



**EXPOSURE TO TRAUMATIC EVENTS AND THE ELECTROENCEPHALOGRAPHIC RESPONSE TO
AVERSIVE CONDITIONING PARADIGMS**

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Exposure to traumatic experiences can lead to significant behavioral and emotional changes, namely to Post-Traumatic Stress Disorder. The Late Positive Potential (LPP) is the event-related potential most consensually referred as a neural correlate of this phenomena. Despite that, a lack of scientific evidence is still noticeable regarding the contribution of the Contingent Negative Variation (CNV) to its comprehension. We intended to explore the relation between the occurrence of traumatic events and the amplitude of the CNV and the LPP event-related potentials. Thirty-four university students participated in the study. All participants completed the Life Experience Survey (LES) and participated in an experiment with EEG recording. In this experiment, the participants were exposed to two aversive conditioning protocols: one with auditory stimuli and the other with facial expressions of anger, both as aversive stimuli. Significant results were found for the conditioning effect of the aversive conditioning protocol with the auditory stimuli, and also to its extinction. The results show a greater sensitivity of the LPP when compared to the CNV for the discrimination between conditioned and unconditioned stimuli. This highlights a stronger association of the LPP with aversive anticipation, which can influence the methodological design of future studies.

Keywords: Late Positive Potential (LPP), Contingent Negative Variation (CNV), event-related potential (ERP), Post-Traumatic Stress Disorder