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ON FACTORS AFFECTING THE PITCH LEVEL OF SPEECH

Contrary to the rich data on the fluctuation of fundamental frequency of voice or intonation in human speech, very little information is available on the different average pitch levels or 'keys' of voice. Theoretical discussion can be found in phoniatric literature or in the field of speech education but the data, if any, are usually based on subjective impressions only. A method making use of modern digital techniques has been constructed in the phonetic laboratory of the University of Jyväskylä. The method enables a quick and easy measuring of the mean fundamental frequency of longer stretches of speech.

In this paper, the method of measuring the mean pitch level will be introduced, and various factors affecting the regulation of the pitch-key will be discussed. At least three different factors account for the differences in the pitch level of an individual speaker: (1) established norms of linguistic behaviour, (2) the social role of the speaker, and (3) his/her actual attitude, like anxiety or uncertainty, towards the situation or the subject matter under discussion. Preliminary findings seem to indicate, for instance, that

– in Finnish a lower pitch level is used in more formal or interactively more neutral or remote linguistic situations (e.g. reading a paper aloud, discussing in a foreign language) while a higher key is chosen in a more informal situation (e.g. when speaking or discussing spontaneously in the mother tongue). In English the rules for pitch-key seem to be different, which in part explains the communicative difficulties of a Finn in a foreign language.

– the use of pitch level to emphasize social roles seems to be different, depending on the educational level or, to some extent, the social class of the speaker.