

Decoding Emotion : Perceptual and Production Cues in Audio and Electroencephalographic Signals

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Emotion detection has gained increasing attention in linguistics, psychology, and computer science. Since recognizing emotion is the first step in creating effective communication, it has been used to screen customers' emotions in call centers and online customer service channels. However, detecting emotion in speech signals is challenging due to the variability of speech signals. The present study aims to examine the production and perception of emotionally-rich stories. The first goal is to disentangle the acoustic and electroglottographic features involved in affective judgments. The second goal is to investigate how listeners make affective judgments on playback electroglottographic signals (as low-pass filtered signals) and whether these judgments align with those made from acoustic signals. The results of principal components analysis show that pitch and contact quotients were not the most influential factors in affective judgments; instead, shimmer, jitter, and NHR were. Affective judgments based on the playback of electroglottographic signals were highly associated with those made from acoustic signals, suggesting that the source signals (vocal fold vibrations) may have provided rich affective information.