Brain Research and Global Mythologies:
The Case of Hero, Dragon, and Monster Myths

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Abstract

Remarkable similarities show up in hero, dragon/serpent, and monster myths in civilizations widely separated in space and time in premodern Africa, Eurasia, Oceania, Australia, and North, Central, and South America. Establishing genuine historical links between outwardly similar myths requires the development of rigorous methods to distinguish similarities involving direct or indirect transmissions from those emerging from neurobiological processes or from oral/literate transformations that over long periods change myths in predictable convergent directions. This paper expands on this issue by reviewing recent brain studies that throw light on global similarities in myths that show up often even when long-range transmissions seem impossible. Special attention is paid to recent brain-imaging studies that suggest how perceptual responses are similarly altered by behaviorally evoked waking-visions, the ingestion of hallucinogenic drugs, the emergence of common psychoses, and by other dream-like states known from extensive ethnographical data to be involved globally in myth generation. Examples are given from those studies of why we can expect hybrid monsters, including those with serpent- or snake-like elements, and other common features of myths to emerge from these altered perceptual states. The talk ends with a discussion of how neurobiology can help rigorously test claims of global transmissions in myths even in the face of the dirty literate, ethnographic, and computational data typically employed in comparative mythology, expanding on a theme introduced in the first official meeting of this forum in Edinburgh in 2007 (http://www.safarmer.com/Indo-Eurasian/Farmer.Edin.abstract.pdf).