

**Book Preview: Lucid Dreams: New Research on Consciousness During Sleep
(Edited by Jayne Gackenbach and Stephen LaBerge; Plenum: in press)**

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Among the mysteries of sleep, dreaming must surely be considered the most wonderful; then how much more so must be considered the lucid dream, in which dreamers know that they are dreaming and are in a certain sense awake, and yet are soundly asleep.

Lucid dreaming has probably been known since mankind had a word for "dream;" but it was not until the last few decades that the phenomenon gained credibility in the scientific world, and came to the awareness of the general public. A decade ago, at universities on opposite sides of the continent, we began to study lucid dreaming; our dissertations were the first research into the topic in this country. After completing our doctoral theses, we chaired a symposium on lucid dreaming at the annual meeting of the American Psychological Association. The present book grew out of that symposium. We have divided it into three sections: "Perspectives on Lucid Dreaming," "A New Approach to Dream Research," and "Applications and Implications." The first section provides background from literary and personal accounts, the second delineates the new wave of lucidity research, and the third presents potential psychotherapeutic applications and theoretical implications.

Lucid Dreaming Perspectives

The significance of dreaming to both cultures and individuals is highly dependent on the assumptions of the culture in question. In this section six chapters detail the historical, anthropological, philosophical and religious foundations of lucidity in various times and places. First to be examined is the changing view of lucid dreams throughout the development of Western Culture, based on the changing view of the role and reality of dreams. This chapter, written by Stephen LaBerge, traces the perspective from which lucid dreams have been seen from the earliest pages of Western history to the mid-1960's.

In the study of the mind we often find that the East has long ago developed systems of understanding and practice in areas we in the West are just beginning to explore. Lucid dreaming is no exception. In the following chapter, "Lucid Dreams in Indian and Tibetan Literature," George Gillespie, a Sanskrit scholar at the University of Pennsylvania who spent twelve years living and working in India, cites references to lucid dreaming ranging from such classics of Indian thought as the Upanishads and Yoga Sutras to the literature of Tibetan Buddhist meditation, in which lucid dreaming has long played an important role. Remarkably, for a thousand years Tibetan Buddhists have been practicing a form of yoga aimed at the maintenance of full waking consciousness during sleep and the control of the dream state.

The writings of Kilton Stewart resulted in many Westerners believing the Maylasian Senoi tribe had widely cultivated proficiency in dream control, and that the emphasis on dreams in their culture was somehow responsible for their peaceful way of life. Robert Dentan's chapter, "Lucidity, Sex and Horror in Senoi Dreamwork", critically casts considerable doubt on this notion. Dentan, an anthropologist at the State University of New York at Buffalo, notes that "recent publications have made it plain that much of the 'Senoi' ethnography with which Western dreamworkers are familiar is of dubious reliability". He points out that although the Senoi do place a high value on dreams, dream control expertise in the culture is the province of the few rather than the many.

Following these three chapters discussing cultural perspectives on lucid dreaming are three personal accounts of lucid dreaming, by individuals who have devoted considerable time and study to their lucid dreams. For G. Scott Sparrow, a clinical psychologist and author of an influential booklet on lucid dreams in the mid-1970's, dream lucidity has always been linked to his personal spiritual search, although he has also conducted empirical research on the phenomenon. Sparrow describes the characteristics of his lucid dreams which follow meditation, and argues (see also the chapter by Hunt and Ogilvie) for a relationship between meditation and lucidity in dreams, and also that lucid dreaming plays a role in facilitating the resolution of inner conflicts.

In "Without a Guru: An Account of My Lucid Dreaming", George Gillespie, describes his personal experimentation in lucid dreams and their religious-philosophical significance to him. Gillespie provides a unique account of his experiences with conscious "dreamless sleep" that followed his study of the Upanishads in India.

The final chapter in Section I was written by Alan Worsley, the first person to signal, by means of a prearranged set of eye movements while asleep in the laboratory, that he knew he was dreaming. As well as describing his laboratory and home experiments, he relates his childhood and adolescent experiences with lucid dreaming. Worsley has experienced a wide variety of types of lucidity; he describes sleep onset lucid dreams, imagination in dreams, and what he calls "super lucid dreams", a category of lucid dream which Worsley considers equivalent to "out-of-body experiences" (see also the Irwin and Blackmore chapters for discussions of the similarity and differences between these states).

Approach to Dream Research

In the mid-1960's, Charles Tart reprinted Frederik Van Eeden's classic paper in *Altered States of Consciousness*, giving many their first exposure to the topic of lucid dreaming. In recognition of Tart's invaluable contribution to the field we begin this section by reprinting his "From Spontaneous Event to Lucidity: A Review of Attempts to Consciously Control Nocturnal Dreaming" which deals with studies which have used, among other techniques, various forms of suggestion to affect the content of dreams, including overt presleep suggestions and posthypnotic suggestions. Tart concludes that lucidity presents the greatest potential for the control of dreams while they are happening.

There has been great interest in methods of entering the lucid dream state. In the chapter, "Lucid Dream Induction: An Empirical Evaluation", Robert Price and David B. Cohen, of the University of Texas at Austin, review the literature on the modes of initiation of lucidity. They begin by presenting a theoretical framework based on the concept of the duality of thought, and proceed to a discussion of the duality inherent in lucid dreaming. After reviewing presleep, physiological and dream content conditions associated with lucid dream initiation, they divide induction techniques into different categories, which are examined in detail. The authors conclude by noting that "lucid dreaming appears to be an experience widely available to the highly motivated."

With the advent of modern scientific interest in lucid dreaming came the desire to study the phenomenon in the laboratory. The first task of the pioneers of this research was to demonstrate the validity of claims of lucidity in dreams to the scientific community. In "The Psychophysiology of Lucid Dreaming", Stephen LaBerge, of Stanford University, describes the early work of scientific verification of lucid dreams as genuine phenomena of REM sleep, and how lucid dreaming offers great potential as a tool in the study of mind-body relationships. He characterizes the lucid dream state as being associated with periods of highly activated physiology within the REM state and also reviews studies of psychophysiological relationships obtained during REM lucid dreaming.

In "Lucid Dreams in Their Natural Series: Phenomenological and Psychophysiological Findings in Relation to Meditative States", Harry Hunt and Robert Ogilvie, of Canada's Brock University, rather than treating lucid dreaming as an isolated phenomenon of human experience, attempt to place it into a "natural series" composed of related phenomena, including out-of-body experiences, near-death experiences, autoscopic hallucinations, hypnagogic autosymbolism and particularly "Mindfulness" meditation. Ogilvie and Hunt describe their conception of the role of lucid dreams in experience and review their psychophysiological and phenomenological program of research relating lucid dreaming to meditation.

It is important in the laboratory study of lucid dreams to know the relationship between the intentions of the dreamer while awake and his ability to act on these intentions once in a lucid dream. Morton Schatzman, Alan Worsley and Peter Fenwick's chapter, "Correspondence During Lucid Dreams Between Dreamed and Actual Events," report on research carried out at St. Thomas's Hospital, London. They conclude that their subject (Alan Worsley) is capable of carrying out the complex dream acts planned when he was in the waking state, and, additionally, that he was able to accurately perceive external (nondream) cues.

Jayne Gackenbach, of the University of Northern Iowa, explores the question of the difference in subjective experience between lucid and nonlucid dreams in "Psychological Content of Lucid versus Nonlucid Dreams." She begins by reviewing past research on dreamer evaluations of the content of lucid and nonlucid dreams. She then presents new data: evaluations of lucid and nonlucid dreams, using the Hall and Van de Castle system of analysing manifest content. The new data set is composed of signal verified lucid dreams obtained in the sleep laboratory. Gackenbach concludes that lucid

dreams are more similar to than different from nonlucid dreams, but that the differences are not due to chance variations. Lucid dreams contain more auditory perception and cognitive activities, and have fewer characters than nonlucid dreams.

The facts that lucidity in dreams is the exception rather than the rule, and that some people seem to be much more likely than others to attain waking consciousness in dreams raises the question of what, if anything, predisposes one to a talent for lucid dreaming? In the last chapter of Section II, "Individual Differences Associated With Lucid Dreaming," Thomas Snyder, a school psychologist in Iowa, and Jayne Gackenbach examine data from four separable but not unrelated functional domains: oculomotor/equilibratory; visual/imaginal; cognitive; and personal/interpersonal. Snyder and Gackenbach interpret their widely ranging findings as generally supporting the model of the frequent lucid dreamer as field independent, relying on internal rather than external cues. They review Witkin's model of psychological differentiation, from which the construct of field independence is derived, and find numerous parallels between it and individual differences associated with the lucid dreaming ability.

Applications and Implications

The focus of third and last section of this volume is on what benefits the practice of lucid dreaming can offer to individuals. Material is presented on both the potential applications of lucid dreaming to self-growth and therapy and on theoretical implications of the emergence of conscious awareness in dreams. In the first of the two application chapters, Garfield, LaBerge, Fellows, Halliday, and Malamud individually present their ideas of the use of lucid dreaming for self-enhancement (see also the chapters by Sparrow and Gillespie). Garfield, author of the classic and highly influential book *Creative Dreaming*, lists in her introductory comments to "Clinical Applications of Lucid Dreaming" ten different benefits of lucid dreams. Each author then proposes his view of the advantages of lucidity. LaBerge, in "Self-Integration Through Lucid Dreaming," argues that dream lucidity can greatly facilitate the process of psychological integration; Peter Fellows in "Within the Lucid Dream," outlines his therapeutic approach and introduces his concept of the "dream speaker"; Gordon Halliday in "Clinical Utility Seen in Lucid Dreaming Ability", describes his use of lucidity as a treatment for nightmares; and finally, Judith Malamud, in "A Model for Lucidity Training As a Means of Psychological Growth," offers a therapy model that uses dream lucidity. She explores three different elements: the dreamer as a creative source of the dream; the dream environment as reflecting the self; and the dream state as an alternate reality. Garfield closes the chapter with "Creative Lucid Dreams", in which she claims that one can deliberately draw on the creative power of dreams through lucidity.

Paul Tholey's chapter, "A Review of a Program of Psychotherapeutic Application of Lucid Dreaming," summarizes his well-developed program of therapy utilizing lucid dreams. He begins by recounting how he derived his first ideas about the therapeutic applications of lucidity from his own lucid dreams. Tholey then delineates the basic theoretical principles he uses in his work with dream lucidity, from the field

theoretical approach of Gestalt psychology, and covers some of his empirical research, focusing on the role of interactions with other dream figures. He recommends six potential steps for dealing with hostile figures in dreams and concludes with some case studies.

The next two chapters address the controversy concerning whether or not the out-of-body experiences (OBE) and lucid dreams are the same experiences under different labels. In "Out-of-the-Body Experiences and Dream Lucidity: Empirical Perspectives," Harvey Irwin of the University of New England, Australia, concludes that although there is a highly reliable and stable statistical relationship between frequency of reporting both experiences, the correlation is small. He also reviews a wide range of research on people's associations to the OBE and/or the lucid dream and further concludes that in addition to definitional differences there are numerous differences in the meanings ascribed to the two types of experience.

A somewhat different view is taken by Susan Blackmore, of the Brain and Perception Laboratory of the University of Bristol, England, in "A Theory of Lucid Dreams and OBE's." Blackmore presents a theoretical model dealing with processes of mental representation and perception that encompasses both dream lucidity and OBEs. Her model can be extended beyond lucid dreams and OBEs to account for other altered states of consciousness.

In the next chapter of this volume, Wynn Schwartz and Mary Godwyn of Boston, probe the fundamental question of the difference between waking and dreaming reality. Their contribution is an analysis of "Action and Representation in Ordinary and Lucid Dreams" from the perspective of descriptive psychology. They assert that the central difference between dreaming and waking activity is that while awake our action is constrained by the demands of external reality; while we dream, we are limited only by semantic or pictorial constraints of what we can coherently imagine. The final chapter in this text is by Alan Moffitt and his colleagues at Carleton University, Sheila Purcell, Robert Hoffman, Ross Pigeau, and Roger Wells. They consider the scientific significance of lucid dreaming, especially for our understanding of the function of dreaming. They argue that the phenomenon of dream lucidity has two consequences to such an understanding. It requires us to revise our understanding of what it means to be awake and what it means to be asleep. Secondly they point out that one can develop a new form of competence, not available during the waking state.

Lucid dreams are less constrained than waking reality, but constrained nevertheless by psychophysiological limitations on what the dreamer's brain can do, as well as the dreamer's expectations about what is possible. At the other end of the spectrum, the Tibetan yogis of the dream state assert that complete control of dreaming is possible, suggesting that the observed limitations of dream control are ultimately mental, not physiological. Which of these two points of view is closer to the truth, is one of the many exciting questions remaining for future research.