The Potential of Lucid Dreaming for Bodily Healing

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Dreams are, after all, a form of mental image. To be sure, they are ones that occur during sleep, but images none-the-less. In fact, they are extraordinary mental images in that we completely believe they are real until we wake up and discover that we were only dreaming. Even when we add consciousness to sleep our research has shown that lucid dreams differ very little in their felt sense of reality from ordinary dreams. If anything, the felt sense of real in lucid dreams is enhanced. Given the explosion of research looking at the relationship of mental imagery to healing, the obvious place to start the exploration of the potential for lucid dreams to heal our bodies is with the mental image.

Do Mental Images Affect Our Bodies?

As far back as the 1930s, Jacobson found that if you "imagined" or visualized yourself doing a particular action, say lifting an object, the muscles in the arm you imagined you were using would show increased activity. Similarly, other studies have found that subjects salivate more when asked to produce images of their favorite food than when they thought of food they disliked. Imagining an object moving across the sky would stimulate more oculomotor movements than visualizing a stationary object; and, generating images of abstract words produce more pupil dilation in subjects than images of concrete words, which are easier to visualize. In study after study, researchers have found a connection between what people fantasize or imagine and the biological activity involved in actually performing those activities.

Two scientifically rigorous physiological models for mental imagery come from Finke and Freeman. Finke concludes that at higher cortical levels one can find evidence that mental images influence perception. He points out that in understanding this process we should make a distinction between form and function. The image is created within the limitations of an individuals understanding of its form, but once it is created, it will function like the object itself.

Using research into another sensory system, olfaction, Freeman states that, "EEG contour plots reveal our first glimpse of the physical aspect of a mental image ...I believe that neural and mental images are two sides of the same coin." Further, he concludes by drawing on "the metaphysical foundations and mathematical formalisms of certain aspects of electrical engineering and theoretical chemistry ... [that] ... when microscopic particles such as atoms, cells, insects, or neurons interact in large numbers, a macroscopic entity forms." In this case the mental image.

The Mind-Disease Link

Before we can consider whether images heal we need to examine if the brain and its functions are connected to the immune system. A new discipline known as psychoneuroimmunology (PNI) has evolved to investigate the role the mind plays in the pattern of disease. We have seen that the image effects the physiology of the mind. Researchers determined that the immune system is not independent from the brain as previously thought. Hall and Goldstein concluded in a 1987 article in The Sciences, "there must exist a functional pathway that links the organ most closely associated with emotions and ideas - the brain - to the organs and tissues that collectively make up the immune system. In fact, two such pathways - one biochemical, the other anatomical - have been discovered. They point out that the immune system is heavily influenced by other bodily processes, especially the central nervous system, by way of the endocrine network and the autonomic nervous system.

From Image to Immunity

We have gone from the image to the brain and from the brain to the immune system, the next step is to go from the image to the immune system. Early research has shown a significant connection between states of mind and the appearance of a wide range of diseases, from arthritis to cancer. Although it is well established it is not well accepted or even well known. Achterberg points out that as of 1984 it had "not been included in any major textbook on immunology, and is rarely considered in the clinical management of immunologic disorders." Apparently the long standing professional resistance to the mind-body link is alive and well, especially in the medical establishment.

Although it is scientifically difficult to show a direct link between any sort of imagery treatment and a change in the immune system, in a recent review of the imagery and medicine literature, Achterberg does draw a line from the image to the immune system. Briefly, to support a neurological relationship between the image and the body's maintenance of health she points to the central role of emotions in both imagery and disease. Achterberg argues that they share close cerebral loci. She further states that, "verbal messages must undergo translation by the imagery system before they can be understood by the involuntary or autonomic nervous system and related components." In the normal healthy individual such translation from imagery to verbal understanding is not necessary, but when we are ill, access to and control of imagination becomes important. Achterberg concludes that "consciously accessing and manipulating images may also prove to be a way to enter into psychophysiological systems and establish harmony in functions and structures which have gone awry."

The role of mental imagery in healing has a rich historical as well as anthropological heritage. Noll points out in a review of the role of visions in shamanism that "mental imagery ... plays an important role in shamanic healing". Despite the

reluctance of the medical community to accept such procedures, with some noteworthy exceptions, the use of mental imagery techniques as a psychological component in a program of healing is enjoying much interest and support. This interest was set off by the well known and highly controversial work of Simonton and Simonton. In what has come to be know as simply "the Simonton method", those suffering with cancer and other diseases are being treated with a variety of mental imagery techniques designed to help the patient take some control of his/her illness.

As is often the case with the introduction of new noninvasive clinical methods that "seem" to work they enjoy greater clinical use than experimental validation warrants in their formative years. However, some research has been undertaken. Hall reviewed the experimental studies on imagery and blood measures of immune response. He concluded "it can safely be said ... that imagery is far from being a 'doubtful idea whose time has come.' On the contrary, it promises to be a viable adjunct to traditional cancer treatment as well as a means of determining the prognosis of the disease".

Hypnosis, Meditation, and Healing

A particularly impressive correlation between imagery and physiological responses relevant to healing the body has been found within the relatively small percentage of the population capable of entering a deep hypnotic state. In hypnosis, individuals are carefully guided into a relaxed state and instructed to feel, imagine, and experience ideas or events in a way that alters waking behavior. Warts have receded, smoking stopped, allergies lessened, and blood pressure lowered through hypnotic suggestion. The actual mechanism at work in successful hypnosis is similar to that of other imagery. "By becoming deeply absorbed in imaging a physiological change," explains Barber, "excellent hypnotic subjects can reinstate the same feelings that are present when the actual physiological change occurs, and the reinstated feelings can stimulate the cells to produce the physiological change."

Both hypnosis and the more successful non-hypnotic therapeutic imagery techniques combine imagery with relaxation. In the early 1970s, at the urging of the followers of the Maharishi Mahesh Yogi, Herbert Benson began studying the ability of long-term meditators to lower their blood pressure and pulse. He wanted to see if their ability could be learned by people suffering from hypertension. What he identified was the "relaxation response", his phrase for the meditative state in which the mind is cleared of distractions and stress is relieved.

Since his work was published research based claims of health improvement associated with the regular practice of meditation include reversal of the ageing process (specifically, younger biological age compared to population and control norms and increased longevity); improved health of the cardiovascular system (specifically. decreased blood pressure in hypertensive subjects, decreased serum cholesterol levels

and improvements in patients with angina pectoris); improved health of the respiratory system (specifically, fewer upper respiratory tract infections and improvements in patients with chronic bronchitis); improved health of the nervous system (specifically, increased brain wave coherence and increased blood flow to the brain) and better health for mother and child during pregnancy and childbirth (specifically, shorter duration of labor; lower frequency of vacuum or forceps delivery and other operative interventions) Two recent studies have shown that waking imagery combined with relaxation seems to produce the strongest physiological changes. The combination of meditation/relaxation with waking imagery techniques may hold the most hope for the use of the mind to heal the body.

Unfortunately, many of us do not have the discipline to regularly meditate and the potential to reach the deep meditative states most associated with these health improvements. Further, only a small percentage of the population can achieve a deer hypnotic state or daydream with such absorption that it seems real. But everyone sleeps and everyone experiences the vivid imagery of dreams every night whether they want to or not! What if it were possible to harness the independent scenery of the dreamworld to heal?

The Dream Connection

In our era researchers have begun to document the effect the body has on the content of dreams. It has repeatedly been demonstrated that dreams are affected to a limited degree by internally and externally originating somatic stimuli.

A rich source of research into this question has been with women. Robert Van de Castle found that when a woman is ovulating, her dreams are relatively more friendly toward men than toward women, but when she begins to menstruate, her dreams show greater friendliness toward women than toward men. Similarly, the dreams of a pregnant woman may presage her eventual labor. Although some references to the baby will often be found in a women's second trimester, it is in the third trimester that they abound. Then dreams of labor are common. Researchers have found that the woman who has anxiety and threat dream images about the baby and her forthcoming labor will usually have a shorter labor than the woman whose dreams show happier, less fearful images. It's as if the threatening dreams are acknowledging the painful event that is to come while the more goody-two-shoe dreams deny that reality just as perhaps the woman who is dreaming them is denying the pain that will be sure to accompany birth.

Similar to waking imagery, "in dream sleep whatever is dreamed is real in terms of physiological responses." comments Haskell in an excellent review of the research literature relating dreaming to physical illness.

Severe biological illness often finds its way into dreams. Although the research is largely observational and correlational rather than experimental, a body of work relating disease to dreams exists. Such dreams have been shown to be diagnostic and prognostic and, Robert Haskell suggests, "perhaps causal". Regarding diagnosis, researchers have found that in about 50% of pre-surgical dreams loss of mobility, acts of cutting and destruction, dependency concerns, loss of support, being hurt and injured and loss of power were evidenced compared to 10-15% of post-operative dreams. Haskel points out that dreams which are predictive of disease need not be viewed as quasi-supernatural. "Psychologically, they can be explained in terms of subliminal perception or the dreamer's cognitive processes perceiving cues too subtle to be processed consciously." For instance, a patient who died of liver cancer, dreamt six years before his death and five years before the cancer's onset that he had cancer and that he would live only six to eight years more.

In more recent research into the dream-disease connection Robert Smith reported a correlation between dreams of death and separation and the health of the dreamer in hospitalized patients. Among the male patients those whose dreams contained traumatic images of death had significantly worse organic disease than those whose dreams were free of such imagery. Similarly, among the female patients studied, those with dreams with obvious separation imagery had worse prognoses than did the other female patients.

Cases in which individuals have turned to their dreams for information about their health certainly seem common based on the antidotal stories we all hear. More rare are reports of dreams in which the dreamer has used dreams to affect a healing of him or herself.

The Lucid Dream Connection

What if we could consciously enter our dreams and then try to heal ourselves through dream control? Would this occur simply as a by-product of the consciousness, as the meditation connection to dream lucidity would imply, and/or could healing happen through dream control? Would we wake up with healed bodies? Some speculative questionnaire data exists towards answering these questions.

In 1987, Stephen LaBerge and I prepared a project for OMNI Magazine in which readers were asked to participate in a two-week experiment in lucid dreaming. Among other things, they were asked to write in detail a description of any "healing" lucid dream. After examining the responses we found several cases of apparent dream healing. In the OMNI questionnaire we asked "Have you ever tried to mentally or physically heal yourself in a lucid dream, curing an illness or overcoming a phobia or fear?" Of the 587 people who filled out the OMNI questionnaire, 15% sent along a dream labeled "Lucid Dream Healing" in response to this question. Of these 89 only 9% or 8 dreams were clear

cases of healing the body while lucid. The other types of responses were: Vague/unclear-23 (26%); not a dream - 8 (9%); nightmares - 22 (23%); misc - 5 (6%); sports - 2 (2%); phobias - 8 (9%); get sick in the dream and heal self/other in the dream- 8 (9%); and non-lucid healing -5 (6%).

These eight lucid dreaming healing cases were from four men and four women with an average age of 34.4 years, ranging from 21 to 57. Six of the eight were married and all but one had a college education. Their average family income was about $30,000 with three skilled laborers and two managers among the occupations represented. All claimed to be in good health with no reports of the sleep disease called narcolepsy. Related to individual differences associated with the lucid dreaming ability, ear problems and motion sickness were infrequently reported in this sample.

In terms of their dream history 5 of the 8 were frequently lucid dreamers, that is they had lucid dreams once or more per week. Their normal dream recall history over the past year was relatively frequent. Further they showed a mixed pattern of nightmares, false awakenings, and pre-lucid dreams over the past year. Consistent with research on frequently lucid dreamers this set claimed to control both their lucid and non-lucid dreams. Finally, flying while lucid was quite common in this group.

One respondent, Krisanne Gray, from Spokane, Washington, related how she has used lucid dreaming to quit smoking, stop biting her nails, lose weight, and rid herself of hives and menstrual cramps. Although she has never seen a doctor for her hives, she is often bothered by them and has controlled them by suggesting to herself as she falls asleep that she needs to calm down. Then when she turns lucid, she creates a cool meadow environment in which she continues to tell herself to calm down. After this dream experience her hives have repeatedly disappeared.

Gray handles menstrual cramps in a similar fashion. She reports one particular instance in which on the day she was to play in a tennis tournament her period started and she was plagued with severe cramps. Fearing she would not be able to compete. Gray took a fifteen minute nap in which she dreamt she was on the bench waiting for the tournament to begin and the cramps were bothering her. At that point she turned lucid and located the locus of pain in her body. She told herself to relax those muscles. When she awoke from her dream, her cramps were gone and she went on to compete in the tournament.

In another ease a young married woman from Bedford, Texas relayed a dream that she believes healed a pulled muscle in her chest. She had the dream a week after pulling the muscle, an injury that bothered her almost every time she moved. “I was reading a book one night before going to sleep about an Indian medicine man who has performed a healing ritual,” she writes. “I turned out the light and began fantasizing about going to Nevada and meeting the medicine man. This moved into a dream where I saw myself

walking into a small desert town and down a road to the medicine man's house. I don't remember much else except the medicine man kept repeating over and over, 'Believe in me and you will be healed.' I remember thinking that I was dreaming and that it was silly to believe that a medicine man could come to me in a dream but I decided to go with the flow and relaxed as he kept repeating the sentence. I woke about an hour-and-a-half after I had turned the lights out and sat up in bed. I moved my arms and body around. The pain was gone."

Ailments represented included a recurring headache, menstrual cramps and hives, sprained ankle, pulled muscle, torn ligament and skin cancer. It is important to keep in mind that none of the cures reported by the OMNI readers can be called miraculous, but they may demonstrate that during the enhanced state of mental imagery called dreams one can intuit and perhaps affect the health of ones body. At the least, certain commonalties can be found among these examples that hint at a pattern of apparent dream healing. These are on this overhead:

1. There is a history of dreaming lucidly as well as lucid and non-lucid dream control.
2. There is a definite pre-sleep intent to lessen the physical discomfort.
3. This intent is recalled upon awakening in the dream.
4. Action is taken either by the dreamer or by a dream character to rid the "dream body" (and by implication at least the physical body) of the discomfort.
5. The dreamed actions are, with one exception, non-harm inducing although not necessarily passive (i.e., relaxation, laying on of hands, belief in a healer dream character, and prescribed exercise).[1]
6. The positive results of the dreamed action are apparent in the dream.
7. Upon awakening the results of the dreamed action are often apparent shortly after the dream experience.

But there is another line of inquiry we can take to explore the potential of lucidity for healing by examining the characteristics of individuals who frequently dream lucidly.

Lucid Dreamers Not As Vulnerable to Disease

Based on the stress and illness literature it appears that not only are frequently lucid individuals the best candidates to use their dreams to heal themselves they also possess personality characteristics which predispose them to not be as vulnerable to stress related disease as non-lucid dreamers. Further, if lucid dreamers do get such diseases they are best equipped psychologically to deal with illness. These hypotheses are based on several indirect lines of evidence from work with three psychological concepts: psychosocial adjustment,alexithymia and private self consciousness.

Psychosocial adjustment to illness has been receiving intensified attention in medicine in recent years. Such adjustment to illness is typically conceptualized as

multidimensional. For instance, Derogatis showed that patients with a confirmed diagnosis of lung cancer showed poorer psychosocial adjustment than the comparison sample of individuals who thought they might have lung cancer but later found out they did not. Psychosocial adjustment also plays a role in dream life. Cartwright, among others, has conceptualized the dream as an emotionalproblem-solving, adaptive process. She found "differences between the dreams of those who make a good emotional adaptation to their changed lives and those who do not". Relatedly, my students and I found that over a 16-week period lucid dreamers were more likely to experience lucid dreams on nights following stressful days and that these lucid nights were likely to be followed by days with relief from stress.

Alexithymia is found in psychosomatic patients who have affective deficit, inhibition of fantasy, a concrete operatory style of thought and behavior and stereotypic manner of relating to others. Central to the construct of alexithymia is the lack of fantasy and imaginalcapacities. Controlling for dream recall, individuals who frequently experience dream lucidity have been found to report more spontaneous waking fantasies than those who have never had a lucid dream. Further, poor hypnotic subjects had significantly higher alexithymia scores than good subjects. Those with an ease in attaining lucidity tend to be better hypnotic subjects. Finally, one study found high alexithymicscores to be related to low REM production. One of the most robust findings in the lucidity literature is its strong association with phasicREM and high dream recall.

Self-consciousness is a state which has been conceptualized as "the existence of self-directed attention, as a result of either transient situational variables, chronic dispositions, or both". Two studies have found that, "the incidence of stressful life events predicted subsequent illness among persons low in private self-consciousness but not in persons high in private self-consciousness". Gackenbach and her colleagues found that high private self-consciousness was a strong predictor of lucid dreaming frequency in men.

In sum, based on the associations, direct and indirect, of the lucid dreaming ability positively to psychosocial adjustment and private self-consciousness and negatively to alexithymia, lucid dreamers should not be as inclined to stress based illness as non-lucid dreamers.

I found support for this thesis in my dissertation where I directly looked at health variables as a function of lucid frequency. Although I found no dreamer type differences on several health variables such as diet plan, exercise, alcohol, smoking, drug use, coffee or tea drinking and vitamin use, when these data were reanalyzed considering sex of subject and controlling for dream recall ability I found that frequently lucid women tended to be healthy whereas frequently lucid men were not. Further, across sex, my husband and I found that non-lucidindividuals having been screened for vestibular related problems still evidenced borderline vestibular pathology.

In closing, dream lucidity not only offers the potential to help us heal our bodies while sick but also by sustained access to the state we may be less likely to get sick.

[1] A common strategy recommended in the waking imagery literature is one of aggressive attack of the illness although more recently suggestions have been made that this strategy may not be universally functional.