

Does digitally-manipulated avatar ethnicity affect speech perception?

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In recent years, increasing attention has been given to how a speaker's physical appearance can influence the perception of spoken language. For instance, Babel and Russell (2015) found that the perception of a speaker's degree of accentedness and intelligibility differed depending on the ethnicity of the speaker, while McGowan (2015) discovered that face-voice pairings conforming to listeners' stereotype-based expectations facilitated speech processing, while 'unexpected' pairings resulted in lower intelligibility scores.

These types of matched-guise studies involving audio-visual stimuli have generally used photographs to depict the supposed speaker, despite the drawback of this method not providing 'real-time' speaker information. This study attempted to address this issue by syncing speech samples to realistic-looking digitally animated speakers ('avatars'). Its main purpose was to investigate whether the ethnicity of the avatars could affect how their personality and speech were perceived. Four spontaneous speech samples by four Canadian English speakers were paired with four different avatars (1 Asian, 1 Caucasian, 2 distractors), who listeners rated on 17 semantic differential items that had been adapted from the Speech Evaluation Instrument (Zahn & Hopper, 1985). Four extra items were added to measure perceived accentedness. Listeners' own ethnic background, L1 and degree of *ethnocentrism* –i.e., the extent to which people evaluate everything in relation to their own group and cultural norms– were determined as well, since these factors were hypothesized to play a role in listeners' perception of out-group members.

It was found that the ethnicity of the participants themselves and their L1 were variables affecting the perceived accentedness of the avatars, rather than the avatars' ethnicity. Since other audio-visual matched-guise studies which had made use of photographs and read speech (Babel & Russell, 2015; Kang & Rubin, 2009; McGowan, 2015; Rubin, 1992) *did* find an effect of speaker ethnicity, it should be further investigated to what extent the studies' different methodological approaches have caused these dissimilar findings.

References

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