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AGING AND THE NEURAL CORRELATES OF EMOTIONAL PROSODY DISCRIMINTATION

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Introduction: Physiological aging was associated with emotion recognition deficit. Neuroimaging studies have showed that decoding of emotional prosody cues is linked to a frontotemporal network involving superior temporal gyrus and inferior frontal gyrus. However, little is know about the relationship between affective prosodic processing and age-related change in the functional brain.
Aim: The present study aims to investigate the aging brain of early sensory processing of affective prosody.
Methods: Fifty-five healthy volunteers with an age-range between 18 and 75 years old underwent functional magnetic resonance imaging, with a mismatch paradigm, while they were presented with emotional prosodic stimuli. Thus, pseudowords spoken with positive and negative emotions were randomly presented among repeated non-emotional stimuli.
Results: The results showed that automatically processing of changes in affective prosody involves bilateral superior temporal lobes. Furthermore, these brain areas were found to be influenced by the normal aging, *i.e.*, advancing age is associated with reduced temporal lobe response.
Conclusion: Together, these findings suggest the involvement of temporal lobe in detection of emotion in language; and that normal aging affects its functioning.