

## Out-Of-Body Experiences and Lucid Dreams

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OTHER WORLDS: OUT-OF-BODY EXPERIENCES AND LUCID DREAMS  
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"Out of body" experiences (OBEs) are personal experiences during which people feel as if they are perceiving the physical world from a location outside of their physical bodies. At least 5 and perhaps as many as 35 of every 100 people have had an OBE at least once in their lives (Blackmore, 1982). OBEs are highly arousing; they can be either deeply disturbing or profoundly moving. Understanding the nature of this widespread and potent experience would no doubt help us better understand the experience of being alive and human.

The simplest explanation is that OBEs are exactly what they seem: the human consciousness separating from the human body and traveling in a discorporate form in the physical world. Another idea is that they are hallucinations, but this requires an explanation of why so many people have the same delusion. Some of our experiments have led us to consider the OBE as a natural phenomenon arising out of normal brain processes. Thus, we believe that the OBE is a mental event that happens to healthy people. In support of this, psychologists Gabbard and Twemlow (1984) have concluded from surveys and psychological tests that the typical OBE experient is "a close approximation of the 'average healthy American.'" (p. 40)

Our conception, also proposed by the English psychologist Susan Blackmore, is that an OBE begins when a person loses contact with sensory input from the body while remaining conscious (Blackmore, 1988; LaBerge - Lucidity Letter; Levitan - Lucidity Letter). The person retains the feeling of having a body, but that feeling is no longer derived from data provided by the senses. The "out-of-body" person also perceives a world that resembles the world he or she generally inhabits while awake, but this perception does not come from the senses either. The vivid

body and world of the OBE is made possible by our brain's marvelous ability to create fully convincing images of the world, even in the absence of sensory information. This process is witnessed by each of us every night in our dreams. Indeed, all dreams could be called OBEs in that in them we experience events and places quite apart from the real location and activity of our bodies.

## WHAT ARE OBES LIKE?

So, we are saying that OBEs may be a kind of dream. But, even so, they are extraordinary experiences. The great majority of people who have had OBEs say they are more real than dreams. Common aspects of the experience include being in an "out-of-body" body much like the physical one, feeling a sense of energy, feeling vibrations, and hearing strange loud noises (Gabbard & Twemlow, 1984). Sometimes a sensation of bodily paralysis precedes the OBE (Salley, 1982; Irwin, 1988; Muldoon & Carrington, 1974; Fox, 1962).

To the sleep researcher, these strange phenomena are remarkably reminiscent of another curious experience, called sleep paralysis. Sleep paralysis occurs sometimes when a person is waking from or falling into REM sleep, the state in which most vivid dreams occur. During REM sleep, the muscles of the body, excluding the eye muscles and those responsible for circulation and respiration, are immobilized by orders from a nerve center in the lower brain. This prevents us from acting out our dreams. Occasionally, this paralysis turns on or remains active while the person's mind is fully awake and aware of the world.

Some of the experiences people have reported during sleep paralysis are: "I feel completely removed from myself," "feeling of being separated from my body," "eerie, rushing experiences," and hearing "hissing in the ears," and "roaring in the head." These events appear to be much like the OBE sensations of vibrations, strange noises, and drifting away from the physical body (Everett, 1983). Fear has also been described as a common component of sleep paralysis (see the "Question and Answer" in *NightLight*, Vol. 2, No. 1 for a discussion of overcoming fear in sleep paralysis.)

## WHEN DO OBES HAPPEN?

So, it seems possible that at least some OBEs arise from the same conditions as sleep paralysis, and that these two terms may actually be naming two aspects of the same phenomenon. As a first test of this idea, we should ask how many OBEs actually occur at times when people are likely to experience sleep paralysis -- that is, do OBEs happen when people are lying down, asleep, resting, or while awake and active?

Researchers have approached the question of the timing of OBEs by asking people who claim to have had OBEs to describe when they happened. In one of these, over 85 percent of those surveyed said they had had OBEs while they were resting, sleeping or dreaming. (Blackmore, 1984) Other surveys also show that the majority of OBEs occur when people are in bed, ill, or resting, with a smaller percentage coming while the person is drugged or medicated. (Green, 1968; Poynton, 1975; Blackmore, 1983 )

Survey evidence favors the theory that OBEs could arise out of the same conditions as sleep paralysis. There is also considerable evidence that people who tend to have OBEs also tend to have lucid dreams, flying and falling dreams, and the ability to control their dreams (Blackmore, 1983, 1984; Glicksohn, 1989; Irwin, 1988).

Because of the strong connection between OBEs and lucid dreaming, some researchers in the area have suggested that OBEs are a type of lucid dream (Faraday, 1976; Honegger, 1979; Salley, 1982). One problem with this argument is that although people who have OBEs are also likely to have lucid dreams, OBEs are far less frequent, and can happen to people who have never had lucid dreams. Furthermore, OBEs are quite plainly different from lucid dreams in that during a typical OBE the experient is convinced that the OBE is a real event happening in the physical world and not a dream, unlike a lucid dream, in which by definition the dreamer is certain that the event is a dream. There is an exception that connects the two experiences -- when we feel ourselves leaving the body, but also know that we are dreaming.

In our studies of the physiology of the initiation of lucidity in the dream state, we observed that quite of few of the lucid dreams we collected contained experiences like OBEs. The dreamers described lying in bed, feeling strange bodily

sensations, often vibrations, hearing loud humming noises, and then rising out of body and floating above the bed.

Those studies revealed that lucid dreams have two ways of starting. In the much more common variety, the "dream-initiated lucid dream" (DILD), the dreamer acquires awareness of being in a dream while fully involved in it. DILDs occur when dreamers are right in the middle of REM sleep, showing lots of the characteristic rapid eye movements. We know this is true because our dreamers give a deliberate prearranged eye-movement signal when they realize they are dreaming. These signals show up on our physiology record, so that we can pinpoint the times when lucidity begins and see what kind of brain state the dreamers were in at those times. DILDs account for about four out of every five lucid dreams that our dreamers have had in the laboratory. In the other 20 percent, the dreamers report awakening from a dream and then returning to the dream state with unbroken awareness -- one moment they are aware that they are awake in bed in the sleep laboratory, and the next moment, they are aware that they have entered a dream and are no longer perceiving the room around them. We call these "wake initiated lucid dreams" (WILDs).

A casual look at the dream reports and physiological records led us to think that the OBE-type dream content was happening mostly in WILDs. So, we analyzed the data scientifically in the experiment described below.

## THE LABORATORY STUDY

The data we studied consisted of 107 lucid dreams from a total of 14 different people. The physiological information that we collected in conjunction with each lucid dream always included brain waves, eye-movements, and chin muscle activity. These measurements are necessary for determining if a person is awake, asleep, and in REM sleep or not. In all cases, the dreamer signaled the beginning of the lucid dream by making a distinct pattern of eye movements that was identifiable by someone not involved with the experiment.

After verifying that all the lucid dreams had eye signals showing that they had happened in REM sleep, we classified them into DILDs and WILDs, based on how long the dreamers had been in REM sleep without awakening before becoming lucid (two minutes or

more for DILDs, less than two minutes for WILDs), and on their report of either having realized they were dreaming while involved in a dream (DILD) or having entered the dream directly from waking while retaining lucidity (WILD).

Alongside the physiological analysis we scored each dream report for the presence of various events that are typical of OBEs, such as feelings of body distortion (including paralysis and vibrations), floating or flying, references to being aware of being in bed, being asleep or lying down, and the sensation of leaving the body (for instance, "I was floating out-of-body").

## RESULTS: MORE OBE-LIKE EVENTS IN WILDS

Ten of the 107 lucid dreams qualified as OBEs, because the dreamers reported feeling like they had left their bodies in the dream. Twenty of the lucid dreams were WILDs, and 87 were DILDs. Five of the OBEs were WILDs (28%) and five were DILDs (6%). Thus, OBEs were more than four times more likely in WILDs than in DILDs.

The three OBE-related events we looked for also all occurred more often in WILDs than in DILDs. Almost one third of WILDs contained body distortions, and over a half of them included floating or flying or awareness of being in bed. This is in comparison to DILDs, of which less than one fifth involved body distortions, only one third included floating or flying, and one fifth contained awareness of bed.

The reports from the five DILDs that we classified as OBEs were actually much like those from the WILD-OBEs. In both the dreamers felt themselves lying in bed and experiencing strange sensations including paralysis and floating out-of-body. Although these lucid dreams sound like WILDs, we had classified them as DILDs because the physiological records showed no awakenings preceding lucidity. However, it is possible that these people could have momentarily become aware of their environments (and hence been "awake") while continuing to show the brainwaves normally associated with REM sleep. The science of the EEG is not sufficiently advanced that we can tell what people are experiencing by looking at their brainwaves. Anecdotes from dream reports indicate that people sometimes become aware of sensations from their sleeping bodies while dreaming -- for example, the dream in which you are trying to run while your legs become

heavier and heavier, perhaps because you are feeling their true immobile condition.

## OBES AND WILDS OUTSIDE THE LABORATORY

Our laboratory studies showed us that when OBEs happen in lucid dreams they happen either when a person reenters REM sleep right after an awakening, or right after having become aware of being in bed. However, we wondered if this relationship would apply to OBEs and lucid dreams that people experience at home, in the "real world."

Not being able to take the sleep lab to the homes of hundreds of people (the DreamLight may soon give us this capacity!), we took a survey about OBEs and other dream-related experiences, somewhat like the past studies referred to earlier. The difference between our survey and previous ones is that in addition to asking if people had had OBEs, we asked specifically about certain events that we know to be associated with WILDs, namely, lucid dreaming, returning directly to a dream after awakening from it, and sleep paralysis.

A total of 572 people filled out our questionnaire. They were either students in an introductory psychology course or readers of the NightLight. About a third of the group reported having had at least one OBE. Just over 80 percent had had lucid dreams. Sleep paralysis was reported by 37 percent and 85 percent had been able to return to a dream after awakening.

People who reported more dream-related experiences also reported more OBEs. For example, of the 452 people claiming to have had lucid dreams, 39 percent also reported OBEs, whereas only 15 percent of those who did not claim lucid dreams said they had had OBEs. The group with the most people reporting OBEs (51%) were those who said they had experienced lucid dreams, dream return, and sleep paralysis.

We would expect people who can return directly to dreams after an awakening to be prone to having WILDs, and therefore also to have frequent lucid dreams. Indeed, in this survey, people reporting frequent dream return also tended to report frequent lucid dreams. Thus, we believe that the fact that dream return frequency was linked with OBE frequency in this study

gives further support to our laboratory research finding that WILDs were associated with OBEs.

## WHAT DO WE KNOW NOW?

Our two studies have compared the frequency of OBEs in the two types of lucid dream, and surveyed the relative frequency of OBEs and dream-related events in a large number of people. We have thereby learned that when OBEs happen during lucid dreams, they generally happen in lucid dreams that arise from brief awakenings in REM sleep, and that people who have certain special dream experiences are more likely to have OBEs than people who do not. These dream experiences include returning to the dream state after an awakening, lucid dreaming and sleep paralysis.

Above we described our operating theory that OBEs occur when people lose input from their sense organs, as happens at the onset of sleep, while retaining consciousness. This combination of events is especially likely when a person passes directly from waking into REM sleep. In both states the mind is alert and active, but in waking it is processing sensory input from the outside world, while in dreaming it is creating a mental model independent of sensory input. This model includes a body. When dreaming, we generally experience ourselves in a body much like the "real" one, because that is what we are used to. However, our internal senses in the physical body, which when we are awake inform us about our position in space and the movement of our limbs. This information is cut off in REM sleep. Therefore, we can dream of doing all kinds of things with our dream bodies -- flying, dancing, running from monsters, being dismembered -- all while our physical bodies lie safely in bed.

During a WILD, or sleep paralysis, the awake and alert mind keeps up its good work of showing us the world it expects is out there -- although it can no longer sense it. So, then we are in a mental-dream-world. Possibly we feel the cessation of the sensation of gravity as that part of sensory input shuts down, and then feel that we are suddenly lighter and float up, rising from the place where we know our real body to be lying still. The room around us looks about the same, because that is our brain's best guess about where we are. If we did not know that we had just fallen asleep, we might well think that we were awake, still in touch with the physical world, and that something mighty strange was happening -- a departure of the mind from the

physical body!

The unusual feeling of leaving the body is exciting and alarming. This, combined with the realistic imagery of the bedroom is enough to account for the conviction of many OBE experiencers' that "it was too real to be a dream." Dreams, too, can be astonishingly real, especially if you are attending to their realness. Usually, we pass through our dreams without thinking much about them, and upon awakening remember little of them. Hence, they seem "unreal." But waking life is also like that -- our memory for a typical, mundane day is flat and lacking in detail. It is only the novel, exciting, or frightening events that leave vivid impressions. If we stop what we are doing, we can look around and say, "Yes, this world looks solid and real." But, if you look back and try to recall, for instance, brushing your teeth this morning, your memory is likely to be vague and not very life-like. Contrast this to a past event that excited or alarmed you, which is likely to seem much more "real" in retrospect.

Lucid dreamers often comment to themselves in dreams, "I know this is a dream, but it all seems so incredibly real!" All this goes to show that the feeling that an event is real does not mean that it is happening in the physical world that we all share when we are awake. This is not to deny that that inner experiences are real, in that they have deeply profound effects on our lives. However, as lucid dreaming so amply demonstrates, we can learn to distinguish between our personal dreams and events in the consensus dream we call physical reality. When we do, we find that what we thought was one thing -- the waking world -- is actually another -- a dream.

Proof that some or even most OBEs are dreams is not enough to allow us to say that a genuine OBE is impossible. However, in the interests of lucidity, if you have an OBE, why not test to see if the OBE-world passes the reality test? Is the room you are in the one you are actually sleeping in? If you have left your body, where is it? Do things change when you are not looking at them (or when you are)? Can you read something twice and have it remain the same on both readings? If any of your questions and investigations leave you doubting that you are in the physical world, is it not logical to believe you are dreaming?

Another point to consider is that a dream doesn't always

have to happen in REM sleep. Most do, but there are probably quite a few other conditions in which people can lose touch with sensory experience and enter a mental world. Some such states that we know of are hypnotic trance, anesthesia, and sensory isolation. OBEs have been reported from these states (Nash et al., 1984; Olson, 1988). Thus, the argument that an OBE cannot be a dream because the experient wasn't asleep doesn't hold water.

## THE "IN-THE-BODY" EXPERIENCE

To end this discussion of the origins of the OBE, an event considered unbelievable by many and metaphysical by others, let's consider the state of affairs that is considered normal: the "in-the-body" experience. What does it mean to be in a body? Saying that one is in a body implies that the self is an object with definite borders capable of being contained by the boundaries of another object -- the physical body. However, we do not have any evidence that the self is such a concrete thing. What we think of as "out-of-body" in an OBE is the experience of the self. This experience of being "in" a body is normally based on perceptual input from the senses of both the world external to the body and the processes within the body. These give us a sense of localization of the self in space. However, it is the body, and its sense organs, that occupy a specific locus, not the self. The self is not the body or the brain. If we think that the self is a product of brain function, even this does not make it reasonable to state that the self is in the brain -- is the meaning contained in these words in this page? It may not make any sense on an objective level to say that the self is anywhere. Rather, the self is where it feels itself to be. Its location is purely subjective and derived from input from the sensory organs.

Putting aside the question of the essential nature of the self, perception is undeniably a phenomenon tied to brain function. So, when we find ourselves experiencing a world that seems much like the one we are used to perceiving with our usual equipment -- eyes, ears, etc., all things linked to our brains, it would be logical to assume that it is our usual brain creating the experience. And, if we were to really leave our bodies -- severing all connection with them -- it would be illogical to assume that we would see the world in the same way. Therefore, although no amount of contradictory evidence can rule out the possibility of a real "out of body experience," in which an

individual exists in some form entirely independent of the body, it is highly unlikely that such a form would utilize perceptual systems identical to those of the physical human form.

Spiritual teachings tell us that we have a reality beyond that of this world. The OBE may not be, as it is easily interpreted, a literal separation of the soul from the crude physical body, but it is an indication of the vastness of the potential that lies wholly within our minds. The worlds we create in dreams and OBEs are as real as this one, and yet hold infinitely more variety. How much more exhilarating to be "out-of-body" in a world where the only limit is the imagination than to be in the physical world in a powerless body of ether! Freed of the constraints imposed by physical life, expanded by awareness that limits can be transcended, who knows what we could be, or become?

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