Categorical Perception of emotional faces is not affected by aging

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Abstract

Effects of normal aging on categorical perception (CP) of facial emotional expressions were investigated. One-hundred healthy participants (20 to 70 years old; five age groups) had to identify morphed expressions ranging from neutrality to happiness, sadness and fear. We analysed percentages and latencies of correct recognition for nonmorphed emotional expressions, percentages and latencies of emotional recognition for morphed-faces, locus of the boundaries along the different continua and the number of intrusions. The results showed that unmorphed happy and fearful faces were better processed than unmorphed sad and neutral faces. For morphed faces, CP was confirmed, as latencies increased as a function of the distance between the displayed morph and the original unmorphed photograph. The locus of categorical boundaries was not affected by age. Aging did not alter the accuracy of recognition for original pictures, no more than the emotional recognition of morphed faces or the rate of intrusions. However, latencies of responses increased with age, for both unmorphed and morphed pictures. In conclusion, CP of facial expressions appears to be spared in aging.

Key Words: Affective neurosciences; Categorical perception; Aging; Emotions; Faces