

Speech Prosody off the Top of the Head

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It has long been known that speech related visual information can benefit listeners in a variety of speech perception tasks (Kim & Davis, 2004; Sumbly & Pollack, 1954). More recently, the intelligibility of speech in noise has been shown to increase even when visual information is restricted to the top-half of the talkers face (Davis & Kim, 2006). The current study examined if information related to the prosody of an utterance can be obtained from viewing the talker's upper face. In order to gauge whether prosody-related upper-head motion can be perceived the study used a cross-modal matching task in which participants were required to select the pair in which the prosody (speech mode [question / statement] and focus [broad focus/ narrow focus]) of the auditory and visual stimuli matched (the auditory and visual stimuli were obtained from different tokens). The results showed that, for spoken English, cues as to the prosodic nature of the speech signal are visually available from the upper face. This finding demonstrates that it is possible that such cues could be used by listeners when processing speech. Future research directions will be outlined.