## **BOOK REVIEW**

Altering Consciousness: Multidisciplinary Perspectives Volumes 1 & 2 edited by Etzel Cardeña and Michael Winkelman. Santa Barbara, CA: Praeger, an imprint of ABC-CLIO, 2011. Volume 1, 401 pp. Volume 2, 399 pp. \$124.95. ISBN 978-0313383083.

This two-volume set is an extraordinary accomplishment of scholarship. Cardeña and Winkelman have assembled a wide-ranging collection of chapters written from an array of multidisciplinary perspectives that nonetheless flows easily from start to finish. The depth and breadth of these two volumes is amazing. In addition to thoroughly covering classic topics such as hypnosis, meditation, shamanism, psychedelics, and sleep and dreams, there are chapters on the visual and performance arts, music, literature, philosophy, psychopathology, addiction, sex, human development, neurochemistry, and parapsychology.

Given the enormous range of topics and disciplinary domains, the editors are to be credited for facilitating conceptual continuity across chapters in terms of definitions and terminology. The editors also embed internal references linking chapters and subjects within and across the two volumes. The organization imposed on this diverse array of topics contributes to the smooth transitions and logical branching of ideas and observations. As a result, the volumes are well-integrated and far more readable than many edited books.

In Volume 1: History, Culture and Humanities, Cardeña and Winkelman contribute introductory chapters contextualizing altered states of consciousness and identifying the frames of reference within which they can be examined. The chapters are grouped into a series of "perspectives" from which to view altered consciousness. The first section, Historical Perspectives, details the evolution of Western thinking about altered states of consciousness capped by a reconceptualization of the last fifty years by Julie Beischel, Adam Rock, and Stanley Krippner. This section is followed by Cultural Perspectives, describing alternative understandings including Eastern, shamanistic, social, and technological approaches to altered states. The volume concludes with a rich set of chapters on the many and varied roles of altered consciousness in religion, the arts, and the humanities.

Volume 2, Biological and Psychological Perspectives, begins with a ten-chapter section on biological and pharmacological approaches to understanding altered consciousness. Sleep and dreams, dopamine, serotonin, psychedelic drugs, and sex are examined in detail. The chapter by Andrea

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Blätter, Jörg Fachner, and Michael Winkelman provides an important perspective on the role of altered states in addictive behaviors that is missing from most scientific and social approaches to substance abuse. The final section, Psychological Perspectives, focuses on altered states as they are manifest in healing and spirituality and in psychopathology. The volume concludes with a chapter by David Luke summarizing and critiquing the limited research on altered states and paranormal phenomena.

There is also another reason why the chapters fit together so well. Implicitly or explicitly the authors conceptualize altered consciousness as manifest in the form of distinct mental states—trance states, meditation states, dream states, hypnotic states, drug states, vegetative states. Indeed the notion of the "stateness" of altered consciousness serves as a common denominator across the many disciplinary perspectives, levels of analysis, and sources of data represented in these volumes. The concept of altered consciousness as a distinct (or as Charles Tart would say a "discrete") mental state serves as an isomorphic construct that connects observations at one level of analysis with those at another. A *state* can be defined at multiple levels from the neurochemical to the behavioral, from the physiological to the psychological. So there is a conceptual convergence across chapters that links together discussions of music, religion, out-of-body experiences, yoga, dopamine, and a host of other phenomena.

A number of historical and scientific themes play out across the volumes as authors draw upon overlapping sources of data to make their particular case. William James is frequently quoted, as are the books by Charles Tart. In his autobiographical Preface, Extending our Knowledge of Consciousness, Tart recounts encounters at various points in his career with the unwillingness of mainstream science to examine the extraordinary—but methodologically messy—phenomena of altered consciousness. Other authors also allude to the seemingly blind resistance of conventional science to take this stuff seriously.

The question of what does it take to generate mainstream support for investigating the potential that may be contained within specific altered states of consciousness remains unanswered. But these two volumes advance the case by making accessible the rich and diverse domains of experience and knowledge that humankind possesses. They serve both as a comprehensive set of references and as a readable historical, cultural, and psychological narrative that summarizes the current state of the many arts and sciences of altered consciousness.

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