

**RELATION BETWEEN INDUCED AND EVOKED EXPERIENCES  
UNDER ALTERED STATES OF CONSCIOUSNESS AND NEUROVE-  
GETATIVE AND NEUROENDOCRINE RESPONSES**

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**Abstract**

The study describes the responses of Cortisol (CORT), Prolactin (PRL) and Growth Hormone (GH) to emotions elicited during sessions under a hypnoidal state. The purpose of the study was to provide answers for the following questions: 1) Do sessions with an emotional content have more hormonal surges than baseline sessions? 2) Does the induction of a fantasy of pregnancy and "breast feeding" elicit a PRL response? 3) Are there any associations between surges of different hormones? 4) Are hormonal responses related to the intensity, type or mode of expression of emotions? Thirteen volunteers and twelve patients with minor emotional difficulties were studied. The observation lasted for about three hours. Serum CORT, PRL and GH were sampled every 15 minutes. There were three types of sessions, relaxation only, "breast feeding", and "free associations" in which the subjects were encouraged to evoke good or bad experiences or feelings. The results provide evidence that different hormones (CORT, PRL and GH) respond to psychological stress in humans. However, they are regulated differently from one another. CORT and PRL surges appear to be alternative forms of response to specific emotions. GH surges depend on the intensity of the emotion, probably

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as a consequence of the associated muscular activity. The current paradigm of stress, implying corticotrophin-releasing hormone as the initial step of a cascade of events, is insufficient to account for the diversity of hormonal changes observed in psychological stress in humans.