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Some Rudimentary Problems Pertaining to the Construction of an Ontology and Epistemology of Shamanic Journeying Imagery

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Attempts to elucidate the kinds of “thing” or “things” to which the term *shamanic journeying image* is referentially linked must grapple with two related questions: what is the fundamental nature of shamanic journeying images, and how might the origin of a shamanic journeying image be found? The first question is ontological, concerned with the nature and essence of shamanic journeying images. In contrast, the second is epistemological and methodological, concerned with how to acquire knowledge of shamanic journeying images. We demonstrate how inductive and deductive reasoning, the private language argument, and reification render problematic the resolution of both. Finally, we present a method to preliminarily formulate an ontology and epistemology of shamanic journeying imagery.

The term *shamanism* typically refers to “a group of techniques by which its practitioners enter the ‘spirit world,’ purportedly obtaining information that is used to help and to heal members of their social group” (Krippner, 2000, p. 93). Several researchers (e.g., Heinze, 1991; Ripinsky-Naxon, 1993) argue that this information is accessed during altered states of consciousness (ASCs), principally those ASCs involving *soul flight* (i.e., *ecstatic journeying*; Krippner, 2002). That is to say, shamanic practices (e.g., ingesting psychoactive plants, sonic driving, ritualized dancing) ostensibly produce shifts in consciousness which Harner (1990) referred to as *shamanic states of consciousness*. In other papers (e.g., Rock & Krippner, 2007a, 2007b), we have provided our rationale for replacing the term shamanic state of consciousness with *shamanic pattern of phenomenal properties*, and will use the latter term throughout this article.

Noll (1985) asserted that an integral feature of shamanism is the utilization of “...techniques for inducing, maintaining, and interpreting the experience of enhanced visual mental imagery” (p. 445). Similarly, Peters (1989) stated that, “The shaman is a visualizer...” (p. 130) who relies on this modality to access transpersonal realms. Indeed, Houran, Lange, and

Crist-Houran (1997) analyzed 30 phenomenological reports concerning shamanic journeying, derived from Harner (1990), and found that 93.3% emphasized visual phenomena. Shamanic visualizations (i.e., journeying imagery) typically reflect one’s cultural cosmology (Krippner, 1990; Walsh, 1995, 2007), which tends to be a multi-layered universe consisting of an *upper world*, *middle world* (the terrestrial world or Earth) and *lower world* (Ellwood, 1987).²

In recent years, shamanic practices have generated increasing interest as a complementary therapeutic strategy in the traditional medical and psychological arenas (Bittman et al., 2001). Consequently, it may prove prudent to further investigate the nature of shamanic patterns of phenomenal properties (e.g., *journeying imagery*). Nevertheless, to our knowledge, there exists a lacuna in the literature with regards to a systematic analysis of the philosophical problems that hamper the development of an ontology and epistemology of shamanic journeying imagery.

Ontology may be defined as “the matter of what there is in the world” (Chalmers, 1996, p. 41); it is concerned with “an overall conception of how things are” (Heil, 1998, p. 6). The term *ontological foundations* refers to the fundamental nature or essence of a particular

variable, X (e.g., a shamanic journey image). For example, an ontologist might be concerned with whether the kind of thing that a shamanic journeying image is referentially linked to is imaginal (e.g., derived from material stored in one's long-term memory system) or transpersonal (i.e., independent of the percipient's mind-body complex) (Walsh, 1990).

In contrast, epistemology may be defined as the study of the "origins, nature, methods, and limits of human knowledge" (Reber & Reber, 2001, p. 246). With regards to shamanic patterns of phenomenal properties, one might, for example, investigate the epistemological process that results in a percipient becoming aware of a shamanic journeying image. While epistemological debates in the philosophy of religion have tended to focus on mystical experience (e.g., Evans, 1989; Forman, 1996; Gill, 1984; Katz, 1978, 1983; Stoeber, 1991), one might contend that the epistemological problems discussed are also applicable to shamanic patterns of phenomenal properties. For example, there is no reason in principle why the epistemological issue of whether mystical experience is *shaped* conceptually and linguistically by one's cultural milieu is not applicable to shamanic patterns of phenomenal properties. Indeed, a recent series of papers (e.g., Rock & Baynes, 2005, 2007) investigated the extent to which shamanic journeying imagery is shaped by contextual influences (e.g., the shaman's cultural cosmology and autobiographical memories).³

The purpose of this paper is to demonstrate how various philosophical problems impede the formulation of an ontology and epistemology of shamanic journeying imagery. We proceed by demonstrating that the problem of induction constitutes an inherent limitation associated with recent experimental studies investigating the origin of shamanic journeying imagery. Subsequently, we develop and critique a deductive argument concerning the ontology of shamanic journeying imagery. Wittgenstein's (1958) private language argument and the fallacy of reification are also considered in the context of shamanic journeying imagery. Finally, we present a methodology that arguably constitutes a preliminary step towards the formulation of an ontology and epistemology of shamanic journeying imagery.

Previous Experimental Research Concerning the Origins of Shamanic Journeying Imagery

Attempts to elucidate the kinds of thing or things that the term shamanic journeying image is referentially
Shamanic Journeying Imagery

linked to may prompt one to address two intimately related questions: (1) What is the fundamental nature of shamanic journeying images? (2) How might one find the origin of a shamanic journeying image? The first question is ontological; that is, it is concerned with the nature and essence of the shamanic journeying image. In contrast, the second is an epistemological and methodological question; it relates to how one might acquire certain knowledge. It is arguable that 1 and 2 are inextricably bound at a fundamental level. That is to say, answering 2 presumably provides one with the methodology necessary to address 1.

Rock and Baynes (2005, 2007) addressed 2 by developing a non-hypnotic version of Watkins' (1971) Affect Bridge (a hypnotic technique used to uncover the origin of an affect) for the purpose of investigating the origins of shamanic journeying imagery. The Modified Affect Bridge was developed as one potential *partial* solution to 2; it was not designed to facilitate unrestricted access to one's unconscious material, but rather to facilitate ordinary remembering among ordinary participants in a non-clinical context. The Modified Affect Bridge was first applied in an experimental context by Rock, Casey and Baynes (2006) and, subsequently, Rock (2006).

Rock, Casey, and Baynes (2006) reported that ostensibly shamanic journey images encountered by naïve participants journeying to the lower world with the aid of monotonous drumming at 8 beats-per-second for 15 minutes were just as likely to be derived from autobiographical memories as spontaneous visual mental images reported by naïve participants assigned to the control condition of sitting quietly with eyes open for 15 minutes. This finding suggests that the epistemological process that results in one being consciously aware of an ostensibly shamanic journeying image involves memory recall and superimposition within one's phenomenal space. Consequently, the journeying images may be tentatively assigned an imaginal ontological status. Subsequently, Rock (2006) randomly allocated participants to counterbalanced factorial combinations of a repeated-measures factor and a between-groups factor. The repeated-measures factor consisted of four stimulus conditions (i.e., monotonous drumming, Ganzfeld, relaxation, sitting quietly with eyes open). The between-groups factor consisted of three sets of instructions (i.e., journeying to the lower world with or without religious instructions, no instructions). It was concluded that visual mental images encountered while journeying to the lower world were derived primarily from autobiographical

memories. Other visual mental images were tentatively labelled as symbolic, transpersonal, and indeterminate.

The results of Rock, Casey, and Baynes (2006) and Rock (2006) facilitated the development of a tentative four-fold *ostensibly shamanic journeying imagery origin* typology consisting of autobiographical, symbolic, transpersonal and indeterminate sources. An ostensibly shamanic journeying image may be categorized as autobiographical if it appears to be the derivative of an autobiographical memory, that is, a “memory for events that have occurred in one’s life” (Reber & Reber, 2001, p. 423). The symbolic characterization of an ostensibly shamanic journeying image is invoked if the image seems to perform a symbolic function without appearing to mentally represent a previous sensory experience. An ostensibly shamanic journeying image may be conceptualized as transpersonal if the image appears to be linked to something that exists independently of the participant’s mind-body complex. Finally, an indeterminate status is conferred upon an ostensibly shamanic journeying image if the participant is unable to isolate its origin (Rock & Baynes, 2007).

Given that the Modified Affect Bridge was formulated as a potential *partial* solution to 2, and has yielded four imagery-origin categories thereby addressing 1, it might be asked, “How might one resolve the ontological foundations of shamanic journeying imagery?” In this context, it may be efficacious to consider Mercante’s (2008) suggestion that a persuasive argument for considering imagery associated with the Ayahuasca experience (i.e., *miração*, singular; *mirações*, plural) an “involuntary and spontaneous process is that voluntary events rely on memory” (pp. 6-7). Extrapolating from Farthing’s (1992) discussion of mental imagery to *miração*, Mercante (2008) wrote:

If the arrival and dissipation of *mirações* were subject to the command of the individual, it would follow that no “alien” elements (outside a person’s familiar universe) would be present.... The idea is that one can only voluntarily manipulate images that are impressed upon the memory through sensation. Not that a person cannot assemble new patterns from recorded sensory data, but he or she cannot manufacture fundamental data beyond the pale of experience. The revelatory qualities of the *miração* would be lost or at least considered illusory if the experience of it were limited to the cache of existing memory (pp. 6-7).

One may apply Mercante’s (2008) argument to shamanic journeying imagery and contend that if

shamanic journeying images are immune to voluntarily manipulation, then shamanic journeying images are not constructed from material derived from a percipient’s long-term memory system. Ethnographic data, however, suggests that shamans tend to cultivate a mastery over journeying images (e.g., Noll, 1985), thus indicating—provided one accepts Mercante’s (2008) preceding argument—that shamanic journeying imagery is the result of an epistemological process involving memory recall and superimposition within a percipient’s phenomenal space.

Furthermore, it is arguable that even if the outward appearance of a shamanic journeying image, X , is derived from material stored in a percipient’s long-term memory system, this does not necessarily preclude the ontological foundations of X from being transpersonal. For example, if a shaman or experimental participant encounters a predatory creature during a journey to the lower world—and the outward appearance of this predatory creature is the derivative of an autobiographical memory—it remains possible that the predatory creature is merely the manifestation or persona of an external entity. Strassman (2001), for instance, suggested that entities encountered during dimethyltryptamine-induced patterns of phenomenal properties tend to manifest in forms recognizable to the percipient (e.g., “elves,” “aliens,” “angels,” “deceased relatives”), and yet may reside in parallel universes or dark matter realms.

Problems of Induction and Deduction

Let us assume, for the sake of argument, that there are six necessary conditions (hereafter $N_1 \dots N_6$) for a visual mental image to qualify as a shamanic journeying image and that the conjunction of $N_1 \dots N_6$ constitutes a sufficient condition. Let us further assume that N_6 states that the ontological foundations of a visual mental image, X , must be Y (where Y is currently unknown). An ontologist might be concerned with whether the kind of thing (i.e., denoted by Y) that a shamanic journeying image is referentially linked to is imaginal (i.e., a projection of the shaman’s mental set) or transpersonal (i.e., independent of the shaman’s mind-body complex) (Walsh, 1990).

Future research might formulate an *a posteriori* derived definition for Y by comparing X s that satisfy $N_1 \dots N_5$ (group 1) with X s that satisfy four or less of the aforementioned necessary conditions (group 2). Specifically, one may use the Modified Affect Bridge to investigate whether group 1 is associated with different

categories of Y s compared to group 2. Given that group 2 does not satisfy $N_1 \dots N_5$ (N_6 notwithstanding), the ostensible shamanic journeying image status of this group is falsified. In contrast, the constituents of group 1 have not been falsified because they satisfy $N_1 \dots N_5$. If it is observed that all of the constituents of groups 1 are derived from, for example, a transpersonal source, then one might tentatively infer that Y is a transpersonal source and, thus, N_6 would state that the ontological foundations of a visual mental image, X , must be transpersonal. However, if, for instance, some constituents of group 1 appear to be derived from a transpersonal source, while other constituents of group 1 do not, then it may be such that the transpersonal constituents of group 1 are shamanic journeying images and, thus, Y is a transpersonal source; whereas the non-transpersonal constituents of group 1 are merely visual mental images. That is, if N_6 , in fact, states that the ontological foundations of a visual mental image, X , must be transpersonal, then the transpersonal constituents of Group 1 satisfy $N_1 \dots N_6$, which is a sufficient condition for qualifying as a shamanic journeying image. In contrast, the ostensible shamanic status of the non-transpersonal constituents of group 1 would be falsified on the grounds that these constituents fail to satisfy N_6 . It is, of course, logically possible that Y , in fact, denotes a *non*-transpersonal source and, thus, the non-transpersonal constituents of group 1 satisfy $N_1 \dots N_6$, while the transpersonal constituents of group 1 would be falsified.

However, if one were able to definitively demonstrate that shamanic journeying images $X_1, X_2, X_3, \dots, X_{10}$ were all derived from, for example, transpersonal sources, then to presuppose that X_{11} is also derived from a transpersonal source is to commit the fallacy of induction, that is, moving from particular instances to general principles. For example, Rosenberg (2000) suggested that the observation “that the sun has risen many days in the past is good grounds to believe it will do so tomorrow, but does not make it logically certain that it will” (p. 177). Consequently, induction is inherently limited. Additionally, if the ontological foundations were different for $X_1, X_2, X_3, \dots, X_{10}$ (e.g., autobiographical for X_1 and X_2 , symbolic for X_{10} , indeterminate for X_7 and X_8), then one might contend that such variability hampers N_6 's usefulness as a necessary condition.

Similarly, deductive models (i.e., moving from general principles to particular instances) are inherently limited. For example, one may formulate a logically valid argument concerning the identity of Y but there is no

guarantee that such an argument is logically sound. Consider the following deductive argument:

1. All shamanic journeying images are derived from transpersonal sources;
2. X is a shamanic journeying image;
3. Therefore X is derived from a transpersonal source.

It may be observed that while the preceding argument's conclusion follows logically from its premises, it may of course be such that all shamanic journeying images are not derived from transpersonal sources.

The aforementioned problems associated with attempts to formulate an ontology and epistemology of shamanic journeying imagery using inductive or deductive reasoning are further complicated by Wittgenstein's (1958) private language argument and the fallacy of reification.

The Private Language Argument

In a private language it is held that terms “refer to what I can only be known to the person speaking; to his immediate private sensations. So another person cannot understand the language” (Wittgenstein, 1958, pp. 88-89). The notion of a private language is underpinned by an argument for solipsism: “I can only believe that someone else is in pain, but I know if I am” (Wittgenstein, 1958, p. 102). A privileged observer (i.e., first-person) may, for example, establish a link between the term *pain* and the phenomenal properties of pain. However, it is possible that the privileged observer's private definition may be erroneously applied in subsequent instances due to false memory impressions concerning the phenomenal properties of pain (Malcolm, 1981). Consequently, Wittgenstein (1958) asserted that one should, “always get rid of the idea of a private object in this way: assume that it constantly changes, but that you do not notice the change because your memory constantly deceives you” (p. 207). To summarize, Wittgenstein's (1958) private language argument undermined: (1) the ability of a nonprivileged observer to correctly apprehend the meanings of terms applied to phenomenal properties by a privileged observer; and (2) the reliability of a privileged observer's application of terms to the phenomenal properties known by his or her conscious awareness.

The epistemological presuppositions associated with shamanic journeying imagery are two-fold and inextricably related at a fundamental level: (1) a privileged observer can, via introspection, know a shamanic

journeying image; and (2) a privileged observer may communicate the introspected shamanic journeying image to a nonprivileged observer. Clearly, in order to categorize an image as shamanic one must first learn the meaning of the term *shamanic*. A nonprivileged observer might endeavor to learn the meaning of “objects” commensurate with a shamanic journeying image, *X*, by attempting to correctly apprehend the meanings of linguistic terms applied by a privileged observer to the set of constituents associated with *X*, *xyz*. However, as previously stated, Wittgenstein (1958) asserted that such terms “refer to what can only be known to the person speaking; to his immediate private sensations. So another person cannot understand the language” (pp. 88-89). That is, while a nonprivileged observer may be informed that *X* exhibits a certain set of constituents, *xyz*, Wittgenstein’s (1958) private language argument undermined a nonprivileged observer’s ability to correctly apprehend the meanings of linguistic terms applied to *xyz* by a privileged observer. Consequently, while it is possible that a nonprivileged observer may subsequently engage in the privileged observation of *xyz*, and thus *X*, it is impossible to verify that such a mental event has occurred. This epistemological problem is compounded by the suggestion that a privileged observer’s false memory impressions concerning *xyz*, and thus *X*, may result in the unreliable application of linguistic terms to *xyz*, and thus *X*, in future instances.

This raises a further epistemological problem. Tart (1975) emphasized the state-specificity of knowledge, while Fischer (1980) asserted that one may experience difficulty recalling events that occur “in another state of arousal” (p. 306). Consequently, the probability of a privileged observer unreliably recalling a phenomenal property associated with what Tart (1975) referred to as a particular state of consciousness, SoC₁, due to a false memory impression, may exponentially increase when functioning in a SoC other than SoC₁ (e.g., SoC₂..._n). Consequently, this may compromise a privileged observer’s ability to retrospectively assess an image as shamanic while functioning in ordinary waking consciousness.

The Fallacy of Reification

Reichenbach (1951) employed the axiom *substantialization of abstracta* to denote the fallacy of reification whereby an abstract noun (e.g., consciousness) is confused with a thing-like entity. Similarly, Whitehead (1946) referred to reification as the *fallacy of misplaced*

concreteness, which he defined as “...the accidental error of mistaking the abstract for the concrete” (p. 66).

An awareness of the fallacy associated with reifying consciousness may be observed in James’ (1890) contention that “consciousness does not exist,” which Chalmers (1996) suggested is interpretable as an attempt to argue that consciousness does not exemplify the property of thing-ness. Indeed, Klein (1984) stated that James (1890) avoided committing the fallacy of reification by asserting that consciousness is a function or process of knowing, rather than a thing-like entity.

One might argue, with some justification, that experimental studies of shamanic journeying imagery that use, for example, Pekala’s (1991) *Phenomenology of Consciousness Inventory* (PCI; a 53-item questionnaire that purportedly quantifies the structures of consciousness) commit an ontological mistake by concretizing mental phenomena (e.g., visual mental imagery), thereby conflating mentalism with materialism. Pekala (1991) has committed the fallacy of reification (Eacker, 1972) or misplaced concreteness (Whitehead, 1946) by attempting to quantify consciousness, and thus contravenes James’ (1890) contention that consciousness is not a thing-like entity, but rather a function or process of knowing (Klein, 1984). Indeed, Pekala (1991) has routinely engaged in the kind of fallacious reasoning whereby an abstract noun (e.g., “state absorption,” “rationality,” “positive affect”) is reified and ascribed a numerical value. The problem of reification would appear difficult to circumvent, however, given that, presently, mental phenomena cannot be investigated via the scientific method—and thus measured—until they are reified by the assignment of operational definitions commensurate with the ontological status of thing-like entities.

While Wittgenstein’s (1958) private language argument and the fallacy of reification problematize the findings of shamanic research, it does not necessarily follow that the findings are rendered spurious. Indeed, a more measured approach might be to develop an appreciation of these issues and merely interpret one’s results with a suitable level of caution.

A Way Forward

Prior to formulating an ontology and epistemology of shamanic journeying images one must develop criteria designed to distinguish shamanic journeying images from other images. That is to say, one cannot investigate a particular phenomenon if one is bereft

of a methodology that may be used to identify that phenomenon.

One may assess the ostensible shamanic status of visual mental images using Rock and Krippner's (2008) criteria for the necessary conditions for shamanic journeying imagery. The first necessary condition (N_1) states that a visual mental image, X , must be integrated with other visual mental images. The term *integrated* is invoked to underscore that during shamanic journeying experiences various visual mental images coalesce to form cohesive "geographies" or "landscapes." N_2 states that the outward appearance (i.e., form or garb) of X must be consistent with a shamanic cosmology. N_3 states that X must be consistent with the purpose of the specific shamanic journey. Finally, N_4 states that the function of X must be consistent with X . The term *function* is employed to indicate the activities or actions expected of X according to a specific shamanic cosmology. If an X satisfies $N_1...N_4$, then the purported shamanic journeying status of X is not falsified. It is noteworthy, however, that it does not necessarily follow that X is a shamanic journeying image because the conjunction of $N_1...N_4$ may not constitute a sufficient condition (i.e., there may exist other necessary conditions that have been overlooked).

Future research may use Rock and Krippner's (2008) criteria to evaluate X s reported by participants exposed to shamanic techniques (e.g., rhythmic drumming). Subsequently, the ontological status of X s that satisfy $N_1...N_4$ could be explored. Methodological advances in the field of consciousness studies provide an indication of how this secondary aim might be accomplished. For example, as previously stated, Pekala (1991) developed the PCI to ostensibly quantify the structures of consciousness. The PCI contains a three-item dimension that purportedly quantifies one's *subjective sense* of an altered state of awareness (SSAS; e.g., "I felt in an extremely different and unusual state of consciousness"). However, there is no reason in principle why one's *subjective sense* of the imaginal and the transpersonal could not be similarly explored. Indeed, items could be constructed to quantify the intensity of one's subjective sense that a shamanic journeying image is derived from an imaginal or transpersonal source (e.g., "The image seemed to be created by my mind" and "The image seemed to be linked to an entity beyond my personhood," respectively).

While the aforementioned methodology clearly does not resolve the various problems that constitute the

foci of this paper, it does ostensibly allow researchers to: (1) identify shamanic journeying images, and (2) assess a percipient's subjective sense of whether a shamanic journeying image is imaginal or transpersonal. Consequently, it is arguable that this methodology constitutes an initial step towards the formulation of an ontology and epistemology of shamanic journeying imagery.

Conclusion

It was suggested that the utility of empirical findings concerning the origins of shamanic journeying imagery are inherently limited by the problem of induction. Subsequently, we developed a deductive argument regarding the ontology of shamanic journeying imagery and demonstrated that while the argument was logically valid (i.e., the conclusion followed logically from its premises), there was no guarantee that the argument was logically sound. We further argued that an application of Wittgenstein's (1958) private language argument to shamanic journeying imagery undermines: (1) the ability of a nonprivileged observer to correctly apprehend the meanings of the term shamanic journeying imagery applied to phenomenal properties by a privileged observer; and (2) the reliability of a privileged observer's application of the term shamanic journeying imagery to the phenomenal properties known by his or her conscious awareness. Finally, we suggested that attempts to quantify the phenomenology of consciousness (e.g., journeying imagery) constitute an ontological mistake referred to as reification by conflating mentalism with materialism.

The inherent inadequacies of methodologies underpinned by inductive and deductive reasoning coupled with philosophical problems associated with reification and a private language referentially linked to mental objects facilitates what Walsh (1990) referred to as *ontological indeterminacy*. Indeed, it may not be hyperbole to suggest that the fundamental nature of shamanic journeying imagery is currently unresolvable because there is no absolute method with which to examine this phenomenon. Nevertheless, it is arguable that Rock and Krippner's (2008) necessary conditions for a visual mental image to qualify as a shamanic journeying image, coupled with items designed to assess a percipient's subjective sense of whether a shamanic journeying image is imaginal or transpersonal, constitute an initial step towards the formulation of an ontology and epistemology of shamanic journeying imagery.

Notes

1. This study was supported, in part, by the Chair for Consciousness Studies, Saybrook Graduate School.
2. Shamanic journeying imagery is not restricted to any particular sensory modality; that is, journeying imagery may be visual, auditory, gustatory, olfactory, tactile or multi-modal (Walsh, 1995). However, for the purpose of the present paper, shamanic journeying images will be delimited to their visual modality because these are arguably the most abundant (Houran, Lange, & Crist-Houran, 1997; Noll, 1983).
3. One might argue that philosophical problems, by definition, resist empirical testing. It is noteworthy, however, that motivation and learning were once conceptualized as philosophical problems and, thus, held to be incongruent with the methodology of science (Eacker, 1972).

References

- Bittman, B. B., Berk, L. S., Felten, D. L., Westengard, J., Simonton, C., & Pappas, J. (2001). Composite effects of group drumming music therapy on modulation of neuroendocrine-immune parameters in normal subjects. *Alternative Therapies in Health and Medicine*, 7, 38-47.
- Chalmers, D. J. (1996). *The conscious mind: In search of a fundamental theory*. New York: Oxford University Press.
- Eacker, J. N. (1972). On some elementary philosophical problems of psychology. *American Psychologist*, 27(6), 553-565.
- Ellwood, R. (1987). Shamanism and theosophy. In S. Nicholson (Ed.), *Shamanism: An expanded view of reality* (pp. 253-264). Wheaton, IL: The Theosophical Publishing House.
- Evans, D. (1989). Can philosophers limit what mystics can do? A critique of Steven Katz. *Religious Studies*, 25, 53-60.
- Farthing, G. (1992). *The psychology of consciousness*. Englewood Cliffs, NJ: Prentice-Hall.
- Fischer, R. (1980). State-bound knowledge: "I can't remember what I said last night, but it must have been good." In R. Woods (Ed.), *Understanding mysticism* (pp. 306-311). London: Athlone.
- Forman, R. K. C. (1996). *What does mysticism have to teach us about consciousness?* Revised version of a paper delivered at "Towards a Science of Consciousness 1996" (Tucson II), April 1996.
- Gill, J. H. (1984). Mysticism and mediation. *Faith and Philosophy*, 1, 111-121.
- Harner, M. (1990). *The way of the shaman* (3rd ed.). San Francisco: Harper & Row.
- Heil, J. (1998). *Philosophy of mind*. London: Routledge.
- Heinze, R. I. (1991). *Shamans of the 20th century*. New York: Irvington.
- Houran, J., Lange, R., & Crist-Houran, M. (1997). An assessment of contextual mediation in trance states of shamanic journeys. *Perceptual and Motor Skills*, 85, 59-65.
- James, W. (1890). *Principles of psychology*, 2 vols. New York: Dover.
- Katz, S. T. (1978). Language, epistemology, and mysticism. In S. T. Katz (Ed.), *Mysticism and philosophical analysis* (pp. 22-74). London: Sheldon Press.
- Katz, S. T. (1983). The 'conservative' character of mystical experience. In S. T. Katz (Ed.), *Mysticism and religious traditions* (pp. 3-60). New York: Oxford University Press.
- Klein, D. B. (1984). *The concept of consciousness: A survey*. Lincoln, NB: University of Nebraska Press.
- Krippner, S. (1990). Tribal shamans and their travels into dreamtime. In S. Krippner (Ed.), *Dreamtime and dreamwork* (pp. 185-193). Los Angeles: Jeremy P. Tarcher.
- Krippner, S. (2000). The epistemology and technology of shamanic states of consciousness. *Journal of Consciousness Studies*, 7, 93-118.
- Krippner, S. (2002). Conflicting perspectives on shamans and shamanism: Points and counterpoints. *American Psychologist*, 57(11), 962-977.
- Malcolm, N. (1981). Wittgenstein's philosophical investigations. In V. C. Chappell (Ed.), *The philosophy of mind* (pp. 74-100). New York: Dover.
- Mercante, M. (2008). Consciousness and spontaneous mental imagery. Unpublished paper.
- Noll, R. (1983). Shamanism and schizophrenia: A state specific approach to the "schizophrenia metaphor" of shamanic states. *American Ethnologist*, 10, 443-459.
- Noll, R. (1985). Mental imagery cultivation as a cultural phenomenon: The role of visions in shamanism. *Current Anthropology*, 26, 443-461.

- Pekala, R. J. (1991). *Quantifying consciousness: An empirical approach*. New York: Plenum Press.
- Peters, L. (1989). Shamanism: Phenomenology of a spiritual discipline. *The Journal of Transpersonal Psychology, 21*, 115-137.
- Reber, A. S., & Reber, E. (2001). *The Penguin dictionary of psychology* (3rd ed.). London: Penguin.
- Reichenbach, H. (1951). *The rise of scientific philosophy*. Berkeley, CA: University of California Press.
- Ripinsky-Naxon, M. (1993). *The nature of shamanism*. Albany, NY: State University of New York Press.
- Rock, A. J. (2006). Phenomenological analysis of experimentally induced visual mental imagery associated with shamanic journeying to the lower world. *International Journal of Transpersonal Studies, 25*, 45-55.
- Rock, A. J., & Baynes, P. B. (2005). Shamanic journeying imagery, constructivism and the affect bridge technique. *Anthropology of Consciousness, 16*(2), 50-71.
- Rock, A. J., & Baynes, P. B. (2007). What are the origins of shamanic journeying imagery? The modification of a hypnoanalytic technique to address an enduring methodological problem. *Humanistic Psychologist, 35*(4), 349-361.
- Rock, A. J., Casey, P. J., & Baynes, P. B. (2006). Experimental study of ostensibly shamanic journeying imagery in naïve participants II: Phenomenological mapping and modified affect bridge. *Anthropology of Consciousness, 17*(1), 65-83.
- Rock, A. J., & Krippner, S. (2007a). Does the concept of "altered states of consciousness" rest on a mistake? *International Journal of Transpersonal Studies, 26*, 33-40.
- Rock, A. J., & Krippner, S. (2007b). Shamanism and the confusion of consciousness with phenomenological content. *North American Journal of Psychology, 9*, 485-500.
- Rock, A. J., & Krippner, S. (2008). Proposed criteria for the necessary conditions for shamanic journeying imagery. *Journal of Scientific Exploration, 22*(2), 215-226.
- Rosenberg, D. (2000). *The philosophy of science: A contemporary introduction*. London: Routledge.
- Stoerber, M. (1991). Constructivist epistemologies of mysticism: A critique and a revision. *Religious Studies, 28*, 107-116.
- Strassman, R. J. (2001). *DMT: The spirit molecule*. Rochester, VT: Park Street Press.
- Tart, C. T. (1975). *States of consciousness*. New York: Dutton.
- Walsh, R. (1990). Shamanic cosmology: A psychological examination of the shaman's worldview. *ReVision, 13*(2), 86-100.
- Walsh, R. (1995). Phenomenological mapping: A method for describing and comparing states of consciousness. *The Journal of Transpersonal Psychology, 27*, 25-56.
- Walsh, R. (2007). *The world of shamanism: New views of an ancient tradition*. Woodbury, MA: Llewellyn.
- Watkins, J. G. (1971). The affect bridge: A hypnoanalytic technique. *The International Journal of Clinical and Experimental Hypnosis, 19*(1), 21-27.
- Whitehead, A. N. (1946). *Science and the modern world* (2nd ed.). London: Cambridge University Press.
- Wittgenstein, L. (1958). *Philosophical investigations* (3rd ed.). Oxford, UK: Basil Blackwell.

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