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The interaction of emotion and pain in the insula and secondary somatosensory cortex

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Abstract

Pain is processed in a large neural network that partially overlaps structures involved in emotion processing. Despite the fact that pain and emotion are known to share neural regions and interact in numerous clinical conditions, relatively little is known about the interaction of pain and emotion at the neural level. This study on healthy adults aimed to investigate the interaction between negative and positive emotional stimuli and experimental pain in an essential pain processing network.

Sixteen healthy young adult subjects were exposed to pictures from the International Affective Picture System with negative, neutral or positive valence, along with laser pain stimuli. The stimuli were pseudo-randomly arranged in three 15-min experiment series comprising 49 stimuli each (picture, laser or simultaneous picture and laser

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