

A neural network model for transference and repetition compulsion based on pattern completion (Review)

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Abstract

In recent years because of the fascinating growth of the body of neuroscientific knowledge, psychoanalytic scientists have worked on models for the neurological substrates of key psychoanalytic concepts. Transference is an important example. In this article, the psychological process of transference is described, employing the neurological function of pattern completion in hippocampal and thalamo-cortical pathways. Similarly, repetition compulsion is seen as another type of such neurological function; however, it is understood as an attempt for mastery of the unknown, rather than simply for mastery of past experiences and perceptions. Based on this suggested model of neurological function, the myth of the psychoanalyst as blank screen is seen as impossible and ineffective, based on neurofunctional understandings of neuropsychological process. The mutative effect of psychoanalytic therapy, correcting patterns of pathological relatedness, is described briefly from conscious and unconscious perspectives. While cognitive understanding (insight) helps to modify transferentially restored, maladaptive patterns of relatedness, the development of more adaptive patterns is also contingent upon an affective experience (working through), which alters the neurological substrates of unconscious, pathological affective patterns and their neurological functional correlates. © 2008 The American Academy of Psychoanalysis and Dynamic Psychiatry.

Indexed Keywords

EMTREE medical terms: adaptive behavior; article; artificial neural network; biological model; brain cortex; cognition; compulsion; ego development; hippocampus; human; human relation; methodology; nerve tract; neuropsychology; object relation; physiology; psychoanalysis; psychoanalytic theory; psychological aspect; psychotherapy; thalamus

MeSH: Adaptation, Psychological; Cerebral Cortex; Cognition; Compulsive Behavior; Freudian Theory; Hippocampus; Humans; Models, Neurological; Neural Networks (Computer); Neural Pathways; Neuropsychology; Object Attachment; Professional-Patient Relations; Psychoanalytic Therapy; Self Psychology; Thalamus; Transference (Psychology); Unconscious (Psychology)

Medline is the source for the MeSH terms of this document.

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