

Implicit and explicit processing of emotion in healthy adult ageing

ABSTRACT:

Background and Objectives

While the aging literature contains a large number of studies demonstrating age-related differences in the ability to explicitly recognise emotions portrayed through facial expressions, there do not appear to be studies that have compared the ability of younger and older adults to implicitly identify facial expressions of emotion. Eye tracking during explicit emotion recognition studies has shown that older adults gaze less at the eye region of faces than younger adults which may explain their poorer ability to judge certain emotions. Yet, the fixation patterns of younger and older adults during implicit emotional processing remains unclear. Given that previous work in other research areas such as memory has shown that implicit processes are often spared in aging, it is hypothesised that older adults will not differ in their ability to implicitly process emotions compared to younger adults.

Method

In Experiment 1, 24 younger and 24 older adults performed explicit emotion and age categorisation tasks. In Experiment 2, 24 younger and 24 older adults performed implicit emotion and identity matching tasks.

Results

Older adults were significantly poorer at explicitly but not implicitly identifying emotions compared to the younger adults. In terms of eye gaze patterns, older adults showed a reduced bias to inspect the top half of faces than younger adults across all tasks except in the implicit emotion matching task. During implicit emotion matching, older adults showed a negative bias towards the lower half of faces compared to younger adults whose bias was towards the top half.

Conclusions

These results suggest that explicit but not implicit emotion processing declines with age and the fewer fixations towards the top of a face in older adults may explain the age differences found in the explicit but not implicit processing of emotional faces.

Keywords

Implicit emotion, Explicit emotion, Aging, Eye tracking

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