**Commentary on Singh (in press) The cultural evolution of shamanism**

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**Shamanism and the psychosis continuum**

**Abstract**

Singh's cultural evolutionary account of shamanism does not explain why some people become shamans while others do not. We propose that individual differences in where people lie on a "psychosis continuum" could play an important causal role.

**Body**

Briefly stated, my position is that the shaman is mentally deranged.

—Devereux (2000[1956], p. 226)

When the shaman is healing he is out of his mind, *but he is not crazy.*

— Inuit informant reported by Murphy (1976, p. 1022)

Singh's cultural evolutionary theory of shamanism provides a nuanced explanation for the recurrence of shamanistic practices across diverse cultures. Nonetheless, while his stated aim is to build a comprehensive theory of shamanism, his theory has a lacuna: it does not offer a satisfying account of *who* becomes a shaman.Singh mentions that it may be easier for individuals with "psychological peculiarities" to become shamans, but he says little about what these peculiarities entail or why they are important. In this commentary we propose that continuum models of psychosis could illuminate the psychological profile of individuals who are most likely to pursue the shaman vocation.

The notion that shamanism is associated with psychosis – a serious loss of contact with reality typically involving hallucinations and delusions – has long been contentious. One of the earliest proposals in this vein was made by Silverman (1967), who argued that shamanism is a manifestation of schizophrenia (the primary psychiatric diagnosis associated with psychosis). Silverman claimed that shamanism and schizophrenia have closely related underlying causes, experiential profiles, and behavioral manifestations. Indeed, he suggested that the only substantial difference between shamans and patients with schizophrenia is that shamans attain a greater level of cultural acceptance for their aberrant behaviors. Silverman’s theory was built on psychoanalytic foundations that have subsequently fallen out of favor. More recently, Polimeni and colleagues (Polimeni, 2012; Polimeni & Reiss, 2002) have drawn on contemporary cognitive and evolutionary theories of religion to develop a perspective that also links shamanism and schizophrenia. Polimeni (2012) argues that, "people with a … biological propensity towards psychosis were almost always placed in the role of shaman" (p. 168) and "the anthropological literature on shamanism reveals repeated patterns of psychotic experiences – commonly auditory hallucinations – occurring in young people soon to be shamans" (p. 154).

Proposals that shamanism is closely related to schizophrenia have met with sustained criticism (Luhrmann, 2011). Noll (1983) provided a particularly influential critique. He argued that there are several important differences between shamanic trance and psychotic episodes: shamanic trances often have a voluntary onset and offset, are not overly negative, are consistent with cultural expectations about appropriate behavior for shamans, and serve community needs by procuring information and blessings from the spirit world. By contrast, Noll notes that episodes of psychosis are typically involuntary and highly distressing, are interpreted as “madness” by the community, and do not serve any obvious social function. That understandings of shamanic trance and “madness” are culturally negotiated is highly relevant. As we have argued elsewhere, scholars should be particularly cautious about pathologizing religious beliefs – just because it is notoriously difficult to identify a precise dividing line between religious beliefs and delusions does not mean that they are the same thing (Ross & McKay, 2017).

We suggest that there is a middle path between equating shamanism with schizophrenia and disavowing any relationship whatsoever. Converging lines of evidence suggest that the positive symptoms of psychosis (in particular, delusions and hallucinations) lie at the extreme end of a continuum of psychosis-like phenomena in the general population (Linscott & van Os, 2013; van Os, Hanssen, Bijl, & Ravelli, 2000; van Os & Reininghaus, 2016). We propose that individuals nearer the psychosis end of this "psychosis continuum" are more likely to become shamans than people who are not. There may be at least two reasons for this. First, frequent and vivid psychosis-like experiences could be interpreted as evidence of "special gifts," which could signal that shamanic training would be appropriate. Second, the process of shamanic training could intensify and refine psychosis-like experiences such that they are increasingly under voluntary control and more appropriate to cultural expectations about shamanism. Studies of prayer training in evangelical Christians provide evidence for each of these proposals. Imagination-based prayer practice (as opposed to conventional Bible study) increases the vividness of mental imagery, the frequency of the use of imagery, and the frequency of unusual sensory experiences associated with feeling God’s presence. Individual differences in "sensory absorption" are positively associated with the magnitude of some of these effects (Luhrmann, Nusbaum, & Thisted, 2010, 2013). On a related note, we suggest that shamanic training may cultivate an "intuitive cognitive style" (Stanovich, 2011) – a cognitive style that has been linked to the endorsement of paranormal explanations for anomalous experiences (Ross, Hartig, & McKay, 2017) and supernatural belief (Pennycook, Ross, Koehler, & Fugelsang, 2016) in contemporary Western populations.

We are not aware of any individual differences research on shamanism in traditional societies. However, quantitative evidence for a relationship between shamanism and a psychosis continuum comes from research on a shaman-like role in the West: the psychic. Some people in Western societies have experiences of contact with the supernatural. Much like shamans in traditional societies, such individuals may undertake training to cultivate these experiences and make a vocation of contacting the spirit world to help members of their community. A recent study of clairaudient psychics (people who report hearing voices from other realms) revealed that this group had hallucinatory experiences that share phenomenological characteristics with patients diagnosed with psychotic disorders (Powers, Kelley, & Corlett, 2017). Nonetheless, there were important differences. For example, psychics had more control over the onset and offset of their voices, and their voices were less distressing – a pattern that looks remarkably similar to patterns of differences between shamanism and psychosis (Noll, 1983).

In this commentary, we have proposed that Singh's cultural evolutionary theory of shamanism could be enhanced by drawing from continuum theories of psychosis to make predictions about *who* takes up this particular vocation. Nonetheless, caution is warranted. As we have noted, there appear to be important phenomenological differences between clinical hallucinations and non-clinical hallucination-like experiences. Consequently, a more nuanced, multidimensional model that treats psychosis as a complex constellation of phenomena rather than a particular "thing" will likely be needed to understand the causal pathways underlying psychosis in clinical populations and psychosis-like experiences in the general population (Luhrmann, 2017) and, we would add, shamanism.

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