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LUCID DREAMING PROJECT

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This research project was conducted through the mail with selected members of the A.R.E. The data which was collected and analyzed helped to fulfill the dissertation requirement for the author's doctorate in experimental psychology at Virginia Commonwealth University, Richmond, Va.

1. Why Study Lucid Dreams?

Although lucid dreams, awareness of dreaming while in the **dream state**, are not mentioned directly in the Edgar Cayce readings, the conceptually similar phenomena of astral projection or out-of-body experiences (OOBE) are touched upon. (Sparrow, 1976) The exact relationship between OOBEs and dream lucidity is unknown. Some feel that they represent different perceptions of the same experience (Sparrow, 1976; Schapiro, 1975-76), while others view them as conceptually distinct phenomena with some similarities. (Green, 1968;

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2. Is Dream Lucidity a New Phenomenon?

Donahoe, 1974) Lucid dreaming was the focus of the present study.

The potential importance of this state of unconsciousness can be seen in several areas of the social sciences. In terms of the philosophical or religious significance of these experiences, Sparrow (1976) noted that lucid dreams allow the dreamer to meditate on the reality behind the dream images and achieve religious growth by realizing that the waking state is a self created dream as well. The notion that lucidity can help one to realize the dreamlike quality of life has been pointed out by several other authors (Faraday, 1974; Rapport, 1948; Tart, 1969) and has its origins in Tibetan Buddhism. (Chang, 1977; Evans-Wentz, 1958)

In a less esoteric vein, the lucid dream has been found to be helpful in increasing psychological functioning, especially when used in conjunction with some form of psychotherapy. (Boss, 1958; Corriere & Hart, 1977; Rossi, 1972) This special dream state has also been used to observe the causes of normal dreams (Brown, 1936); to have exciting dream experiences (Fox, 1972); to accept the responsibility for what one has neglected (Sparrow, 1976); to be enjoyed as "simple-minded children" (Warman, 1947, p. 92); and as vehicles of creative thought. (Donahoe, 1974)

With the resurgence of the study of consciousness of psychology (Natsoulas, 1978) dream lucidity should be of particular interest, as it involves the paradoxical report of conscious awareness during the unconscious state of sleep. Unfortunately, the scientific investigation of lucid dreams has been largely limited to individual efforts at recording and analyzing personal lucid dreamers. (Arnold-Foster, 1921; Brown, 1936; Fox, 1962; Garfield, 1974; Sparrow, 1976; Van Eeden, 1913) A few surveys have been completed (Baker, 1977; Green, 1968; Husband, 1936; Palmer, 1974), but experimental research has just begun. (Belicki & Hunt, Note 1; Ogilvie, Hunt, Sawicki & McGowan, Note 2) Consequently, a systematic investigation of the lucid dream was undertaken with 90 A.R.E. members who had previously participated in a month-long, day-by-day dream recording project. In the present study they completed two personality questionnaires and the Lucid Dreaming Questionnaire, which

was developed by the author to evaluate emotional, cognitive, and perceptual aspects of both lucid and non-lucid dreams. (See 6. *Substituted Method for a more* detailed explanation of this investigation.)

There are two potential historical antecedents to dream lucidity which can be gleaned from ancient dream convictions. The belief in the soul leaving the body during sleep is similar to contemporary views that the out-of-body experience is the same as the lucid dream. (Evans-Wentz, 1958; Green, 1968; Monroe, 1971; Sparrow, 1976; Van Eeden, 1913) This belief in the splitting of the "soul" from the body during sleep can be traced to India (Anonymous, 1947), Burma (Scott, 1947), and Bengal (Chandra, 1947) among the Hindus and Buddhists.

A second belief system which may represent an historical antecedent to lucid dreaming is the view that both the dream and waking worlds are "dream-like" realities. This perspective can be found in both India (Woods, 1947) and China. (Tzu, 1947) This form of speculation about the nature of reality of the dream is not limited to the Eastern world. Many of the Western world's greatest thinkers have so speculated. (Walker, 1974) In fact, some have discussed the lucid dream without explicitly labeling it. (Descartes, 1947; St. Augustine, 1947) For instance, an early Christian theologian, metaphysician, and man of letters, who spoke of the lucid dream in a letter to a friend written between 392 and 430 A.D., was St. Augustine. (1947) He tells of the dream of a physician of his acquaintance. In this dream, St. Augustine narrates, a youth asked the physician, Gennadius, whether it was when asleep or awake that he had seen what he had just been told regarding life after death. In the dream the physician replied to the youth, " 'In sleep'...The youth then said: 'You remember it well; it is true that you saw these things in sleep, but I would have you know that even now you are seeing in your sleep.' Hearing this, Gennadius was persuaded of its truth and in his reply he declared that he believed it. Then this teacher went on to say: 'Where is your body now?' He answered: 'In my bed.'" (p. 139) This is clearly a lucid dream.

Descartes (1947), Pascal (1947) and Schopenhauer (1947) all addressed the problem of how one can tell if one is awake or dreaming. Descartes ponders in his *Meditations*, written around 1600: "I have been deceived in sleep by similar illusions ...there exist no certain marks by which the state of waking can ever be distinguished from sleep." (p. 210) In the middle of the 17th century, Pascal (1974), who after years of scientific investigation entered a religious community, wrote in his

Thoughts that "no one has any certainty apart from faith, whether he wake or sleep." (p. 212) In an apparent reference to lucid dreaming, he noted that "as we often dream that we dream, and heap vision upon vision, it may well be that life itself is but a dream, on which others are grafted, from which we wake at death." (p. 213) Finally, the German philosopher Schopenhauer (1947) wrote between 1778 and 1860: "...we have dreams; may not our whole life be a dream? or more exactly, is there a sure criterion of the distinction between dreams and reality?" (p. 240)

These two historical antecedents to dream lucidity (that is, the confusion of dreaming with reality and the soul leaving the body during sleep) can also be found among the primitive tribes of the world. (Heywood, 1968; Walker, 1974) Walker explains that "men in primitive societies believe that no distinction exists between dream life and waking life." (p. 94) Africans (Van de Castle, 1976) and Australian aborigines (Stanner, 1958) are a few cultures in which such beliefs are held. Walker (1974) recounts an African bushman's comment regarding dreaming: "...we are all being dreamed by a dream," (p. 173) Among the Cherokee Indians of North America, if a dreamer is bitten by a snake in the dream, when he awakens he is treated for that snake bite exactly as if it had "really" happened. (Van de Castle, 1976) The view of dreams as representing a time when the soul leaves the body is found among the African Ashantis (Rattray, 1947) and the Kiwai Papuans of British New Guinea. (Landtman, 1947) characterized by a sense of control over the dream. It appears, then, that lucid dreams are conceptually distinct dream experiences. This conclusion is further supported by a second statistical analysis in which the emotional, cognitive and perceptual elements of dreams were individually examined across lucid and non-lucid dreams. In each case dream lucidity was found to be a conceptually distinct dimension from dream non-lucidity.

That is, both positive and negative emotions were more likely to occur in lucid than in non-lucid dreams, as illustrated in the following dream:

"I was at my grandmother's old house and I went into the backyard and my grandfather (who died last year) was sitting there talking to all my cousins. I went hysterical, screaming and crying, because in my dream my grandfather never died but all my relatives said he did. I was very frustrated but I knew I was dreaming." (P.M.) Perceptions such as vision, sound, color, voices, and kinesthesia were found to be more vividly experienced in lucid than non-lucid dreams. For instance:

"I was being chased by a horrible-looking witch. I was doing okay and keeping ahead of her with the help of a male cousin of mine. All of a sudden I lost my cousin and was not doing as well. It kept running through my mind for me just to wake up and it would be over, but

I kept it going. I could hear the witch's delighted laugh and see her nearing me. I tried to get up, but I could not stand up. In desperation I made myself wake up before she got me. My heart was racing, I was sweating and overheated when I awoke, as if it had actually happened." (K.H.)

3. *What Happens During a Lucid Dream?*

It was found in this research project that lucid dreams are primarily characterized by a sense of control over the dream and are secondarily characterized by a sense of physical, cognitive, and emotional balance. Here is a lucid dream which illustrates these concepts:

"I was walking through a small grove of fruit trees and one of my sisters came up to me and told me my oldest sister and my father were dead. They had just died in a car accident. When she told me that, I thought that everything was all right because I would wake up and my sister and father would be

alive." (K.R.) Conversely, non-lucid dreams were found to be primarily characterized by their perceptual **qualities and secondarily**

Within the cognitive or intellectual processing domain lucid dreams were slightly more verbal than non-lucid dreams. Additionally, one was more likely to ask the question, "What is real?" while in a lucid dream. (Gackenbach, 1978) For example:

"There was an open house at the elementary school which I attended and I was in the second grade classroom. Around the inside of the room, cars were driving around. One stopped and said that they would take me home, so I got in. The car was driving down a semi-familiar road and I was getting scared so I started to slap my face and pinch myself but I wasn't waking up. Then a clown (who was in the front seat) turned around and said, 'Don't try to wake up, because you won't be able to,' and started to laugh." (R.D.)

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4. *Who Is Likely to Experience Dream Lucidity?* A self concept difference was found between frequent and infrequent lucid dreamers. That is, frequent lucid dreamers were less likely to be tense, anxious, or neurotic and more likely to have a high ego strength than infrequent lucid dreamers. Neither group differed, however, from non-lucid dreamers with regard to these personality variables. This is especially provocative when one considers the philosophical background and psychotherapeutic implications of these dreams. Tibetan Buddhist Yoga characterizes dream lucidity as an integral step toward "spiritual enlightenment" (Chang, 1977), while Corriere and Hart (1977) have suggested that reality-based dreaming is positively related to integrated psychological functioning. Of course, the lack of a self-concept difference between the

two lucid dreaming groups and the non-lucid dreamers is puzzling.

Frequent and infrequent lucid dreamers also differed in terms of several personal experience variables. Subjects who had never or infrequently experienced lucid dreams held more positive attitudes toward and were more involved with yoga, an Eastern philosophy that supports the lucid dream as a part of the path to enlightenment (Chang, 1977) than those who reported frequently experiencing dream lucidity. Another finding, which bears on this relationship, is the extent to which participants in the present study were meditating. Not only did frequent lucid dreamers display less interest in yoga, they were also less likely to have been meditating—a practice often associated with Eastern philosophical perspectives—during the period in which they had filled out the A.R.E. Workbook Questionnaire administered several months prior to the original A.R.E. dream project. (Reed, Note 3) It is tentatively concluded that involvement in Eastern philosophical activities does not guarantee frequent lucid dreaming. (Gackenbach, 1978)

mation-processing view of dreaming. According to this perspective, certain presleep stimuli elicit a memory, or "old program," which is "played" during the dream. In the case of the lucid dream, this old program is the individual's memory of the difficulty he had distinguishing the dream from reality as a child.

According to the hypnopompic/hypnagogic view lucid dreams may be an artifact of the arousal from sleep processes. A person may be partially awake but not fully sure of it. Consequently he mislabels his experience, calling it a dream rather than a waking fantasy.

The data collected in this study resulted in mixed conclusions regarding these two theoretical views of lucid dreaming. More research is required to determine clearly their potential for explaining dream lucidity. However, since both the old program/childhood memory and the arousal from sleep views emerged from the same statistical analysis, it may be that the former hypothesis characterizes lucid dreams which occur as escape mechanisms from nightmares, whereas the latter describes lucid dreams which occur due to incongruent dream elements. In other words, these hypotheses may represent two different types of lucid dreams.

6. *Substituted Method* A study was done with 90 A.R.E. members who had a mean age of 45 and had previously participated in a month-long, day-by-day dream recording project. In the present study, lucid dreams were examined in terms of the personality characteristics and cognitive styles of those who report such experiences. A detailed content analysis of lucid dreams was also undertaken. Prior to their participation in the present study, project participants had also completed two personality scales, one measuring anxiety (IPAT Anxiety Scale

Questionnaire; Cattell & Scheier, 1957) and another measuring personal problems (Mooney Problem Check List; Mooney & Gordon, 1941), both before and after their month of planned dream recording. (Reed, Note 3) Only pretested person variables from this previous A.R.E. dream project were included in the data analysis for the present study. Several years later (that is, the present study) these same A.R.E. members were recontacted and asked to complete three questionnaires: the Sixteen Personality Factor Questionnaire (Cattell, 1974), the Group Embedded Figures Test (Witkin, Oltman, Raskin & Karp,

5. Are There Psychological Theories Which Might Explain Dream Lucidity?

Two perspectives which would bring dream lucidity in line with contemporary psychological theorizing can be posited: the old program/childhood memory view and the hypnopompic/hypnagogic view. The former is derived from the work of cognitive theorist Piaget (1969) and Breger's (1969) infor

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C. hearing

1971), and the Lucid Dreaming Questionnaire. (LDQ; Gackenbach, 1978) The third scale was developed by the author to evaluate emotional, cognitive, and perceptual aspects of lucid and non-lucid dreams. For instance, project participants were asked about their emotions during lucid, ordinary, and vivid dreams:

D. smelling

E. taste

F. touch

G. temperature

To what extent do you typically feel each of the following emotions at the onset of your lucid dreams, during your lucid dreams, during your ordinary dreams, and during your vivid dreams?

G. pain

cannot

J. limb movement

frequently

never
answer

4

3

2

The cognitive dream domain was tapped with questions such as:

lucid onset

during lucid

during ordinary

during vivid

A. positive emotions

To what extent do you feel that you **have** volitional control **over** each of the following types of dreams, *while you are experiencing the dream*? That is, to what extent do you feel **that you can do what you want to in dreams? This is as versus** the feeling that the dream is just happening to you and you **have no sense of control over the events as they occur.**

B. negative emotions

C. equal amounts of negative & positive emotions
complete control

no control

does not

apply

D. emotionally flat
or neutral

Most perceptual modalities **were** tapped in this question from the LDQ:

A. lucid dream

B. ordinary dream

To what extent have you experienced each of **the** following sensory modalities during **your** lucid dreams, ordinary dreams, and vivid dreams?

C. vivid dream

and:

not at all

frequently

To what extent do you remember **your** waking life while **experiencing** the lucid dream? Check only **one**.

lucid **dream**

ordinary dream

vivid dream

A. memory seems so complete as to be more vivid than waking life memory

A. vision

LB. complete unimpaired memory of waking life

B. color

LC. most of memory intact with some gaps

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D. retain about half of memory

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E. retain only bits and pieces of memory

F. generally no memory of waking life with a few exceptions

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LG. no memory of waking life

H. does not apply

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Information regarding the frequency and content of lucid and non-lucid dreams was therefore available for data analysis from two sources. The daily dream tally sheets which were kept by the subjects during their participation in the original A.R.E. dream research project (Reed, Note 3) provided one source; while the LDQ, administered during the current research project, provided another source.

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7. Conclusion

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Although this research project has shed some light on the lucid dreaming

experience, a final decision as to the nature of this experience remains to be made. Interestingly, in the last couple of years lucid dreams have begun to receive the serious attention of sleep and dream researchers. This is encouraging because of the potential importance of these experiences. This **study represents an initial inroad into a provocative and exciting area of spiritual development.**

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