The contingent negative variation predicts the effect of appraisal frames on the late positive potential

Lingdan Wu*†[1], Matthias Wieser[1], Markus Winkler[1], and Paul Pauli‡[1]

[1]Department of Psychology, University of Wuerzburg – Germany

Abstract

Appraisal frames are orienting narratives that influence subsequent interpretations of emotional stimuli. Previous studies have indicated that appraisal frames affect interpretations of up-coming stimuli so as to regulate emotions. Considering interconnection of attention and emotion, it is hypothesized that appraisal frames should modulate attention as well as emotion. The present study aims to investigate the effect of appraisal frames (down-regulation vs. maintaining) on attention enhancement and emotion regulation as indexed by the amplitude of the contingent negative variation (CNV) and the late positive potential (LPP). 62 participants were presented with 125 pairs of appraisal frames and visual images reflecting down-regulation conditions (i.e., to down regulate unpleasant and pleasant emotions), and maintaining conditions (i.e., to maintain unpleasant and pleasant emotions). Results indicate that down-regulation conditions evoked larger CNV and smaller LPP in comparison with corresponding maintaining conditions, suggesting that appraisal frames to down-regulate emotion rather than maintain emotion effectively enhance attention and reduce subsequent emotional reaction. Moreover, the increases of CNV are noted to be positively correlated with the decreases of LPP, suggesting that enhanced anticipatory attention by appraisal frames is predictable for subsequent regulation of emotion.

*Speaker

†Corresponding author: lingdan43@gmail.com

‡Corresponding author: pauli@psychologie.uni-wuerzburg.de