Synopsis of Original Research Paper

Neural correlates of facial recognition with and without cosmetics: an fMRI study

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We conducted two functional magnetic resonance imaging (fMRI) experiments to explore neural correlates of facial recognition with cosmetics. In the first experiment, 28 subjects were presented with 144 face photographs (48 with cosmetics, 48 without cosmetics, and 48 scrambled photographs), and were asked to rate each stimulus for attractiveness. The face photographs with cosmetics were rated more attractive than those without cosmetics. Imaging data showed that face photographs with cosmetics, compared with those without cosmetics, activated the orbitofrontal cortex and the hippocampus. In the second experiment, 30 subjects were presented with 180 face photographs (36 with eye, lip, and foundation, 36 with eye and foundation, 36 with lip and foundation, 36 with foundation only, and 36 without cosmetics) and 36 scrambled images, and were asked to rate each stimulus for attractiveness. Imaging data showed that face photographs with eye make-up compared with those without eye make-up activated the hippocampus. We speculate that orbitofrontal activation is associated with increased facial attractiveness and hippocampal activation with enhanced memory encoding.