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אנו שמחים לארח את

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Brain Imaging Correlates of Patients with Emotion-Related Memory Disorders

In an overview, current systems of long-term memory and relationships between memory processing and engagement of brain networks during encoding, storage and retrieval will be described. Thereafter, emotion-related memory impairments, as they appear in patients with dissociative amnesias (psychogenic amnesia, psychogenic fugue syndromes), will be explained.

Major stress or psychic / psychosomatic trauma events are regarded as provoking such amnesias. Static and functional neuroimaging as well as detailed and comprehensive neuropsychological testing were applied to investigate the consequences of negative emotional states on brain and memory. The patients included, all suffered from retrograde autobiographical amnesia while their other memory domains (semantic memory, procedural memory, priming) were either largely unimpaired or could be regained within a short period. After syndrome onset patients frequently appeared emotionally flattened and, though they were able to reacquire knowledge about their past, they did so in a more neutral, unaffected way, which, however, might be interpreted as a mechanism of self-protection. Brain imaging with FDG-positron-emission-tomography revealed a reduced glucose level in frontal and temporal (or temporo-parietal) regions, affecting the right hemisphere more than the left one. Functional imaging with fMRI or ^{15}O-PET showed a differential activation for remembered (or reacquired) as opposed to forgotten material. It is proposed that stress hormone releases and a heightened sensitivity towards stress situations due to exposure to stressful events, particularly during childhood, constitute the brain correlates of these dissociative states.

Consequently, our data show that environmentally induced stress situations may change brain activity and cerebral metabolism persistently. The data also indicate that the brain's circuitry in getting access to previously stored information is altered. Especially fronto-temporal regions of the right hemisphere may be sensitive to autobiographical old memory processing.

* For a list of publications please see the link below:

http://www.uni-bielefeld.de/psychologie/ae/AE14/PUBLIKATIONEN/Publik_Markowitsch.htm

ההרצאה תתקיים ביום ה' ה- 29 לדצמבר 2005 **בשעה 12:00**
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המעוניינים באישור כניסה לאוניברסיטה יתקשרו לאתי 04-8249430

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