

Vocal identity dynamics: Can speakers control their vocal recognizability?

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Identity recognition through voice has so far typically been studied in terms of the performance of a human listener or a machine in identifying a person by their voice. In our line of research, we investigate (a) variable characteristics of human voices and their impact on how well voices can be recognised and (b) whether humans control their vocal identity features to be more or less well recognisable in communication situations. We start from the assumption of a mental acoustic voice space in which voices vary around an average voice (norm-based coding) and hypothesise that speakers can adjust their voices to be closer to the average - and thus less distinguishable from others - or further away from the average to find a more unique place that makes them more distinguishable. We show evidence for such adjustments from within-speaker variability of speaking style in which some speaking styles that require strong social bonding lead to better recognition results (e.g. infant-directed speech) compared to styles in which the speaker typically has no interest in being identified and thus forms more average voices (e.g. deception). We found that styles that are targeted at intelligibility (clear speech) were found to be less speaker-specific and resulted in lower voice recognition performance. We conclude that speakers have control over their recognisability by applying different speaking styles and we will show how more refined control of identity markers may play a role in dialogue processing.