable after which the glottal stop follows. Particularly interesting are the data of the Northern Thai dialect of Sang-ya. In it the tones of the high series (the first one and the fifth one) and the glottal stop are united and are tonematically close to the initial pre-glottalized consonants. One can think that the glottal stop and the voiced preglottalized consonants are always similar as to their function. The glottal stop usually do not lower it, but they can rise it. In the Auyile dialect of the group Palaung the glottal stop, which is pronounced with the opening of the closed vocal chords, does not cause the lowering of the tone in distincine to other voiced consonants. This can be related to the data of experimental phonetics according to which laryngealized (pre-glottalized) consonants might rise the tone more or less than other types of consonants. In this respect they differ from the other consonants which may unusually lower the tones. From the point of view of the modern phonetic theories the laryngealized consonants might be compared to the modern American English consonants where the pitch during the closure and the growth of the number of vibrations, it can be supposed that the vowel length (or the quantity) lead to the rising of tone found in some modern australo-african languages (particularly in the Eastern Bengalian dialect of Dacca) in connection with the expressive character of consonants (as in Hindustani) or the development of tones. The universal that leads from the existence of the glottal stop in some languages of the world to the development of the high rising tone in the Lolo-Burmese languages of the subgroup of Tibeto-Burmese. The Proto—Lo—

le 4 p. r,— k of Proto-Lolo-Burmese has merged in a glottal stop due to the law that the end stops are worn out and tone (as in Proto—Lo—Burmese). The Proto—Lo—

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