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Lucid dreaming: the third eye

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Lucid Dreaming: The Third Eye

“Only in your dreams!” The quintessential phrase expressing the awful truth that an ideal, sadly, will not become reality. Sometimes, however, our dreams can become realities. Lucid dreaming is type of dream state in which the dreamer suddenly becomes aware of the fact that she or he is dreaming. Consequences vary, but for some people this state can lead to an incredible ability to control their surroundings from flying to creating objects. It is an ability that is helped by innate skill, but is, according to lucid dream researcher Stephen LaBerge, something anyone can learn with enough practice.

Sounding very much like a cult hoax, much of the information on lucid dreaming remains restricted to internet forums. Surprisingly however, the forums regularly present information that is also posited in scientific studies. Stephen LaBerge is a pioneer in studies of Lucid dreaming (LD) and the scientific study of dreaming in general (oneirology). LaBerge is founder of the Lucidity Institute, which provides instructive material on inducing and controlling Lucid Dreams. LaBerge describes LD as the ability to “remember the circumstances of waking life, to think clearly, and to act deliberately upon reflection, all while experiencing a dream world that seems vividly real”². The two major indicators of lucidity are “volition” and “reflective awareness.” Rather than vaguely dreaming an apple, you may see it as if it were in front of you, think “I’m dreaming this”, and then choose to give it a bite. Like Neo in the Matrix, the individual can manipulate this alternate reality and even learn to control it, but their ability to do so depends on their degree of confidence. In order to successfully fly, a dreamer must assume that they can fly in order to do it, rather than deliberately will it to happen. It’s almost as though one tosses an idea to the unconscious gently and the unconscious construes it.

What is the physiological basis for such a state? Understanding the lucid state has a lot to do with understanding the non-Lucid dreaming state, which is still enigmatic for scientists. Most information about the sleep state comes from EEG (electroencephalography) studies, which read the electrical activity of neurons on the scalp. These studies reveal

unique electrical activity for different sleeping stages. REM (rapid eye movement) is characterized by low voltage and high frequency signals (alpha waves or 18-13Hz), very similar to not only awake, but highly active brain waves. In contrast to the four stages of non-REM sleep, REM exhibits random wave patterns. Thus, many a scientist has been tempted to adopt the anti-Freudian stance that dreams are merely random neuronal activity. The REM dream is a full-fledged hallucination of every sensory system: visual, auditory, taste, skin sensory, balance, and, of course, the higher level functioning areas of consciousness including emotion and memory. The only thing holding you back from acting out this psychotic alternate state of consciousness in your bed sheets is a REM-characteristic body paralysis. This paralysis is known as muscle atonia. Atonia and desynchronized waves occur in the *tonic* or continuous stage of REM sleep.

The second *phasic* stage is superimposed on the former intermittently and involves bursts of rapid eye movement and irregularities of respiration and heart rate.¹ This is the stage of REM in which most LD occurs, possibly due to the spontaneous nature of sudden lucidity, which is parallel to the spontaneity of phasic REM.² One of the strongest characteristics of both stages of REM sleep is a decreased activation of the dorsolateral prefrontal cortex (the area on the upper, outside front of the brain). This area is important for waking consciousness symptoms including aspects of attention, self-reflection, realization, and maintaining thoughts. The decreased activity of this area may be due to inhibition from a neurotransmitter signaling molecule named acetylcholine, which is released in greater quantities during REM3. This is why you never think to question what you are seeing in the dream world, or to question yourself. The prefrontal cortex provides many of these functions that we would call logical or common sense. It allows us to plan, self-reflect, pay attention, and spontaneously remember or become aware. It may be that LD is the spontaneous reactivation of these inactive prefrontal cortex areas.¹

Frequent transitory arousals, possibly connected with the phasic state of REM, were noted by LD patients. Many psychophysicologists posited that “micro-awakenings” were responsible for the sudden prefrontal activation that resembled the waking state and, thus, responsible for lucidity.³ However, empirical evidence for LD was still lacking until

LaBerge found a way to demonstrate the occurrence of lucidity without experiencing the lucidity. His findings did not entirely confirm the original hypothesis that LD occurred with “micro-awakenings.” Instead they showed that LD mostly occurred while already in sleep, not from “micro-awakenings” that supposedly happen periodically in REM. LaBerge demonstrated the empirical validity of LD by having his patients, whom he had trained in LD induction, give markers of lucidity in their sleep that would be valid externally. These included directed eye movements, such as, moving one’s eyes three times to the right, or fist clenching. Subjects were recorded from 2-20 nights each. In 35 nights of study LD were reported after REM sleep (32 times), after N-REM stage 1 (2 times), and after a transition from N-REM stage 2 to REM once. The variable occurrences of LD demonstrated that REM stage was the most likely stage in which to LD, but not the *only one*. Additionally, in one situation the induction of LD occurred during a stage of wakefulness. One can transition into lucidity from either the awake or asleep state. The transition into LD from a waking state is referred to as WILD (wake induced LD). WILD involves an unbroken awareness while falling asleep. For example, LaBerge describes his own WILD experience as such: “I was lying awake in bed late in the morning listening to the sound of running water in the adjoining bathroom. Presently an image of the ocean appeared, dim at first like my usual waking imagery. But its vividness rapidly increased while, at the same time, the sound of running water diminished”. There is even a possibility of feeling sleep paralysis. WILD is significantly rarer, however, than DILD (dream induced lucid dreaming).²

Lucid Dreaming brings many benefits through the possibility of dream control. While not everyone may be *the one* in their Matrix; skill in lucid dream control can be developed regardless of base starting level. The most obvious and hardly mentionable benefit of dream control is that one could experience their fantasies. However, LaBerge argues that LD is also a powerful healing technique. It can build dreamer’s confidence and help them to overcome nightmares. The Lucidity Institute reports: “In a study of the effect of lucid dreams on mood, college students reported that realizing they were dreaming in a nightmare helped them feel better about 60 percent of the time. Lucidity was seven times more likely to make nightmares better than worse”.⁴ LD could be a new, powerful and drug free psychological therapy. An



ability to manipulate a fantastical space as clear as reality may offer powerful problem solving techniques as well. Any chemist familiar with the Bohr model of the atom would testify to the creative problem solving potential of the dream world. After all, the Nobel Prize winning model was given to Niels Bohr in a dream.⁵

Dream control begins with dream induction. There are methods peculiar to DILD and to WILD, some developed by LaBerge in official studies, and many others scattered in lucid dreaming internet forums. In order to induce DILD in patients LaBerge conditioned them to question their dream world whenever a stimulus was present. LaBerge tried a variety of stimuli, provided during REM, including tape recordings of “this is a dream”, musical tones, conditioned tactile stimuli, olfactory stimuli and light. Light appeared the most successful. LaBerge used a device he calls the NovaDreamer, which he offers for sale on the Lucidity Institute’s Website. The NovaDreamer is the necessary goggles for any adventuring psychonaut. They emit a red light of variable durations while the patient is in REM, inducing lucid dreams as vivid as those which occur spontaneously. This technique

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induced lucidity in some individuals for the first time. One patient, an experienced psychonaut, reported having five in one night and an increased feeling of awareness the next day.⁶

For those not lucky enough to be LaBerge's lab rats, he offers techniques anyone can use that are just as effective overtime. Improving dream recall is the essential first step. Dreams must be recorded immediately upon waking, no matter how fragmentary. Over time, they are increasingly remembered in fuller detail. Depending on dedication and luck, multiple dreams can even be remembered. The Lucidity Institute recommends that at least one dream be remembered a night before LD induction techniques are attempted. Techniques provided by the LaBerge Lucidity Institute for inducing DILD are as follows:

1) Be a skeptic. Perform reality checks by asking yourself "am I dreaming?" or "is this possible?" even about ordinary objects. Try to do this randomly and not according to watch alarms or specific times. Getting this to be a spontaneous reflex increases the chances it will occur during REM. Try specific reality checks as well, such as looking at the time and then looking again. Studies show that text changes 75% of the time it is re-read once and changes 95% if it is re-read twice. If the characters are abnormal then you are most probably dreaming.

2) Intensely Imagine You are in a Dream. Think about what would happen if it were a dream.

3) Imagine Something You Would Like to do in a Lucid Dream. Rather than think "I wish I could fly" think about how you would if it were a dream right now. Visualize yourself performing this activity.

4) Study Your Dream Journal. Looks for common signs of dreaming and themes. If these occur then you can suspect that you are dreaming.

5) Interruptions of Wakefulness and Return to Sleep. LaBerge noted that many patients who had gone lucid had woken up in the night and returned to sleep.

6) Nap Technique. LaBerge noted that many lucid dreams occurred during afternoon naps or returns to sleep in the morning. There is a 15 to 20 time increase in likelihood of LD when an individual wakes up an hour earlier than normal and then returns to sleep

after 30 to 60 minutes. During that time period an individual thinks about LD.

7) MILD- (Mnemonic Induced Lucid Dreaming). This is a technique similar to the others. It also resembles WILD in that it is performed while an individual falls asleep. It consists of repeating the mantra "I'm dreaming" and focusing intently only on this idea until asleep. (Lucidity Institute).

WILD is a rarer and less scientifically explored phenomenon than DILD. Technique number 5 is often recommended for achieving this state. Having what is known as an "anchor" helps one maintain awareness while falling asleep. An anchor can be anything from a physical disturbance to a thought, for example, the water flowing when Stephen LaBerge fell asleep. Lying in an uncomfortable position or having the sun in your face may also work. The principle is that dorsolateral prefrontal cortex activation is maintained by an unusual stimulus, thus preventing the total surrender of awareness.

These techniques are generalizations concluded from early LD laboratory experiments, case studies, and personal testimonies. However, the variety of LD induction, and the spectrum of dream control vary considerably from individual to individual. In fact, the lucid state itself is not the same for every consciousness. In the words of Stephen LaBerge, "The range of subjective experiences reported to occur during dreaming appears wider and more variable than those typical of waking." Thus, there is much to be discovered and, perhaps, much that will remain a mystery. One should experiment with her own lucid state to discover its particular idiosyncrasies.²

LD offers adventure, the possibility of psychological therapy and has creative problem solving potential. Its probable benefits to science, in addition to its obvious personal benefits, should not be overlooked due to labeling LD as mysticism not fit for scientific study, as though that which were subject to study were limited to the dry and mechanical. Amidst the piles of essays and books written on the nature of knowledge concerning objects, self, processes, etc. the dream world, however, remains a mostly unexplored planet. A few flags have been planted, but a greater exploration may yield unseen discoveries of not only how we imagine, but how we *know*. Implications of such would be greater knowledge of how we

perceive, reason, think, feel, re-construct and in conclusion *understand*. Since the perception of the external must occur through a subject, the nature of reality, or rather, *our* nature of reality may be known better, by expanding our knowledge of mind through dream study.

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