The Effects of Culture and Language on Social Impression Formation from Voice Pleasantness: A Study with French and Iranian People

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Abstract: The voice has a major influence on interpersonal communication in everyday life via the perception of pleasantness. The evolutionary perspective postulates that the mechanisms underlying the pleasantness judgments are universal adaptations that have evolved in the service of choosing a mate (through the process of sexual selection). From this point of view, the favorite voices would be those with more marked sexually dimorphic characteristics; for example, in men with lower voice pitch, pitch is the main criterion. On the other hand, one can postulate that the mechanisms involved are gradually established since childhood through exposure to the environment, and thus the prosodic elements could take precedence in everyday life communication as it conveys information about the speaker's attitude (willingness to communicate, interest toward the interlocutors). Our study focuses on voice pleasantness and its relationship with social impression formation, exploring both the spectral aspects (pitch, timbre) and the prosodic ones. In our study, we recorded the voices through two vocal corpus (five vowels and a reading text) of 25 French males speaking French and 25 Iranian males speaking Farsi. French listeners (40 male/40 female) listened to the French voices and made a judgment either on the voice's pleasantness or on the speaker (judgment about his intelligence, honesty, sociability). The regression analyses from our acoustic measures showed that the prosodic elements (for example, the intonation and the speech rate) are the most important criteria concerning pleasantness, whatever the corpus or the listener's gender. Moreover, the correlation analyses showed that the speakers with the voices judged as the most pleasant are considered the most intelligent, sociable, and honest. The voices in Farsi have been judged by 80 other French listeners (40 male/40 female), and we found the same effect of intonation concerning the judgment of pleasantness with the corpus «vowel» whereas with the corpus «text» the pitch is more important than the prosody. It may suggest that voice perception contains some elements invariant across culture/language, whereas others are influenced by the cultural/linguistic background of the listener. Shortly in the future, Iranian people will be asked to listen either to the French voices for half of them or to the Farsi voices for the other half and produce the same judgments as the French listeners. This experimental design could potentially make it possible to distinguish what is linked to culture and what is linked to language in the case of differences in voice perception.

Keywords: cross-cultural psychology, impression formation, pleasantness, voice perception

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