
Does emotion regulation by distraction truly regulate emotion? Selective attention effects on LPP amplitudes.

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Abstract

The Late Positive Potential (LPP) as an EEG indicator of affective arousal holds great potential for emotion regulation research. Numerous reports exist of LPP amplitudes being diminished by experimental manipulations of reappraisal and distraction strategies. However, these results have often been obtained without applying the same manipulations to neutral stimuli. Thus it cannot be ruled out that the observed LPP attenuation results from non-affective changes in information processing. The present study investigates the effects of distraction on LPP amplitudes while viewing affective as well as neutral stimuli. 79 participants (32 males) viewed affective images (IAPS) from five categories (aversive, negative, neutral, positive and erotic). All categories were presented in affective (making affective evaluations) and distractive (making non-affective evaluations) tasks. The order of tasks was counterbalanced. LPP was reduced significantly in the distraction condition only if it was completed prior to giving affective ratings. This carryover effect suggests that once attention has been drawn to affective content, analysis of emotional meaning will continue on the same level even without explicit task requirements. Crucially, the LPP reduction by distraction was uniform across all stimulus categories. As this manipulation did not reduce the arousal sensitivity of LPP it probably influenced some non-affective processes. This finding might also relate to the relative ineffectiveness of distraction as an emotion regulation strategy.

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