

EFFECTS OF HYPNOSIS AND HYPNOTIC ANALGESIA  
ON SOMATOSENSORY-EVOKED POTENTIALS DURING  
PAINFUL STIMULATIONS

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Frontal, central and posterior scalp somatosensory-evoked potentials (SEPs) were elicited by painful electric stimulation of the left radial nerve in 5 high- and 5 low-hypnotizable women. The aim of the study was to compare the effect of hypnotic analgesia on pain perception with respect to hypnosis and waking conditions. A further aim of the study was to evaluate how the effect of hypnotic analgesia was reflected on SEPs in the left and right hemisphere. The following variables were measured: (a), pain and distress tolerance; (b), P100-N100, N100-P200 and P200-N300 peak-to-peak amplitudes and (c), N100, P200 and N300 peak latencies. The highly hypnotizable individuals showed significantly smaller N100-P200 peak amplitudes in the right as compared with the left hemisphere, either during waking and hypnosis conditions. These subjects displayed a hemispheric balancing of N100-P200 peak amplitude as a result of hypnotic analgesia. Low hypnotizables, in contrast, showed a hemispheric balancing among all experimental conditions. Significant increases of pain and distress tolerance during hypnotic analgesia as compared to hypnosis and waking states were also obtained. A hypnotically-induced dissociation between the sensory-discriminative and affective-motivational dimensions of pain experience was found for high hypnotizable subjects.

DE PASCALIS, V., CRAWFORD, H.J., & Marucci, F.S. (1993) Effects of hypnosis and hypnotic analgesia on somatosensory evoked potentials during painful stimulations. *International Journal of Psychophysiology*, 14, p. 141.