

## Lucid Dreaming and Creativity

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The most important qualification for my presenting this paper<sup>ii</sup> is my extensive direct experience of lucid dreaming. I have been dreaming lucidly since childhood. In my teens, until discovering Celia Green's book *Lucid Dreams* in 1968, I called these experiences "conscious dreams". Among these lucid dreams are hundreds in which I have done an experiment or made some observation. Fifty signal-verified lucid dreams and even two-way communication have occurred while asleep in sleep laboratories. Lucid dreaming makes it possible for me to alter the physiological characteristics of REM sleep, in particular the frequency and distribution of rapid eye movements.

Considerable creative power is clearly at work in dreams. Yet so little of it appears to be useful or relevant to the waking world. I see the world of dreams as an overgrown garden, full of weeds with the occasional beautiful flower. The potential is there but it needs a great deal of work and understanding for it to be productive.

To evaluate this potential by studying only naturally occurring non-lucid dreams seems like studying the culture of primitive men at a stage where their brains had reached the same development as ours but lacked the support of a highly developed civilization and could not benefit from standing on the shoulders of giants as we can.

I am concerned with the possibility of using lucidity in dreams to gain control of their creative potential. Dreams with recognized creative value that is of use after waking exist, but they are infrequent. They are also unpredictable and by no means guaranteed to reveal matters relevant to the waking life of the dreamer. It would help if we could regularize dream creativity and make it available on demand. My aim is not primarily to understand ordinary dreams but to change them.

There are some who regard the subjective experience of dreaming as a functionless side-effect of a memory-sorting process. According to a recent version of this theory, which was proposed by Crick and Mitchison, dreams are our experience of the deletion by the brain of undesirable memories. This theory purports to 'explain' why dreams are useless and it advocates that they are best forgotten. This view apparently takes no account of the possibility of controlling dreams and thereby making use of them. The theory is arguably related to ordinary dreams, but certainly not applicable to controlled lucid dreams.

I do not consider lucid dreaming a waste of time. For me it is very rewarding, an opinion which seems to be held by most lucid dreamers who have achieved control of

dream content.

Some people have found dreams to be a valuable source of inspiration which also suggests that the Crick/ Mitchison theory has limited validity. Artists, musicians, poets, playwrights, inventors, chemists, and even doctors, have had dreams that have led to the production of valued works. Most of the people concerned were deeply immersed in their subject so it is not surprising that they dreamt about it. These inspirational dreams have been largely non-lucid and the dreamers did not deliberately set out to have dreams that would help them in their work. The dreams occurred spontaneously. In fact, the dreamers concerned were often reluctant to admit that their dreams were a source of inspiration.

As it turns out, using dreams intentionally as a source of inspiration is difficult. One reason is that by the time one has been asleep for a few hours and has begun dreaming, any pre-sleep intention to exploit a dream state is likely to have been forgotten, distorted or pushed aside by the priorities of spontaneous dreaming.

A possible strategy is to initiate control of the dream while it is happening by becoming lucid. But this is not enough. In order to make use of the knowledge that one can now control the dream one has also to remember the purpose of controlling the dream. A purpose conceived according to the values of waking-life may, during a dream, not fit in well with the dream and its values, but again lucidity helps. It is easier to remember waking-life intentions when lucid. A reason for this is that only if you realise you are dreaming does it occur to you to refer to waking-life existence, and give priority to its values.

### **How Are Dreams Produced?**

In order to see how the creative potential of dreams may be realized it is useful to know how ordinary dreams are produced. My understanding of the sequence of events characteristic of most non-lucid dreams is as follows: The dream starts with an involuntary visual image of a scene or situation: Not knowing it is a dream, the dreamer reacts to it as if it is real and, accordingly, has certain expectations. These expectations influence the subsequent evolution of the dream imagery, which in turn leads to further expectations. The dreamer's movements, which he supposes to be real, indirectly support the dreamer's intentions and expectations but these movements are of course not actually carried out by the dreamer's physical body. There is therefore no genuine proprioceptive, or tactile feedback, though the system which issues the commands to muscles may assume there is a carry on to the next command as if the first had been carried out.

In waking-life, sensory input stabilizes our internal model of the world. During sleep our receptivity to this input is much reduced. The internal model, unchecked by continuous reference to the external world, runs wild. Errors accumulate and are

compounded. Each new "false" or unconfirmed prediction, not being limited by accurate feedback, is taken as a starting point for a new round of predictions. The default values or constancies are amended to unlikely settings and, as a consequence, their processing loses the accuracy achieved with well tested stable values. The result is a vicious circle.

If "out of the corner of my eye" I catch a glimpse of something in a dream, maybe a bush, and interpret it as a bear it may well turn into a bear. This does not happen in waking life. Bushes stay bushes. One might momentarily make the mistake but a second glance will soon put it right. In dreams there is no physical object to refer to. A spontaneously-occurring dream situation that is threatening may become more threatening because of the dreamer's attention to its frightening aspects. The dreamer's actions may further reinforce his beliefs, and expectations, and thereby the strength of the imagery. In the panic of struggling to escape from a confined space, the dreamer may suppose that the walls are solid, rather than take a cool look at the situation and recognize that the wall is not solid or can be rendered not solid.

A complicating factor can be the intrusion of further spontaneous imagery into an ongoing scene. A whole new scene may sweep away the previous scene with its accumulated errors and misunderstandings, or may merely introduce a new element into the drama. Either way it is difficult for the dreamer to understand what is happening, establish some control, and impose order on the situation. [Editor's Note: Worsley is presenting one perspective on dream production here. There are a wide variety of theories.]

### **Control In Non-lucid Dreams**

To control dreams effectively you have to understand the rules. Waking-life events are limited by gravity, the solidity of matter, and the speed of light. These need not apply in dreams unless the dreamer makes them apply.

Non-lucid dreams are often apparently disorganized not because there are no rules but because the non-lucid dreamer, thinking that he is awake, applies waking-life rules. There is considerable overlap between waking life rules and dream rules but this is not always obvious because intrusive elements often confuse the situation.

### **Analysis Into Dream Control Aspects**

One may distinguish those aspects of the dream process which may be controlled from the means of achieving that control.

As everything that happens or is experienced in a non-lucid dream is said to be "dreamt", then perhaps it is not too misleading to include the dreamer and say that he dreams himself as well as the scene and his body, which makes the dreamed version of

himself also in some sense an image. In a lucid dream I suggest that this scheme no longer applies. The "dreamer", part of whose brain is producing the images of the dream scene including his dream body and also perhaps a set of "memories", emotions and thoughts, is, in a lucid dream, more "himself". He can organize his thoughts better. His understanding of the values of the waking world is more coherent. The situation is not dominated by the "dream" or, perhaps more correctly by its imagery, but by the dreamer or, better, the lucid dreamer.

To say that all events experienced in lucid dreams are "dreamt" is misleading. The philosopher Norman Malcolm has alleged that a dream, by definition, cannot involve consciousness on the part of the dreamer. He never mentions the possibility of lucid dreaming and maybe was unaware of it. In an ordinary dream, you misunderstand what is happening and so do not experience it at the time as a dream in the sense of knowing it is a dream. If you do realise you are dreaming, the imagery is still there but the whole experience is no longer just a dream. Calling both experiences a dream obscures the basic differences between them. Knowing you are dreaming changes the category of the experience in a radical way.

It can be said that in a sense no one ever experiences a dream. In a non-lucid dream you experience images but do not know they are dream images. In a lucid dream, you do know your experiences are dream images, but to the extent you know they are, they are not "dreamed".

### **Control of the Body**

The dreamer [dream self, or dream-ego] can control the actions of his or her body in much the same way as when awake. You can walk, stop, turn, look left, look right but, in non-lucid dreams there is sometimes difficulty in, for instance, running. One may feel that one cannot run fast enough. This is perhaps because when running from danger one would always like to run faster. A feeling that one cannot run fast enough may lead to the modification of one's legs to explain this such that one's legs are experienced as being very heavy. In a lucid dream one could change the image positively -- my legs are getting lighter, I have no need to run, I can choose a different situation altogether.

### **Control of the Dream Scene**

The dream scene is harder to influence, at least for the naive unskilled dreamer, because he or she anticipates that the only ways of altering the scene are those characteristic of waking life, which are limited by, for instance, the permanence and solidity of matter. The dreamer thinks he or she has to deal it with accordingly by physical techniques.

It is possible to control the dream scene by creative use of waking-life

techniques. There are simple actions that can change the whole scene in a moment. *Turning round to face the other way will reveal a quite different scene in the same way as when awake.* Going through a doorway into another room or going outside can similarly be used to change the whole scene. By employing the mechanism of expectation these simple techniques can be made more powerful, but this is not easy to do except in lucid dreams.

### **Control of Lucid Dreams**

If the dreamer is lucid, before going through a door, he can prepare himself with the suggestion that he will find what he seeks on the other side rather than assuming that familiar rooms are arranged as in waking life. This will often result in the dream changing to suit the dreamer's conscious desires.

Non-lucid dreams use many principles that can be used in lucid dreams. For instance, it is likely, in a non-lucid dream, that if one believes one looks into a book about a certain subject, one will find relevant pictures in it. In lucid dreaming one can use this principle by deliberately selecting a book about a subject one wishes to study. The subject can be imaginary such as Martian architecture. One can further reinforce expectations by forming a clear image in one's imagination of the appearance of the book, the markings on the spine, the color of the binding and so on, so that when, as expected, the book is found, one may seize upon it with confidence.

It is possible, however, to do without these little tricks and simply change the whole scene by wishing it to be some other scene. The experienced lucid dreamer will know this and that he or she need not be constrained by the habit of passive perception.

To change the scene in this way is not without difficulty, however. It may be preferable to adopt a two-stage process where the image is called up, perhaps on a small part of the dream scene such as on a TV set, and then is expanded and made into the main scene with three dimensions, which the dreamer can then walk into.

### **Further Examples of Simple Dream Control Techniques**

The many colors of a dream scene may be changed to monochrome by the simple device of looking through a piece of colored glass. When investigating this kind of instantaneous change I have used colored plastic found in the street in dreams. Conversely, a black-and-white TV picture can be converted to color by confident use of the color-control knob. It is important to be confident and clear about what you are trying to do.

If one is accustomed to using a color-graphics package on a computer in waking life, one can use that means of changing the appearance of the screen to change colors in lucid

dreams. It is necessary merely to believe that the dream scene will respond like the computer. The commands can be issued mentally or with the aid of some dreamed device such as a dreamed keyboard.

More advanced techniques involve changing the apparent physical properties of dream objects. Fingers can be persuaded to burn or blossom, flesh to lose its solidity and melt. Some parts can be commanded to retain their solidity while simultaneously other parts normally solid, such as bone, become as penetrable as snow. In a lucid dream I have pushed both hands into my head so that my finger-tips met in the middle. I have passed one forearm through the other, cut off a hand and replaced it, and removed a finger and grown another one.

### **More Advanced Techniques: Body Image Changing**

Other techniques I have used involve changing the shape of the body image. In my dreams the body image generally seems to be stable unless I make an effort to change it. I have found that I can change its shape dramatically, lengthen my arm or tongue, add extra bits, and perform contortions physically impossible while awake.

I can choose whether to allow normal expectations to continue to apply -- I think of them as default values -- or can change them at will. One of the tricks which I have used, when not entirely lucid, to "entertain" other characters in the dream is to carve solid objects with my bare hands; wood or brick can become like butter; a moment later the same object can be solid. From one moment to the next I can stand on a chair or pass my hand through it as if it was made of smoke.

These tricks may seem rather pointless, but from these simple examples it can be inferred that if a sculptor wished to experiment with creating new shapes in dreams he could use his normal approach to moulding the material with his hands, having chosen the characteristics again, could regard the work as "set", or fixed.

It is possible to work with more exotic imaginary materials in the dreams such as luminous "plasma". Unfortunately the multi-dimensional richness of such explorations is not readily communicable to others. From the point of view of the lucid dreamer it is all great fun.

From my experience of dreams I believe that it is not easy to learn to do all this reliably. Dream objects have a habit of changing spontaneously, particularly if you stare at them. I think we can expect that learning skills in dreams takes time as it does in waking life, but once the simple techniques of creating a demand for an image has been mastered the creation of the images seems to proceed automatically *without effort*.

If lucid dreams are to be used for serious purposes, they must last long enough. I have often found myself at a crucial point, only to wake up. Lucid dreams which I have

entered by a pre-sleep ritual of relaxing, counting breaths and resolving not to move under any circumstances seem to last longer than lucid dreams arrived at without this preparation.

Another technique which I have recently discovered seems very promising. When I feel that I am about to wake, if I move my eyes rapidly at random for about 2 or 3 seconds and avoid thinking about anything, the dream seems to come back again and I can continue for another 3 minutes or so of stable dreaming. On the 2nd of October 1988 I managed to use this technique for what seemed like about 10 times. I felt as if I had prolonged the dream-state for maybe 20 minutes longer than it would otherwise have run. Not being in a sleep laboratory at the time I find it difficult to know just what was happening. Towards the end of the series the length and clarity of each dream seemed to be diminishing.

The methods I have described are by no means all of the ones I have discovered. There are many more that others have discovered. The use of dreams as a creative tool for both serious and recreational purposes, really begins when dreamers learn to realize that they are dreaming and that the possibilities of the dreaming state are great.

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