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004 RECOGNITION OF EMOTIONS IN FACES, VOICES AND
MUSIC IN FRONTOTEMPORAL LOBAR
DEGENERATION

R. Omar, S. M. Henley, J. C. Hailstone, D. Sauter, S. K. Scott, N. C. Fox,
M. N. Rossor, J. D. Warren. Dementia Research Centre, Institute of Neurology,
Queen Square, London, UK

Frontotemporal lobar degeneration (FTLD) is a group of neurodegenerative conditions characterised by focal frontal and/or temporal lobe atrophy. Patients develop a range of cognitive and behavioural abnormalities, including prominent difficulties in comprehending and expressing emotions, with significant clinical and social consequences. Here we report a systematic prospective analysis of emotion processing in different input modalities in patients with FTLD. We examined recognition of happiness, sadness, fear and anger in facial expressions, non-verbal vocalisations and music in patients with FTLD and in healthy age matched controls. The FTLD group was significantly impaired in all modalities compared with controls, and this effect was most marked for music. Analysing each emotion separately, recognition of negative emotions was impaired in all three modalities in FTLD, and this effect was most marked for fear and anger. Recognition of happiness was deficient only with music. Our findings support the idea that FTLD causes impaired recognition of emotions across input channels, consistent with a common central representation of emotion concepts. Music may be a sensitive probe of emotional deficits in FTLD, perhaps because it requires a more abstract representation of emotion than do animate stimuli such as faces and voices.

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