# International Journal of Transpersonal Studies

Volume 26 | Issue 1

Article 5

1-1-2007

# Does the Concept of "Altered States of Consciousness" Rest on a Mistake?

Adam J. Rock Deakin University

Stanley Krippner Saybrook Graduate School

Follow this and additional works at: https://digitalcommons.ciis.edu/ijts-transpersonalstudies

🗘 Part of the Philosophy Commons, Psychology Commons, and the Religion Commons

## **Recommended Citation**

Rock, A. J., & Krippner, S. (2007). Rock, A. J., & Krippner, S. (2007). Does the concept of "altered states of consciousness" rest on a mistake? International Journal of Transpersonal Studies, 26(1), 33–40.. *International Journal of Transpersonal Studies, 26* (1). http://dx.doi.org/10.24972/ijts.2007.26.1.33



This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License. This Article is brought to you for free and open access by International Journal of Transpersonal Studies. It has been accepted for inclusion in International Journal of Transpersonal Studies by an authorized administrator. For more information, please contact the editors.

# Does the Concept of "Altered States of Consciousness" Rest on a Mistake?

# Adam J. Rock

Deakin University Melbourne, VIC, Australia

*Stanley Krippner*<sup>1</sup> Saybrook Graduate School San Francisco, CA, USA

Block (2002) has argued that the multiplicity of meanings ascribed to consciousness is due to the erroneous treatment of very different concepts as a single concept. Block distinguished four notions of consciousness intended to encapsulate the various meanings attributed to the term: phenomenal, access, self, and monitoring consciousness. We argue that what is common to all of these definitions is the implicit distinction between consciousness and the content of consciousness. We critically examine the term "altered state of consciousness" and argue that affixing the qualifier "altered state" to consciousness results in a theoretical confusion of consciousness and its content, that is, consciousness is mistaken for the content of consciousness. We refer to this as the consciousness/content fallacy and argue that it may be avoided if one supplants "altered states of consciousness" with "altered pattern of phenomenal properties," an extrapolation of the term "phenomenal field." Implications of the consciousness/content fallacy for theory and research are also considered.

halmers (1995) suggested that, "There is nothing we know more intimately than consciousness, but there is nothing harder to explain" (p. 200). Although psychologists and philosophers of mind are engaged in intricate debate over the concept of "consciousness" (e.g., Antony, 2002; Block, 1995; Chalmers, 1996, 2002; Lormand, 1996; Natsoulas, 1978, 1983; Rosenthal, 2002; Silby, 1998), there exists a lacuna in the literature with regards to a critical analysis of the distinction between consciousness and the content of consciousness inherent in definitions of the term consciousness and the intimately-related so-called "state" of consciousness. Similarly, scholars have neglected to delineate the kind of fallacious reasoning whereby a shift from the key definitional elements of the term consciousness to states of consciousness is accompanied by a theoretical confusion of consciousness and the content of consciousness. We refer to this as the consciousness/ content fallacy.

The purpose of this paper is to elucidate the aforementioned fallacy and provide an attempt at resolution. We proceed by reviewing numerous definitions of consciousness and argue that they all exemplify a commonality with regards to the implicit distinction between consciousness and the content of consciousness. Secondly, the consciousness/content fallacy is explicated through an analysis of the concept of states of consciousness. Finally, the consciousness/content fallacy is examined with reference to the concept of "altered states of consciousness" and, subsequently, a solution to the fallacy is proposed.

It is noteworthy that there exist instances in which the key definitional elements of the term consciousness are held to be conscious awareness and unconscious functioning (Krippner, 1972) or simply conscious awareness, attention, and memory (Farthing, 1992). The present paper, however, is concerned with the concept of consciousness as the "cognizor" of objects (e.g., internal and external events) and the fallacy that occurs when a shift from the term consciousness to states of consciousness is accompanied by a confusion of consciousness with the content of consciousness. Consequently, for the purpose of the present paper, only the conscious awareness component of the concept of consciousness will be considered.

## **Consciousness and Content**

Forman (1996) stated that the inherent difficulty associated with providing an adequate definition of consciousness is due in part to the multiplicity of meanings ascribed to the term. Block (2002) suggested that this multiplicity of meanings is due to the erroneous treatment of very different concepts as a single concept. For example, in an influential series of articles Block (e.g., 1995, 2002) distinguished a number of notions of consciousness: phenomenal, access, self, and monitoring consciousness.

Block (2002, p. 206) stated that phenomenal consciousness (p-consciousness) refers to one being aware of "experiential properties of sensations, feelings and perceptions...thoughts, wants and emotions." In contrast, access-consciousness (a-consciousness) is a non-phenomenal notion of consciousness. An entity exemplifying aconsciousness is one who is aware of information "poised for direct rational control of action" (Silby, 1998, p. 3). Block (2002) suggested that self-consciousness (s-consciousness) is illustrated by "me-ishness." An s-conscious entity is one that is aware of the concept of the self and that one's usage of this concept (explicitly or implicitly) in thinking about oneself also reveals s-consciousness. Consciousness may also be conceptualized as an internal monitor, that is, monitoring consciousness (m-consciousness). Block suggested that an entity may be m-conscious of inner perceptions, internal scanning, and metacognitive thoughts resulting in entering a particular cognitive state.

A commonality exemplified by the preceding notions of consciousness is that, "When people are conscious, they are always conscious of something. Consciousness always has an object" (Benjafield, 1992, p. 58).<sup>2</sup> For example, one may be p-conscious of phenomenal properties, a-conscious of information that may be invoked to control actions, s-conscious of one's self-concept, or m-conscious of, for example, internal scanning. Benjafield's contention is by no means novel. Indeed, over a century ago Husserl argued that, "All consciousness...is consciousness of something" (cited in Sartre, 1958, p. Ii). Similarly, Sartre himself asserted that consciousness always attends to a "transcendent object" and is thereby precluded from being phenomenologically contentless (p. 629). Sartre referred to this type of consciousness as "positional self-consciousness." Sartre stated that:

All that there is of *intention* in my actual consciousness is directed toward the outside, toward the table;

A survey of the cognitive psychology literature further supports Benjafield's (1992) contention. In brief, cognitive psychologists (e.g., Matlin, 1998; Nairne, 1997; Solso, 2001) tend to define consciousness as the awareness of internal and external events (e.g., mental phenomena and stimuli in the environment, respectively). In contrast, others limit the definitional boundary of consciousness to "the subjective awareness of mental events" (e.g., Westen, 1999, p. G-4). It is arguable that these assertions constitute the core of consciousness concepts in cognitive psychology today. Commenting on the definition of consciousness as being aware of something, Natsoulas (1978) wrote: "It is arguably our most basic concept of consciousness, for it is implicated in all the other senses" (p. 910).

The salient point exemplified by the preceding descriptions of consciousness is the distinction between consciousness and the content of consciousness. For example, Block's (2002) phenomenal consciousness is not composed of experiential properties such as sensations and perceptions (contents of p-consciousness), but rather refers to one *being p-conscious* of experiential properties such as sensations and perceptions.

# **Confusing Consciousness and Content**

As stated above, consciousness is often defined as awareness of internal and external events (e.g., Matlin, 1998; Nairne, 1997; Solso, 2001) or merely awareness of something (e.g., Natsoulas, 1978). In contrast, a so-called state of consciousness (SoC) tends to be defined as "[the set] of mental episodes of which one can readily become directly aware" (p. 912). While definitions of consciousness typically distinguish consciousness from the content of consciousness, the preceding definition of SoCs represents a theoretical confusion of consciousness and its contents by explicitly stating that a SoC is the content (i.e., mental episodes) available to conscious awareness. That is, when the qualifier "state" is affixed to consciousness, "it" [consciousness] is held to be content. Consequently, the term states of consciousness rests on a conflation of consciousness and content whereby consciousness is erroneously categorized in terms of content rendered

perceptible, presumably, by itself. Again, we refer to this as the consciousness/content fallacy.

Implicit in the consciousness/content fallacy is the fallacious notion that during a SoC, consciousness may observe its own qualities. For example, a privileged observer would only be conscious of the fact that he or she was experiencing a particular SoC (i.e., that consciousness exemplified state-like properties), if consciousness could observe its own properties. However, one cannot directly experience the conscious awareness process, CA1, which functions to render an object perceptible because this would require the postulation of a second conscious awareness process, CA2, necessary to render CA1 a perceptible object, thus, committing one to a vicious regress.

Furthermore, others (e.g., Feinberg, 2001; Kant, 1781/1933; Vasu, 1979) have argued that consciousness cannot directly experience "itself" as a perceptible object, for then it would cease to be the subject.<sup>3</sup> Wilber (1993) stated that the circumstance is analogous to a sword that cannot cut itself, an eye that cannot see itself, a tongue that cannot taste itself, or a finger that cannot touch its own tip. This argument has been reiterated in Baladeva's commentary to the Vedanta sutras of Badarayana in which he wrote, "If the Self could perceive His own properties, He could also perceive Himself; which is absurd, since one and the same thing cannot be both the agent and the object of an action" (Vasu, 1979, p. 331). Similarly, in the Brihadaranyaka-Upanishad it is stated that, "You cannot see the seer of sight, you cannot hear the hearer of sound, you cannot think the thinker of the thought, you cannot know the knower of the known" (Swami & Yeats, 1970, p. 138). As Kant (1781/1933) argued:

I cannot know as an object that which I must presuppose in order to know any object, and that the determining self (the thought) is distinguished from the self that is to be determined (the thinking subject) in the same way that knowledge is distinguished from its object. (p. 365)

A variant of the consciousness/content fallacy may be found in Pekala's (1991) statement that, "By consciousness I mean one's awareness of one's subjective experience, including both the processes of being aware and the various contents of the awareness" (p. 1). That is, Pekala contended that consciousness is both "one's awareness of one's subjective experience" *and* "the various contents of the awareness" (p. 1). Consequently, rather than committing the consciousness/content fallacy via a movement from a definition of consciousness to a definition of SoCs, Pekala has implicitly conflated consciousness and content within the context of a single definition.

# The Consciousness/Content Fallacy with Reference to Altered States of Consciousness

During the formative stages of humanistic and transpersonal psychology, Ludwig (1969), Krippner (1972), and Tart (1969) made contributions regarding the formulation of operational definitions pertaining to the concept of altered states of consciousness (ASCs). Decades later such definitions are still held by many to constitute the standard.

Ludwig (1969) defined an ASC as

any mental state(s), induced by various physiological, psychological, or pharmacological manoeuvres or agents, which can be recognized subjectively by the individual himself (or by an objective observer of the individual) as representing a sufficient deviation in subjective experience or psychological functioning from certain general norms for that individual during alert, waking consciousness. (pp. 9-10)

Unfortunately, Ludwig's definition fails to clarify precisely what constitutes a "sufficient deviation in subjective experience" (pp. 9-10). Furthermore, the "general norms" held to be associated with normal waking consciousness are neither outlined nor explained.

In contrast to Ludwig (1969), Krippner (1972) has formulated a definition of ASCs that circumvents the problems associated with operationalizing the qualifying term "sufficient." Krippner (1972) defined an ASC as

a mental state which can be subjectively recognized by an individual (or by an objective observer of the individual) as representing a difference in psychological functioning from the individual's 'normal' alert state. (p. 1)

Correspondingly, Tart (1969) defined an ASC for a given individual as one in which the person experiences a

qualitative shift in his pattern of mental functioning, that is, he feels not just a quantitative shift (more or less alert, more or less visual imagery, sharper or duller, etc.), but also that some quality or qualities of his mental processes are different. (p. 1)

# Does the Concept of ASCs Rest on a Mistake?

Examples of qualities may include visual hallucinations, alterations in space-time perception, reductions in discursive thought, and the dissolution of one's sense of self, and it can be argued that Tart's (1969) decision to include both quantitative and qualitative differences in cognitive functioning within the definitional boundaries of ASCs renders his formulation of the concept superior to Krippner's (1972) attempt at operationalization.

It is noteworthy that the preceding definitions postulate that it is the shifts, deviations, or differences in subjective experience (Ludwig, 1969), psychological functioning (Krippner, 1972), or mental functioning (Tart, 1969) that constitute an ASC. If one accepts the definition of an ASC as shifts, deviations, or differences in subjective experience, psychological functioning, or mental functioning, then it would seem to follow that ordinary consciousness is the baseline subjective experience, psychological functioning, or mental functioning. Furthermore, if an ASC did constitute the shifts, deviations, or differences in subjective experience, psychological functioning, or mental functioning, then a privileged observer would not be conscious of such shifts on the grounds that to be conscious of such shifts would necessitate that consciousness could observe changes in its own properties, that is, alterations held to constitute an ASC. Ludwig (1969), Krippner (1972), and Tart (1969) nonetheless emphasize that an ASC may be subjectively recognized by a privileged observer. Consequently, if these authors are using ASC as a subsidiary part of the notion of consciousness as one being conscious of something (e.g., an internal or external event), then they have confused consciousness and the content of consciousness on the grounds that consciousness is implicitly held to be both: (1) the cognizor of shifts in subjective experience, and (2) the shifts in subjective experience. If ASC is not being used as a subsidiary part of the aforementioned notion of consciousness, then the definition of consciousness that has been used to extrapolate a definition for ASC needs to be explicitly stated.

If one accepts the definition of consciousness as being conscious of something, then it would seem to follow that during an ASC it is the phenomenal properties that consciousness may be aware of that are altered (e.g., visual mental imagery, body image, time sense), rather than the *state* of consciousness. It is arguable, however, that phenomenal properties do not encapsulate the variety of mental phenomena that may be objectified by consciousness. For example, as previously discussed,

Block (2002) formulated the notion of access-consciousness whereby an entity is held to be conscious of nonphenomenal mental objects: information primed for the rational control of one's actions (Silby, 1998). Similarly, O'Brien and Opie (1997) suggested that "phenomenal experience" does not refer to objects associated with selfconsciousness and access-consciousness (e.g., self-concept and information that may be invoked to control actions, respectively), but rather the "what is it like?" of experience (p. 269). For the purpose of this paper, however, Reber and Reber's (2001) definition of phenomenal field as "absolutely anything that is in the total momentary experiencing of a person, including the experience of the self" (p. 532) is adopted and applied to "phenomenal properties." It is arguable that if one defines phenomenal properties in this way, then an altered pattern of phenomenal properties encapsulates what has been referred to by Block (1995) and others (e.g., Lormand, 1996) as phenomenal and non-phenomenal objects of conscious awareness, that is, the content that a privileged observer may be aware of during what Krippner (1972), Ludwig (1969), and Tart (1969) referred to as an ASC.<sup>4</sup> One may then recommend that the term altered state of consciousness be supplanted by a new term, "altered pattern of phenomenal properties."5, 6 It would seem that by reconceptualizing the notion of an ASC in this manner, the confusion of consciousness with the content of consciousness is avoided.7

The wide applicability of our proposed solution to the consciousness/content fallacy may be exemplified with respect to shamanic research. While the key definitional elements of the term "shamanic states of consciousness" are somewhat contentious, it is generally held that an integral feature of such states is the presence of highly organized, multi-modal (e.g., visual, auditory, gustatory, tactile) mental imagery that is consistent with a shamanic cosmology (e.g., Houran, Lange & Crist-Houran, 1997; Noll, 1983, 1985; Walsh, 1995). For instance, as an experimental participant's shamanic journey to the "lower world" progresses, extraneous visual mental images (i.e., distracting thoughts) may be supplanted by visual mental images of, for example, anthropomorphous spirit helpers, rivers, and predatory creatures. It is the qualitative alteration of visual mental images, rather than consciousness "itself," that contributes to a privileged observer's (i.e., an experimental participant) subjective recognition that a particular state is shamanic. Consequently, it would seem more appropriate to speak of shamanic patterns of phenomenal properties rather than a shamanic state of consciousness.

#### Conclusion

This paper reviews numerous definitions of the term consciousness and argues that they all share the implicit distinction between consciousness and the content of consciousness. It is further suggested that definitions of the terms states of consciousness and altered states of consciousness erroneously conflate consciousness and content by explicitly defining SoCs as the content (i.e., mental episodes) available to conscious awareness. That is, when the qualifier "state" is affixed to consciousness, "it" [consciousness] is held to be content. This is referred to as the consciousness/content fallacy. It is also contended that the consciousness/content fallacy is avoided if one reconceptualizes an ASC as an altered pattern of phenomenal properties. Finally, the wide applicability of our proposed solution to the consciousness/ content fallacy is illustrated with respect to shamanic research.

The consciousness/content fallacy has numerous theoretical implications. Theories of ASCs, for example, would be enhanced by supplanting the term altered states of consciousness with altered patterns of phenomenal properties. Theories containing the consciousness/content fallacy would need to be revised to avoid fallacious contentions such as consciousness is simultaneously: (1) the cognizor of shifts in, for instance, subjective experience, and (2) the shifts in subjective experience themselves. If a particular ASC theory did not incorporate the term altered states of consciousness as a subsidiary of the concept of consciousness as conscious awareness of something, then this would need to be explicitly stated. Fundamentally, ASC theories would need to be reformulated such that the phenomenon being explained is alterations in phenomenal properties rather than consciousness.

In addition, the consciousness/content fallacy has implications for quantitative and qualitative research. A researcher who is cognizant of this fallacy and wishes to develop a survey instrument to quantitatively measure, for example, meditation experiences, would construct items pertaining to alterations in phenomenal properties, rather than alterations in consciousness.<sup>8</sup> For instance, items such as "I experienced an extremely unusual state of consciousness" would be omitted in favor of items addressing a range of phenomenal properties (e.g., "My subjective time sense seemed to slow down," "My visual imagery became extremely vivid," "I felt great joy"). Similarly, consider a research situation in which, for example, an existential-phenomenological study of shamanic journeying experiences is conducted using semi-structured interviews for the purpose of obtaining non-numerical data that may be organized into comprehensive constituent themes. A researcher who is mindful of the consciousness/content fallacy would not pose open-ended questions about shamanic states of consciousness or alterations in consciousness. Instead open-ended questions pertaining to phenomenal properties would be asked (e.g., "Can you please tell me about the visual mental images that you encountered during your last journeying experience?"). We hope that this elucidation and proposed resolution of the consciousness/content fallacy will encourage consciousness theoreticians and researchers from diverse backgrounds to address its implications.

#### Endnotes

- 1. The authors wish to thank the Chair for the Study of Consciousness, Saybrook Graduate School and Research Center, for its support of this paper.
- 2. One notable exception is an unmediated form of mystical experience referred to as the pure consciousness event (PCE) (e.g., Almond, 1982; Bucknell, 1989a; Franklin, 1990; Kessler & Prigge, 1982; Matt, 1990; Perovich, 1990; Prigge & Kessler, 1990; Rothberg, 1990; Woodhouse, 1990). Forman (1990a) defined the PCE as "a wakeful though contentless (nonintentional) consciousness" (p. 8). A substantial body of evidence has been produced to support this claim. For example, Chapple (1990) reported that descriptions of kaivalyam in the Samkhya system and samadhi in the Yoga Sutras are suggestive of the "attainment of a purified consciousness that is beyond characterization" (p. 70). Griffiths (1990) surveyed the Indian Buddhist tradition and found evidence for a condition referred to as the attainment of cessation (nirodhasamapatti), which is defined as "the non-occurrence of mind and mental concomitants" (p. 78). Bucknell (1989b) suggested that the "third non-material jhana" encountered in Buddhist meditation is analogous to the introvertive mystical experience "in which both the thought-stream and sensory input have ceased, leaving zero mental content" (p. 19). Forman (1990b) examined the mystical theology of the Christian

mystic Meister Eckhart and concluded that Eckhart considered encounters with the Godhead to be "phenomenologically contentless" (p. 112).

- 3. For the purpose of the present paper, consciousness is not considered a subject in the literal sense of a thing that attends to objects, but rather a process of subjectivity that renders objects perceptible.
- 4. It is not uncommon for scholars to use the term "phenomenal" or "phenomenological" to denote objects that, for example, Block (1995) would categorize as non-phenomenal. For example, Pekala's (1991) use of the term "phenomenological experience" includes phenomena that Block would consider associated with self-consciousness (e.g., one's self as an object of consciousness).
- 5. It is arguable that because we are delimiting our consideration of the concept of consciousness to the conscious awareness component of consciousness, the term altered pattern of phenomenal properties should be qualified and replaced with *conscious awareness* of an altered pattern of phenomenal properties. However, the qualifier conscious awareness is superfluous because it is implicit in the key definitional elements of the term "phenomenal" as derived from the term "phenomenal field" (i.e., "absolutely anything that is in the total momentary experiencing of a person, including the experience of the self" (Reber & Reber, 2001, p. 532). Specifically, it may be argued that this "total momentary experiencing of a person" (p. 532) implies conscious awareness.
- 6. A pattern of phenomenal properties is held to be altered relative to a baseline pattern of phenomenal properties, that is, what is traditionally referred to as normal waking consciousness or an ordinary waking state. One may use, for example, a retrospective phenomenological assessment instrument referred to as the Phenomenology of Consciousness Inventory (PCI; Pekala, 1991) to investigate patterns of phenomenal properties. In fact, the PCI is held to quantify "both the major contents of consciousness, and the processes or means by which these contents are 'illuminated,' cognized, perceived, and so forth by consciousness" (Pekala, 1991, p. 82). The former is denoted by our use of the term phenomenal properties. The PCI consists of 12 major dimensions (e.g., positive effect, visual imagery, rationality) and 14 minor dimensions (e.g., fear, joy, altered body image). Each dimension is scored on a seven-

point Likert scale where 0 denotes no or little increased intensity values and 6 denotes much or complete (Pekala & Wenger, 1983; Pekala, Wenger, & Levine, 1985). The PCI possesses adequate psychometric properties. For example, Pekala, Steinberg, and Kumar (1986) reported coefficient alphas between .70 and .90 for all dimensions, suggesting that the PCI has a good internal consistency. In support of the scale's criterion validity, Pekala, Steinberg, and Kumar found that subjects exposed to different stimulus conditions received significantly different PCI scores. One may use the PCI data to construct graphs referred to as psygrams that diagram the patterns of relationships between pairs of phenomenal properties derived from a squared covariance matrix pertaining to a particular stimulus condition (Pekala, 1991). Previous research has used the PCI to investigate whether, for example, the phenomenology of trance postures is statistically significantly altered relative to a baseline stimulus condition of sitting quietly with eyes open (Woodside, Kumar & Pekala, 1997). Pekala, Wenger, and Levine (1985) also used sitting quietly with eyes open as their control condition, arguing that it elicits phenomenal properties congruent with normal waking consciousness.

- 7. Clearly, such logic may be extended to other states of consciousness. For example, the term shamanic states of consciousness may be replaced by a shamanic pattern of phenomenal properties, Buddhist states (e.g., jhanas) of consciousness by a Buddhist pattern of phenomenal properties, yogic states (e.g., samadhi) of consciousness by a yogic pattern of phenomenal properties, and so on.
- 8. Similarly, Krippner and Meacham (1968) have suggested that "it may make more sense to speak of the 'objects' of consciousness than to speak of the 'states' of consciousness" (p. 150). It is noteworthy, however, that this recommendation was not arrived at via a recognition of the consciousness/content fallacy, but rather the methodological difficulties associated with searching for a particular state or altered state of consciousness. For example, Krippner and Meacham (1968) asserted that:

The concept of "altered states of consciousness" would be valid if each state brought about similar subjective reports and similar neurophysiological reactions on the part of most individuals. With the exception of sleep and dream states, and with the possible exception of the "alpha state," these subjective and objective similarities have not been consistently noted. (pp. 149-150)

#### References

- Almond, P. (1982). *Mystical experience and religious doctrine*. New York: Mouton Publishers.
- Antony, M. V. (2002). Concepts of consciousness, kinds of consciousness, meanings of 'consciousness.' *Philosophical Studies*, 109, 1-16.
- Benjafield, J. G. (1992). *Cognition*. Englewood Cliffs, NJ: Prentice-Hall International.
- Block, N. (1995). On a confusion about a function of consciousness. *Behavioral and Brain Sciences*, *18*, 227-47.
- Block, N. (2002). Concepts of consciousness. In D. Chalmers (Ed.), *Philosophy of mind: Classical and contemporary readings* (pp. 206-218). New York: Oxford University Press.
- Bucknell, R. (1989a). Buddhist jhana as mystical experience. In G. K. Zollschan, J. F. Schumaker, & G. F. Walsh (Eds.), *Exploring the paranormal: Perspectives on belief and experience* (pp. 131-149). Bridgeport, CT: Prism Press.
- Bucknell, R. (1989b). Buddhist meditation and mystical experience. Paper presented to the 14th Annual Conference of the Australian Association for the Study of Religions, Perth.
- Chalmers, D. (1995). Facing up to the problem of consciousness. *Journal of Consciousness Studies*, 2, 200-219.
- Chalmers, D. (1996). *The conscious mind: In search of a fundamental theory*. Oxford: Oxford University Press.
- Chalmers, D. (2002). Consciousness and its place in nature. In D. Chalmers (Ed.), *Philosophy of mind: Classical and contemporary readings* (pp. 247-272). New York: Oxford University Press.
- Chapple, C. (1990). The unseen seer and the field: Consciousness in Samkhya and Yoga. In R. K. C. Forman (Ed.), *The problem of pure consciousness* (pp. 53-70). New York: Oxford University Press.
- Farthing, G.W. (1992). *The psychology of consciousness*. Englewood Cliffs, NJ: Prentice-Hall.
- Feinberg, T. E. (2001). *Altered egos: How the brain creates the self*. New York: Oxford University Press.
- Forman, R. K. C. (1990a). Introduction: Mysticism, constructivism, and forgetting. In R. K. C. Forman (Ed.), *The problem of pure consciousness* (pp. 3-49). New York: Oxford University Press.
- Forman, R. K. C. (1990b). Eckhart, gezucken, and the ground of the soul. In R. K. C. Forman (Ed.), *The problem of pure consciousness* (pp. 98-120). New York: Oxford University Press.
- Forman, R. K. C. (1996). What does mysticism have to teach us about consciousness? Revised version of a paper delivered to "Towards a Science of Consciousness 1996" (Tucson II), April 1996.

- Franklin, R. L. (1990). Experience and interpretation in mysticism. In R. K. C. Forman (Ed.), *The problem of pure consciousness* (pp. 288-304). New York: Oxford University Press.
- Griffiths, P. J. (1990). Pure consciousness and Indian Buddhism. In R. K. C. Forman (Ed.), *The problem of pure consciousness* (pp. 71-97). New York: Oxford University Press.
- 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.
- Kant, I. (1933). The critique of pure reason (W. K. Smith, Trans.). London: Macmillan Press. (Original work published 1781)
- Kessler, G., & Prigge, N. (1982). Is mystical experience everywhere the same? *Sophia*, 21, 39-55.
- Krippner, S. (1972). Altered states of consciousness. In J.White (Ed.), *The highest state of consciousness* (pp. 1-5).Garden City, NJ: Doubleday.
- Krippner, S., & Meacham, W. (1968). Consciousness and the creative process. *The Gifted Child Quarterly*, 12, 141-157.
- Lormand, E. (1996). Nonphenomenal consciousness. *Nous*, 30, 242-261.
- Ludwig, A. M. (1969). Altered states of consciousness. In C. T. Tart (Ed.), *Altered states of consciousness* (pp. 9-21). New York: Wiley.
- Matlin, M. W. (1998). *Cognition* (4th ed.). Fortworth, TX: Harcourt Brace College Publishers.
- Matt, D. C. (1990). Ayin: The concept of nothingness in Jewish mysticism. In R. K. C. Forman (Ed.), *The problem* of pure consciousness (pp. 121-59). Oxford: Oxford University Press.
- Nairne, J. S. (1997). *Psychology: The adaptive mind*. Pacific Grove, CA: Brooks/Cole.
- Natsoulas, T. (1978). Consciousness. American Psychologist, 33, 906-914.
- Natsoulas, T. (1983). Addendum to consciousness. *American Psychologist*, 38, 121-122.
- Noll, R. (1983). Shamanism and schizophrenia: A state specific approach to the "schizophrenia metaphor" of shamanic states. *American Ethnologist*, *10*, 443-59.
- Noll, R. (1985). Mental imagery cultivation as a cultural phenomenon: The role of visions in shamanism. *Current Anthropology*, 26, 443-461.
- O'Brien, G., & Opie, J. (1997). Cognitive science and phenomenal consciousness: A dilemma, and how to avoid it. *Philosophical Psychology*, *10*, 269-86.

## Does the Concept of ASCs Rest on a Mistake?

- Pekala, R. J. (1991). Quantifying consciousness: An empirical approach. New York: Plenum Press.
- Pekala, R. J., Steinberg, J., & Kumar, C. K. (1986). Measurement of phenomenological experience: Phenomenology of Consciousness Inventory. *Perceptual and Motor Skills*, 63, 983-989.
- Pekala, R. J., & Wenger, C. F. (1983). Retrospective phenomenological assessment: Mapping consciousness in reference to specific stimulus conditions. *Journal of Mind and Behavior*, 4, 247-274.
- Pekala, R. J., Wenger, C. F., & Levine, R. L. (1985). Individual differences in phenomenological experience: States of consciousness as a function of absorption. *Journal of Personality and Social Psychology*, 48, 125-132.
- Perovich, A. N. (1990). Does the philosophy of mysticism rest on a mistake? In R. K. C. Forman (Ed.), *The* problem of pure consciousness (pp. 237-53). New York: Oxford University Press.
- Prigge, N., & Kessler, G. E. (1990). Is mystical experience everywhere the same? In R. K. C. Forman (Ed.), *The* problem of pure consciousness (pp. 269-87). New York: Oxford University Press.
- Reber, A. S., & Reber, E. (2001). *The Penguin dictionary of psychology* (3rd ed.). London: Penguin.
- Rosenthal, D. M. (2002). How many kinds of consciousness? *Consciousness and Cognition*, 11, 653-665.
- Rothberg, D. (1990). Contemporary epistemology and the study of mysticism. In R. K. C. Forman (Ed.), *The problem of pure consciousness* (pp. 163-210). New York: Oxford University Press.
- Sartre, J. P. (1958). *Being and nothingness: An essay on phenomenological ontology*. New York: Philosophical Library.
- Silby, B. (1998). On a distinction between access and phenomenal consciousness. Retrieved February 2, 2005, from http://www.def-logic.com/articles/silby011.html
- Solso, R. L. (2001). *Cognitive psychology* (5th ed.). Boston: Allyn and Bacon.
- Swami, S. P., & Yeats, W. B. (1970). *The ten principal Upani-shads*. London: Faber and Faber.
- Tart, C. T. (1969). Introduction. In C. T. Tart (Ed.), *Altered* states of consciousness (pp. 1-7). New York: Wiley.
- Vasu, R. B. S. C. (1979). *The Vedanta sutras of Badarayana with the commentary of Baladeva* (2nd ed.). New Delhi: Oriental Books Reprint Corporation.
- Walsh, R. (1995). Phenomenological mapping: A method for describing and comparing states of consciousness. *Journal of Transpersonal Psychology*, 27 (1), 25-56.

- Westen, D. (1999). *Psychology: Mind, brain, & culture* (2nd ed.). New York: Wiley.
- Wilber, K. (1993). *The spectrum of consciousness* (2nd ed.). Wheaton, IL: Quest.
- Woodhouse, M. B. (1990). On the possibility of pure consciousness. In R. K. C. Forman (Ed.), *The problem of pure consciousness* (pp. 254-68). New York: Oxford University Press.
- Woodside, L. N., Kumar, V. K., & Pekala, R. J. (1997). Monotonous percussion drumming and trance postures: A controlled evaluation of phenomenological effects. *Anthropology of Consciousness*, 8, 69-87.

#### About the Authors

*Adam J. Rock, PhD*, is a lecturer in psychology at Deakin University, Melbourne, Australia, and an Adjunct Research Fellow at the Windbridge Institute for Applied Research in Human Potential, Tucson, Arizona. His research interests include the phenomenology of what have typically been referred to as altered states of consciousness; conceptual problems associated with consciousness; shamanism and shamanic journeying experiences with special emphasis on the ontology and epistemology of shamanic journeying imagery; philosophical problems of psychology; and purported discarnate communication experiences. He has published in all of these areas.

Stanley Krippner, PhD, is Alan Watts Professor of Psychology, Saybrook Graduate School and Research Center, San Francisco, California. In 2002, the American Psychological Association presented him its Award for Distinguished Contributions to the Advancement of International Psychology. His award speech, "Conflicting perspectives on shamans and shamanism: Points and counterpoints," was the first article on shamanism to be published in the American Psychologist. In 2007, he gave an invited address, "Learning from the Spirits," at the American Anthropological Association, reviewing his fieldwork in Brazil's spiritistic religions. He is a former president of the International Association for the Study of Dreams and a Fellow in several professional organizations including the Society for the Scientific Study of Sexuality and the Society for the Scientific Study of Religion.