ABSTRACT

The dominant view of addiction as a brain disease rests on brain changes ostensibly caused by drug use, while alternative accounts focus almost exclusively on social-environmental factors such as isolation, trauma, and developmental adversity. Both views are incomplete. The (human) organism and its environment are connected at every level and interact continuously. Classical learning theories have limited value for modeling brain-environment interactions, as they view the learner as an independent agent responding to a static environment. In contrast, principles of embodied cognition construe learning as a process of reciprocal adjustments between the activities of the organism and relevant features of the environment. From this perspective, addiction can be modeled as a narrowing trajectory of causal interactions between brain changes (in the service of need fulfillment) and diminishing social-environmental opportunities and affordances.

BIOGRAPHY

Marc Lewis, PhD, is a neuroscientist and professor of developmental psychology. He has authored or coauthored more than fifty journal articles in neuroscience and developmental psychology. Presently, he speaks and blogs on topics in addiction science, and his critically acclaimed book, Memoirs of an Addicted Brain, is the first to blend memoir and science in addiction studies. His newly released book, The Biology of Desire, debunks the currently popular disease model of addiction.