

Proceedings of the European Symposium on Lucid Dream Research Dream Lucidity Induction and Control

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My most important qualification for presenting this paper is an extensive direct experience of lucid dreams. I have had hundreds of lucid dreams in which I have done an experiment or made some observation. In sleep-laboratory work I have had 50 signal-verified lucid dreams. A primary concern of mine is with the philosophy and phenomenology of dreaming and altered states of consciousness and with what they can tell us about normal consciousness.

Lucid Dreaming Personal History: Development Of Elementary Techniques

As far as I remember, I achieved my first lucid dream by a deliberately developed technique, at about age five. I had discovered I could wake myself from frightening dreams by shouting 'Mother!' Knowing I had this escape route I became more daring, I deliberately allowed a dream of falling to continue, and nothing bad happened. I became even more confident and, having a lucid dream every few months, I gradually learned to recognize that I was dreaming even when the dream was not frightening and I did not have to remember it was only a dream. I also learned that I could wake if I wanted to. I became fascinated by the idea of being free in my own world. As I grew older I began to call these dreams "conscious" dreams.

At about age 12, I planned my first "conscious-dream" experiment. It was to investigate how much detail it is possible to see in a dream. In the first lucid dream I had after planning the experiment I remembered to do it. I was standing in a doorway, the frame of which was made of wood. I decided to look for the grain in the wood. I discovered I could see the fine details of the grain and concluded that visual acuity was good in dreams. I have since realized that detail in dreams is not so much perceived as created. My conclusion should have been that it is possible for fine detail to be created in dreams.

Every few weeks or months I would have one of these exciting adventures. Recently I have performed more sophisticated experiments. One series of experiments explored the properties of television sets in my dreams. I started with simple tasks such as turning a TV set on and off, increasing the sound, changing channels, or adding color. Then I decided it would be interesting if, having selected a particular scene, I could move into it. I managed to do this by expanding the screen until the edges were no longer visible and then walking into the scene.

Another use I found for television sets in dreams was that of obtaining objects which I required for experiments. I would adjust the channel selection, or more specifically the "object display" control, until the desired object was displayed. I would then pretend that the object was three dimensional and that the glass front could be raised to allow the object to be retrieved. On one occasion, while I was trying to obtain an

object from a screen, I noticed that on an adjacent screen chocolates were being displayed. On this occasion I allowed my usual single-minded application to the experimental task to slip. Presuming that dream chocolates do not make you fat or spotty I took the opportunity to investigate taste and smell in dreams. Although I have tasted better chocolates the results were quite gratifying.

In another dream, I was looking for a normal TV set to start an experiment when I noticed something like a TV set; an electronic paint system with a horizontal screen and a finger touch palette. I had never used such a device in waking life though I knew it was technically feasible. I played with it for a few seconds, touching the palette colors with my finger and then drawing a trail of color on the screen. It might have been profitable to explore the possibilities of this simulated electronic painting system more thoroughly but on that occasion I did the planned experiment.

Having operated simple controls for an electronic visual display in my dreams, I thought that the concept might be elaborated. Perhaps I could create a virtual-computer, so that I could use the part of my brain that generates visual imagery as if it were a computer controlled VDU. The "interface" would not be a physical keyboard, but a dream keyboard operated by my dream fingers. Then perhaps I could expand the edges of the screen so that they were no longer visible. Eventually, by imagining the scene to be receptive to thought commands, I could dispose of the need for the keyboard. The question then arose, would the resulting dream be convincing?

Suspension Of Disbelief

When one is awake and looking at the physical world, there is no problem in believing it to be real. The problem comes when an apparently physically real world appears in a dream and one wishes to realize that it is not physically real or, having deliberately altered it knowing it is only a dream, to re-establish the convincing reality of it.

In controlling lucid dreams one is trying to do two things at once which seem at odds with each other; to induce imagery and to pretend that one is not responsible for the imagery. The images so created in lucid dreams seem to come with reality built-in.

In lucid dreams, I try to balance the degree of awareness (needed for informed control) that it is "only a dream" with the autonomy and spontaneous unpredictable creativity of dreams. These latter characteristics contribute to the feeling that the reality is authentic. This balancing can be difficult to do when I carry out actions within the dream scene with the full knowledge that I am dreaming and have chosen the whole scene deliberately. I have to suspend disbelief as when watching a play. It is easy to experience a well-produced play or a film as real even though, at any time, one may step back to remind oneself that it is "only a play"

What Causes Dreams?

My impression is that nearly all dreams begin with involuntary imagery after which, if the dream is to continue, it requires attention, and better still, active participation. Dream imagery, unlike a film, cannot continue to run independently of the

brain. In non-lucid dreams the attention and the participation are *involuntary* as I am taken in by the imagery and I do what it seems to demand. In lucid dreaming I can choose to attend to the dream or to some other mental activity such as imagining, calculating, or remembering a dream experiment. In my experience, if attention is focussed on these other activities for more than a few seconds the dream may fade. I may be able to recover the dream state by recalling or imagining the last dream scene or starting a new one, but if the process to which I have been attending is more similar to waking thought than to dreaming I may even wake up. If I lose the dream but do not wake, even though I am still lucid, I tend to become disoriented, perhaps because there is no stable focus or content to be lucid about. In order to carry out an experiment requiring waking-type thought in a lucid dream without losing the dream imagery I sometimes switch attention every two or three seconds between attending to the dream imagery and then to ensuring its maintenance. This seems to allow refreshment of the dream imagery during prolonged non-dream tasks such as communicating with the outside world.

Intra-cerebral Organization

When I am dreaming lucidly, I sometimes believe that I am controlling one part of my brain with another part. The part that I identify as my “self” seems to control to some extent the part which generates dream imagery. In my attempts while awake to understand what is happening, I have compared this process to using a computer with a display screen. In my television experiments I was able to watch a dream - so it seemed - on my dreamed television set. I could change the content using a knob to which I confidently attributed the magical property of “channel-changing”. At first I did not try to influence what the channel-changing would produce. It was sufficient simply to produce a change. Later I developed the ability to influence the specific content of the channel I changed to. Using more elaborate controls, I can control the display on the mind “VDU” Whether this amounts to programming is debatable. A more appropriate phrase from computer terminology might be using an animation software package.

Visual Imagery Control

The dream-imagery generating system seems to be biologically programmed to run at certain times during sleep whether we tell it to or not. If we do not give it specific instructions it will do things on its own which we, as hapless non-lucid consumers of this product, may or may not like. Lucid dream control is about taking control of this process so that it does what we want and not what the system wants.

In some of my lucid dream experiments I have been concerned with what in computer terms would be called the “high-level” language of dream control. In a dream one can track, pan, zoom in on, wipe, scroll, jump, cut, dissolve, rotate, and window dream-imagery. A dreamer can pretend to be a camera which can move within the scene forwards, sideways or even backwards.

Some years ago I was curious to see how a dream scene would develop if I moved backwards into it. Normally in dreams as in waking life I move forward into a scene. When I do this I can see things coming. As in waking life, distant elements of the

scene which at first appear small gradually become larger as I move towards them. If I move backwards into a scene, I cannot see anything behind me, and so I see no gradual increase in size as things get nearer. Objects appear full size from behind. As I continue to move backwards the things that were formerly unseen behind me are now visible in front and they get smaller as they recede from me. When I move backwards I have no time to anticipate the effects of encountered objects. When I can see something coming my expectations have time to develop and influence the course of events.

For instance, if I move forwards towards what appears to be a solid wall in a dream, my expectations about the impenetrability of walls sometimes seems to limit further forward movement when I reach the wall. However, if I move backwards towards a wall which I know is somewhere around, but I cannot actually see coming, my expectation about its impenetrability is less effective. The result is that I can pass through the wall easily. Also, despite walls normally being opaque, I find that when I penetrate a wall going backwards the scene does not go dark though it often does so when I move forwards towards it and into it.

As I have grown increasingly sophisticated in managing dream imagery, I have developed the ability to choose whether to regard the imagery as moving in relation to me or myself as moving in relation to it. In connection with this I have shown in the sleep laboratory that not only can I move my eyes at will, as when signalling, but can keep them still when otherwise they might be moving, as between signals. That I am able to keep them still when required helps to make the signals clear. By this means it may be possible to reduce markedly the very characteristic which gives REM sleep its name, thereby making "phasic" REM less distinguishable from "tonic" REM.

Some eye movements associated with scanning a dream scene can be avoided by very simple techniques. In order to look at a different part of a dream scene, I may be able to move it into view instead of moving the direction of my gaze. For instance, if I wish to look at my hand in a dream and my hand is not already in view, I can fix my gaze on the part of the dream scene at which I am already looking and bring my dream hand into line with it. This is an easy alternative.

If the whole scene is a large picture which I am holding in my hand, to look at a different part of the scene I can move the picture instead of moving my eyes, though to forestall the possibility of my eyes making a reflex tracking movement I have to move the picture very quickly. Another way to not move my eyes while dreaming is to stare at a stationary object. If I moved my eyes I would see a different part of the dream scene.

I can scan a dream scene while keeping my eyes still by using a dream mirror. Though a dreamed mirror appears in the dream to be a real object it is only a virtual or dreamed device. If I look straight into the mirror, not changing the direction of my gaze, I can look at different parts of the dream scene by moving only the mirror.

By using these techniques I alter my expectations. I still expect to see different parts of the dream scene, but I do not expect to have to move my eyes to do so. It would be interesting to discover just how much the REMs of phasic REM can be reduced by these techniques.

Delay In Dream Imagery Generation

In some of my experiments I have investigated the delay which occurs between the moment of willing or expecting a change to occur in dream imagery and the moment of its actually beginning to change. The so-called *light-switch-phenomenon* is perhaps the most familiar illustration of this delay. I have observed many times, as others have, that when it is dark in dreams and I try to switch on a light, the light will not come on, or at least not come on immediately or brightly. The same applies to attempts I have made to lengthen my arm, sink into the ground or to make things appear out of nothing. In waking life making your arm longer is impossible. Therefore, when I tried it in a lucid dream I had no experience of how it should be done. I tried to stretch it further than I knew it would stretch when awake. After a delay of one or two seconds, my arm started to grow longer and my right hand soon disappeared into the distance. Then I realized I had not been as successful as I had first thought; I could feel another arm at my side. In order to achieve correspondence of visual with tactile and kinesthetic imagery I repeated the arm lengthening procedure while sliding my hand along a rough wall and watching it closely. In this way I generated tactile sensations in my hand while it moved away from me, and thereby I successfully integrated all relevant imagery modes. I am now able to retrieve distant objects using this arm lengthening technique.

The delays which occur when I try a rather unusual manipulation of the imagery, such as arm lengthening, remind me of the delays one observes on a VDU while operating a computer, particularly when the task is complex or not one for which the system is primarily designed. It seems reasonable to presume that the brain is primarily organized to respond to external stimulation. Creating images of new experiences that do not occur in waking life might be expected to take longer than images which simulate external input.

Transfer Of Techniques from Lucid To “Non-lucid” Dreams

I have noticed a tendency for techniques first developed in my lucid dreams to become incorporated into my repertoire of dream experiences generally. For instance I first used the arm-lengthening technique in a lucid dream. Later, in what appeared to be a non-lucid dream, I used the arm-lengthening technique as if I knew it would work, even though the presumption in non-lucid dreams is that one is in the real world where miracles are impossible. Does this mean that though I was not “aware” that I was dreaming, I somehow nevertheless knew that contrary to waking experience I would be able to lengthen my arm?

It appears that my dreaming non-lucid self has the ability to exploit techniques that my lucid dreaming self has developed. If “I” as non-lucid dreamer have a wonderful time in non-lucid dreams by using techniques developed in lucid dreams, but “I”, as the lucid person who would clearly recognize the experience as a dream, am not there, from the point of view of the waking self, whose wonderful time was it?

Skilled Dreaming

I have come to realize through consideration of my own dream observations

that, like other skills such as driving a car or playing the piano which are initially practiced diligently with great effort and concentration, “dreaming” is a learnable skill.

Having learned by many hours of practice to operate reasonably well in a lucid dream I have found that techniques which once required deliberation have become second nature. This includes to some extent the need to remind myself that I am dreaming. Habitual familiarity with the implications of the fact that I am dreaming now enables me to act quickly and incisively whereas before I would dither and get involved in useless side issues. For instance I remember once many years ago trying to go to a different scene in a lucid dream by hitching a lift. Now I can change the scene by simply closing my eyes and imagining the next scene.

In a sense the lucidity, once it has started, has become, paradoxically, more automatic. In lucid dreams I now engage in “dangerous” activities such as flying, hitting walls and passing through them without stopping, knowing I am perfectly safe. I know very well what I am doing without having to think about it.

If one learns to dream so well, so fluently, that one becomes as a fish in water, in control but not having to think about it, is that still lucid dreaming? In fact, I have begun to think that many people who would not call themselves lucid dreamers have in fact learned to dream well. They may fly or perform other miraculous feats in their dreams, somehow recognizing that it is safe to do so, though they may never have articulated this recognition. They may in effect be leading secret lives, of which their waking selves are hardly aware if, like most people, they forget their dreams.