

- Kuper A., & Stone, A. (1982). The dream of Irma's injection: A structural analysis. *American Journal of Psychiatry*, 139, 1225-1234.
- Levi-Strauss, C. (1969). *Totemism*. London: Pelican Books.
- Levi-Strauss, C. (1977). *Structural anthropology Volume 1*. London: Peregrine Books.
- Levi-Strauss, C. (1978). *Structural anthropology Volume 2*. London: Peregrine Books.
- Molinari, S., & Foulkes, D. (1969). Tonic and phasic events during sleep: Psychological correlates and implications. *Perceptual and Motor Skills*, 29, 343-368.
- Rechtschaffen, A. (1978). The single-mindedness and isolation of dreams. *Sleep*, 1, 97-109.
- Reyher J., & Smeltzer, W. (1968). Uncovering properties of visual imagery and verbal association. *Journal of Abnormal Psychology*, 73(3), 218-222.
- Rycroft, C. (1981). *The innocence of dreams*. Oxford University Press.
- Seligman, M., & Yellen, A. (1987). What is a dream? *Behavior Research and Therapy*, 25, 1-24.
- Ullman, M. (1969). Dreaming as metaphor in motion. *Archives of General Psychiatry*, 21, 696-703.

Lucid Dreaming as a Transpersonal (Meditational) State: A Potential Distinction from Dream-work Methods

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As interesting as we find Akhter Ahsen's (1988) method of variously re-dreaming the dream in wakefulness as an addition to current therapeutic dream-work, it may be a mistake to link his approach to the growing literature on lucid dreams. His comments show that he understands lucid dreaming as a sort of mental waking up in the dream, allowing primarily its deliberate modification. This seems to miss the characteristic sense of clarity and/or peak experience in these dreams that appears precisely when they are not controlled (or over-controlled) and which links them to similar states occurring within meditative practice and other altered states of consciousness. This misunderstanding is widespread and probably stems from the actual proximity of inexperienced lucid dreamers to physical awakening and the tremendous emphasis on dream control in the more popular literature on lucid dreams.

In contrast, our research suggests that lucid dreams are something more than a mental waking-up in the dream — especially since forms of confusion and clouding characteristic of ordinary dreams can continue even within the most stabilized lucid dreaming. Similarly, the idea of a "struggle" between dreaming and waking consciousness applies only to its unstabilized levels or to the sort of deliberate psychic adventuring emphasized in media accounts. Allowed to deepen in its own way, with a minimum of control (other than to stay in the dream), lucidity seems to result in the enhanced mental clarity and blissful release that also follows from the highly similar "witness" or "mindfulness" techniques of medita-

tion, with their special development of a detached, receptive, observational attitude and its integration with ongoing functioning. The Buddhist and Vedic traditions have developed lucid dreaming precisely as a way to extend meditation into dreaming. This strongly suggests that lucid dreams and meditation must involve common cognitive processes — presumably including the same detached receptivity, imaginative vividness and involvement, and nonverbal spatial abilities (Hunt, 1989; Snyder & Gackenbach, 1988).

It is in this context that Ahsen's discussion of Hilgard's "hidden observer" effect in hypnosis is quite helpful, in that the stabilized "witness" set characteristic of both meditation and lucid dreaming may well also be reflected in the "hidden observer" phenomenon. Successful "witnessing" in Transcendental Meditation may well be a further development of that residual self-awareness that both hypnotized subjects and those exposed to sudden unexpectedly stressful events often describe. The out-of-body experience, empirically correlated with the tendency to dream lucidly, would show the same detached self-reflective capacity manifested more exclusively within a mode of visual imagination.

Research by Hunt and Ogilvie (1988) found that lucid dreaming in a group of long-term meditators was significantly correlated with the length of meditative practice. In addition, both the frequency of lucidity and length of meditative practice in these subjects was correlated with the appearance of archetypal or transpersonal themes in their dreams (white light, geometric mandala patterns, mythic figures). This suggests that long-term lucid dreaming operates on consciousness much like long-term meditation, producing identical transformations of awareness.

Along similar lines, a study by Gackenbach, Moorecroft, Alexander, and LaBerge (1987) on experienced TM meditators has shown elevated levels of lucid dreaming, similarities in the EEG and autonomic measures between those dreams and waking meditation, and a gradual development of lucid dreaming toward a less active, more receptive, awareness termed "witnessing" in the TM tradition.

Physiological Parallels

Physiological parallels between lucidity and meditation seem clear. Except that the individual is awake, depth of somatic arousal during meditation is equivalent to that of light sleep (Kesterson, 1985) but is not the same as light sleep (West, 1980). However, REM sleep shows increases in oxygen consumption and heart rate over stages 1 and 2 NREM and lucid REM is significantly higher on these dimensions than nonlucid REM (LaBerge, 1985, 1988; LaBerge, Levitan, & Dement, 1986). This lucid somatic arousal might seem to argue against our parallel. LaBerge (personal communication, June 1987) has pointed out that the continued somatic arousal after the eye movement signal which he has found could be an artifact of

demand characteristics, that is, his subjects are typically told to signal when they know they are dreaming and then to do a predesigned task; active engagement in a dream task with consciousness could keep the system somatically aroused.

A study by Gackenbach et al. (1987) sheds some light on this apparent discrepancy. They had a long-term meditator who during meditation showed physiological signs of transcending correlating with his self-reports. This individual claimed that he was conscious of his true state throughout his sleep cycle, that is, he knew he was sleeping and sometimes dreaming during the entire night. This ability is called "witnessing sleep" and its stabilization is thought to be a result of the regular practice of meditation (Alexander, Boyer & Orme-Johnson, 1985). In the sleep laboratory this meditator was able to signal with prearranged eye movements that he knew he was dreaming/sleeping during REM, Stage 1 and Stage 2 sleep. Interestingly, and in line with the present hypothesis, he showed physiological arousal around the eye movement signal but, contrary to the data of LaBerge et al. (1986), he rapidly returned to quiet somatic levels shortly thereafter. With at least this one subject signaling was somatically arousing but his self-reported continued consciousness in sleep was not. This study tentatively confirms that as lucid dreaming unfolds to witnessing dreaming, somatic arousal decreases and the equation of consciousness in sleep to states desired by the practice of meditation becomes firmer.

EEG work with dream lucidity is unfortunately fairly limited at this point, with the bulk having been done by Ogilvie, Hunt and associates (Hunt & Ogilvie, 1988; Ogilvie, Hunt, Sawicki & McGowan, 1978; Ogilvie, Hunt, Tyson, Lucescu & Jenkins, 1982; Tyson, Ogilvie & Hunt, 1984). In this series of studies they sought to demonstrate the lucidity-meditation connection by examining alpha waves in lucid and nonlucid REM. Reviews of the EEG and meditation literature have fairly consistently pointed to the association of alpha with meditation (Taneli & Krahne, 1987; West, 1980). The Ogilvie and Hunt group found, consistent with the meditation literature, variations in alpha as a function of stage of lucidity. Specifically, they found increased alpha in prelucid REM periods and early in lucidity and have likened this to the access phases of waking meditation. Similarly, West (1980) and Taneli and Krahne (1987) have summarized the EEG and meditation literature for power measures and note changes as a function of stage of meditation. Both reviewers agree that at the beginning and at the end of meditation, increases in alpha are observed. Later, theta occurs, often intermixed with alpha, and at the "transcending" or "samadhi" phase bursts of beta occur.

Dream Lucidity and Dream Witnessing: Are They Related?

Some clarity about this relationship can be obtained by looking at the phenomenological relationship between lucidity and witnessing in sleep.

Whereas lucidity has been characterized by Moffitt, Purcell, Hoffman, Pigeau, and Wells (1986) as the capstone of their 9-point scale measuring self-reflectiveness in sleep, Alexander et al. (1985) argue that it can also be conceptualized as a developmental bridge to witnessing dreams. In other words, the evolution of self-reflective consciousness does not end with lucidity. One can move further along the continuum to a more quiet, uninvolved state of awareness that is experienced as having no boundaries. According to Alexander et al. (1985), this stage, known as witnessing, most often emerges spontaneously. However, it can be phenomenologically viewed as falling along a continuum.

In interviews with long-time meditators Gackenbach (in press) has been able to conceptualize the relationship of lucidity to witnessing in terms of five basic stages. In order to understand these stages, one must think of the progression, at least in part, as the dreamer shifts from being an "actor" in the dream to the "observer" of it. The stages are:

Stage One. Initially in lucid dreaming, the actor is dominant. The only role the observer plays is to recognize, however briefly, that the self is dreaming. Despite this recognition, the feeling is still that the dream is "out there" and that the self is "in here" and, further, the dream ego ("in here") is very much involved with what is happening "out there."

Stage Two. At some point it may occur to the dreamer that what is "out there" is actually "inside" or "I am dreaming" rather than "this is a dream" may be the attribution. Two paths seem open to the dreamer. The dreamer may continue active engagement of the dream events all the while recognizing that it is the self represented by the dream ego that is involved; or, shift his/her attention to the "inside I," allowing the "outside I" — the dream scene — to fade.

Stage Three. Lucid dreams in this stage tend to be short. A meditator describes it as a thought that rises which you take note of and then let go of. "The action of the dream," he says, "is not dominant. It does not grip you so that you are identified with it as opposed to the first step in which the focus was more on the active [participation]."

Stage Four. In this stage an "inner wakefulness" dominates, you do not have dreams or in any case you do not remember having dreams.

Stage Five. Once the dreamer is firmly embedded in this transcendental state or "pure" consciousness while sleeping, she/he moves into the experience. Now the "dream" will characteristically take symbolic forms not generally found in nonlucid or lucid dreams of an earlier stage: They will be much more abstract and have no sensory aspects to them, no mental images, no emotional feelings, no sense of body or space. There is a quality of unboundedness to them. "One experiences oneself to be a part of a tremendous composite of relationships," a meditator explains. These are not social or conceptual or intellectual relationships, only "a web of

relationships. I am aware of the relationship between entities without the entities being there."

Conclusions

The stabilization and development of lucid dreaming leads in a very different direction than the more actively manipulative methods associated with current dream-work techniques. It is only the control side of lucid dreaming that resembles some of these methods, and so provides the basis for Ahsen's comparisons. What Ahsen overlooks is the characteristic and more immediate experiential impact of lucid dreaming, which places it closer to the transpersonal traditions of meditation and psychedelic drug research than to traditional psychotherapies. Ahsen's work belongs more properly with the latter, where the sort of dream-work techniques he so carefully describes allow subjects to develop successive and constructive insights into personal conflicts in living which would otherwise remain largely unconscious. Fully stabilized lucid dreaming takes us in the direction of the transpersonal theories. There, subjectively powerful states of consciousness release and ecphorate deep levels of mind, potentially affording a directly curative impact of the sort associated with the classical spiritual traditions, psychedelic drugs, and the Jungian emphasis on imaginative-archetypal experience.

Of course, these different therapeutic traditions are complementary, as seen more specifically in the complex relations between dream-work methods of interpretation and reliving and the more experiential impact of lucid and archetypal dreams. Just as there are different kinds of clients in therapy, there are different kinds of dreams (and dreamers) — some warranting more emphasis on decoding and new personal insight, others calling more for the amplification of already transformative dream experiences. Our only caution is that the use of the term "lucidity" for dream-work during wakefulness is as likely to confound important differences between forms of dreaming (and methods of personal transformation) as it is to locate any underlying commonalities in some very different orientations.

REFERENCES

- Ahsen, A. (1988). Prolucid dreaming: A content analysis approach to dreams. *Journal of Mental Imagery*, 12, 1-70.
- Alexander, C., Boyer, R., & Orme-Johnson, D. (1985). Distinguishing between transcendental consciousness and lucidity. *Lucidity Letter*, 4(2), 68-85.
- Gackenbach J.I. (in press). From paradoxical sleep to paradoxical dreaming: A development model for consciousness in sleep. In J.I. Gackenbach & A. Sheikh (Eds.), *Dream images: A call to mental arms*. New York: Baywood.
- Gackenbach, J., Moorecroft, W., Alexander, C., & LaBerge, S. (1987). Physiological correlates of "consciousness" during sleep in a single TM practitioner. *Sleep Research*, 16, 230.

- Gackenbach, J.I., & Moorecroft, W. (1987). Psychological content of "consciousness" during sleep in a TM subject. *Lucidity Letter*, 6(1), 29-36.
- Hunt, H., & Ogilvie, R. (1988). Lucid dreams in their natural series: Phenomenological and psychophysiological findings in relation to meditative states. In J. Gackenbach & S. LaBerge, (Eds.), *Conscious mind, sleeping brain* (pp. 389-417). New York: Plenum Press.
- Hunt, H., & Popham, C. (1987). Metaphor and states of consciousness: A preliminary correlational study of presentational thinking. *Journal of Mental Imagery*, 11, 83-100.
- Hunt, H. (1989). *The multiplicity of dreams*. New Haven: Yale University Press.
- Kesterson, J. (1985). *Respiratory control during transcendental meditation*. Doctoral dissertation, Maharishi International University, Fairfield, Iowa.
- LaBerge, S. (1985). *Lucid dreaming*. New York: Ballantine.
- LaBerge S. (1988). The psychophysiology of lucid dreaming. In J.I. Gackenbach & S.L. LaBerge (Eds.), *Conscious mind, sleeping brain: Perspectives on lucid dreaming*. New York: Plenum.
- LaBerge, S., Levitan, L., & Dement, W.C. (1986). Lucid dreaming: Physiological correlates of consciousness during REM sleep. *Journal of Mind and Behavior*, 7, 251-258.
- Moffitt, A., Purcell, S., Hoffman, R., Pigeau, R., & Wells, R. (1986). Dream psychology: Operating in the dark. *Lucidity Letter*, 5(1), 180-196. (a version of this paper also appears in *Conscious mind, sleeping brain* (1988).
- Ogilvie, R.D., Hunt, H.T., Sawicki, C., & McGowan, K. (1978). Searching for lucid dreams. *Sleep Research*, 7, 165.
- Ogilvie, R.D., Hunt, H.T., Tyson, P.D., Lucescu, M.L., & Jenkins, D.B. (1982). Lucid dreaming and alpha activity: A preliminary report. *Perceptual and Motor Skills*, 55, 795-808.
- Snyder, J., & Gackenbach, J. (1988). Individual differences associated with lucid dreaming. In J. Gackenbach & S. LaBerge (Eds.), *Conscious mind, sleeping brain* (pp. 221-259). New York: Plenum Press.
- Taneli, B., & Krahné, W. (1987). EEG changes of transcendental meditation practitioners. *Advances in Biological Psychiatry*, 16, 41-71.
- Tyson, P., Ogilvie, R., & Hunt, H. (1984). Lucid, prelucid, and nonlucid dreams related to the amount of EEG alpha activity during REM sleep. *Psychophysiology*, 21, 442-457.
- West, M.A. (1982). Meditation of self-awareness: Physiological and phenomenological approaches. In G. Underwood (Ed.), *Aspects of consciousness: Vol. 3: Awareness and self awareness*. New York: Academic Press.
- West, M.A. (1980). Meditation and the EEG. *Psychological Medicine*, 10, 369-375.