

## ACOUSTICS2008/978 Influences of perceived racial identity on human talker identification

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Talker identification, the process by which human listeners recognize individuals by their voice, is one of the most poorly understood abilities of the human auditory system. Current psychological models of talker identification rely on strict analogies to face perception and the visual system, despite differences in the objects of perception in these two modalities. Here we investigate the existence of an own-race bias in voice perception - a phenomenon which has been pivotal in the study of face perception. Our results demonstrate an own-race bias in talker identification: listeners of different ethnic backgrounds show an advantage for identifying individual voices of the same race as themselves. However, unlike in vision, the own-race bias in talker identification manifests based specifically on the perceived, but not actual, race of a talker. The influence of perceived race suggests physical (voice structural) cues do not give rise to this effect. Instead, the own-race bias in talker identification is a result of listeners' asymmetric exposure to talkers' socially-acquired manners of expression (i.e. the dynamic features of voice and speech). Such manners of expression may be stereotypically associated with a particular ethnic group, although not actually exhibited by all members of that group. [Work supported by NIH]