

## Dissociation, Memory and Trauma Narrative

Memory is not a unity, but is considered to be composed of several systems, which differ both phylogenetically and ontogenetically. The episodic-autobiographical memory is defined as the conjunction of subjective time, auto-noetic consciousness and the experiencing self. It is arguably uniquely human and regarded as the highest human ontogenetic achievement. The emergence of episodic-autobiographical memory occurs in the context of securing a particular level of self awareness and is supported and enriched by the acquirement of language abilities. On its turn, the episodic-autobiographical memory facilitates further self-development and is viewed – at least in highly individualized societies – as playing a key role in maintaining a consistent feeling of identity and a coherent awareness of self's continuity and sameness over time. The episodic-autobiographical memory is vulnerable to both neurological and environmental insults (such as psychological trauma or stress) and susceptible to re-shaping, distortions and misinformation. The disturbances of episodic-autobiographical memory that are triggered by psychic incidents can be multifaceted with respect to both their clinical course and manifestations, ranging from hypermnesia for traumatic events to a total memory retrieval blockade (such as in dissociative or psychogenic amnesia). The degree to which chronic repeated stress or severe acute psychological stress may afflict an individual's homeostasis and precipitate one form or another of psychiatric or non-psychiatric medical symptoms is modulated by a gamut of factors, such as genetic dispositions, type and duration of stress, developmental stage, age, gender, context, prior experiences and personality features. Genetic factors might influence not only hormonal stress responses, but also brain structure, plasticity and function. We posit that the memory impairment in psychogenic (dissociative) amnesia primarily reflects a stress hormone-triggered and -mediated memory blockade, underpinned by a desynchronization during retrieval between a frontal cortex lobe system, important for auto-noetic consciousness, and a temporo-amygdalar system, important for emotional processing and colorization. We however conjecture that at least in a subset of patients with (psychogenic) dissociative amnesia, the mnemonic deficit is not exclusively underlain by dissociation, but might reflect other psychological mechanisms, such as motivated forgetting or memory suppression.

As our research patient data suggest, the mnemonic impairment in psychogenic (dissociative) amnesia typically does not occur in isolation, but might be accompanied by changes in personality, self-consciousness, ability for mental time traveling, emotional processing and capacity for judging the feelings and intentions of others. These findings reinforce older views and descriptions of this condition as representing a disorder of personal synthesis, characterized by the failure of in-

tegration of functions pertaining to cognition (memory), self, consciousness and emotion and causally-linked to traumatic experiences, often with onset in childhood. The awareness of trauma among various groups, disciplines and individuals has been spurred by several post World War II events, which resulted in an increase in autobiographical accounts of trauma or autobiographical fictional writings about trauma. As we exemplify below, the manner in which trauma is conceptualized and narrated in these writings is heavily influenced not only by personal experiences and personality features, but also by culturally carved models of trauma and illness, the cultural molding of the self and ›narrative storylines‹ and personal acquaintance with the discoveries in the sciences of memory, which have been increasingly ›leaking‹ into the world through the means of the media.

Comprehending memory lacunae, flashbacks or various physical symptoms as stemming from an event that happened in the past might have as a consequence the so-called ›re-contextualization of health memory‹; during this process the event is evoked, emotionally (re)-appraised and re-encoded in a new context. Furthermore a specific meaning is attached to the event which becomes part of a narrative that may be transmitted to the upcoming generation. Advances in the field of genetics and epigenetics suggest that the intergenerational transmission of trauma however might transcend the entrusting of a linguistic account of trauma and might be partly underlain by transmittable environmentally-driven modifications in gene expression via epigenetic mechanisms, which might lead to abnormal hormonal stress responses across generations. The abilities to remember a highly affectively loaded event or to emotionally disengage from it by adopting a third person retrieval perspective seem to also be modulated by both genetic and environmental factors. The strides made by the field of epigenetic, which is concerned with studying the environmentally-steered changes in gene expression have significant implications for the nature-nurture controversy surrounding the causality of trauma that has permeated not only scientific writings, but also depictions of trauma in movies and autobiographical genre. As we outline below, the recent epigenetic and neuroscientific data foster a reframing of the nature – nurture debate, by showing that the two (nature, such as genes, and nurture, such as environment) are far from being severable or discrete, but rather they interplay in a complex, often synergistic fashion.

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