WHY CHINESE PEOPLE ARE PERCEIVED AS LOUDER? 
AN EXPLANATION

Formulation of the Problem. Chinese people are often perceived as being louder than many others. In this paper, we provide a possible explanation for this phenomenon.

Our Explanation. All languages use intonation to convey the meaning. In the Indo-European languages like English intonation is used to convey, e.g., whether a phrase is a statement or a question, "I do" versus "I do?". However, the meaning of individual words does not change when we change the intonation.

In contrast, in Chinese, the intonation changes the meaning of each word. The classical example is that, depending on whether we use the intonation in which the intensity of sound increases or decreases with time, the same word "ma" can have many meanings ranging from mother to horse.

This phenomenon is similar to the difference between Amplitude Modulation (AM) and Frequency Modulation (FM): in AM, the useful signal is conveyed by changing the amplitude of the transmitted radio signal, while in FM, it is conveyed by changing its frequency. In linguistics, different frequencies correspond to different phonemes. From this viewpoint, Indo-European languages mostly use FM to convey the meaning, while the Chinese language uses AM as well.

This explains why Chinese people are perceived as louder: if we do not need intonation to convey the meaning of each word, we can say all the words in a very low voice, using the smallest possible intensity that enables the listener to understand. On the other hand, if we need different levels of intensity to convey the meaning, we cannot stay at the same lowest level of intensity all the time, we need to use several clearly distinguishable levels -- and thus, even when people try to speak as quietly as possible, the average intensity of the talk is louder that the intensity of a similar talk in an Indo-European language.

Литература