

## **Lucid Dreams and Viewpoints in Imagery: Two Studies**

**SUSAN BLACKMORE**

*University of Bristol, Great Britain*

There is much evidence that the same people tend to report both lucid dreams and out-of-body experiences (OBEs) (Irwin & Blackmore, 1988), but there is no general accepted explanation for this association. One way of exploring this further is to see whether the same cognitive skills are associated with the two experiences. Previous studies have shown the vividness of imagery and control of imagery are not associated with lucid dreaming (Blackmore, 1982; Hearne, 1978), while recent studies show some association between having OBEs and certain visuospatial skills (Cook & Irwin, 1983).

In three recent studies I explored the relationship between having OBEs and the use of viewpoints in imagery and memory (Blackmore, 1983; 1985). A theory of OBEs (Blackmore, 1984) predicted that OBEs should be more likely to use an "observer" perspective in recall and dreams and to be able to switch easily from one viewpoint to another in imagery. I also predicted that, if the observer viewpoint is used as an escape from unpleasant situations, bad dreams should more often be re-called in observer perspective than good dreams.

Several of the predictions were confirmed. As expected, unpleasant dreams were more often recalled in observer perspective. It was found that OBEs do not more often use an observer viewpoint in recall of real life situations, but they do more often use it in dream recall. Also OBEs reported having more vivid imagery from different viewpoints and were consistently better at switching from one viewpoint to another in imagery tasks. This was especially so for the viewpoint above the head, which is common in OBEs.

It is of interest to know whether the same differences would appear for those who have lucid dreams. Therefore, the results of the second two studies were compared for those who did and did not have lucid dreams.

### **Experiment 1: Method**

*Subjects.* There were 135 subjects, tested in four groups. The majority, 68%, were female with ages ranging from 17 to 94 (mean = 43.1 years).

*Procedure.* The subjects were asked to imagine the room in which they were sitting

(various classrooms and libraries) from four to five different locations. They then had to rate how clear and vivid their image of the room was using a scale from 1 (no image) to 7 (a perfectly clear and detailed image). The locations were at eye level in the doorway, by the ceiling above their own head, by the ceiling above someone else's head, by their feet and at their own eye level. The last of these was used for only 63 of the subjects.

The subjects were also asked where they normally perceive their "self" or "center of awareness" to be and were asked to try to switch their viewpoint or center of awareness from its normal position to above their head and back, and from their normal position to their feet. They were asked to rate how easily they could do this on a scale from 1 (not at all) to 7 (extremely easily). It was predicted that it would be much easier to switch to a position above the head than to the feet.

Finally they were asked whether at any time during the exercises they either saw their own body from the outside, or seemed to have another body at their imagined location. They were asked whether they had ever had a lucid dream or an out-of-body experience. The lucid dream question was worded as follows: "Have you ever had a dream in which you knew at the time that you were dreaming? If in doubt, please answer "No." They were also asked whether they had ever induced a lucid dream or OBE deliberately.

## Results

As expected the room was easiest to imagine from the subjects' own eye level and most difficult from the feet. It was much easier to switch viewpoints to a position above the head ( $x = 3.7$ ) than to one at the feet ( $x = 2.1$ ). During these various exercises 22% of the subjects claimed that they saw themselves from the outside and 15% that they had another body in their imagined location.

The most common position of normal center-awareness was behind the eyes (65%). The next most common positions, the top of the head and the forehead, represented only 12% of the subjects. 6

Eighty-six (64%) of the subjects claimed to have had lucid dreams. Of these, 13 (15%) claimed to be able to have them deliberately. There were no age or sex differences between those who reported lucid dreams and those who did not. Subjects reporting having had at least one OBE were 22% of the sample. There was no association between those having OBEs and lucid dreams ( $X^2(1) = .04$ ).

The lucid dreamers were no better than others at the imagined viewpoint exercises.

Subjects were given a combined score for their rated vividness of imagery from the different positions. The mean score for lucid dreamers was 14.6, for others 13.8 ( $t = .79$ , n.s.)

Lucid dreamers were no more likely to see themselves or to have another body during the imagery exercises, and they showed no differences in the normal position of "self."

The one positive finding was that lucid dreamers were better at switching from one viewpoint to another, especially when switching from the normal position to one above the head ( $t(102) = 1.99$ ,  $p < .05$ ).

## **Experiment 2: Method**

*Subjects.* Subjects were 187 students, mostly school sixth formers but also some university and adult education students. Ages ranged from 17 to 75, but most were 17 to 20. There were 98 females and 89 males.

*Procedure.* Subjects were given a questionnaire about their dream life and asked whether they had ever had an OBE. The lucid dream question was "Have you ever had a dream in which you knew at the time (i.e., during the dream) that you were dreaming?" Possible answers were: a. Never, b. Occasionally (e.g., 1–5 times), c. Often (e.g., 5–20 times), d. Very often (more than 20 times) and e. Can have one whenever I like. They were then asked, in a way similar to that used by Nigro and Neisser (1983), to remember seven events and to write brief descriptions of these events, and they were then asked to say whether they imagined them as though from the observer's position, seeing themselves in the scene, or from their current position, that is, as they would have seen it looking from their eyes. There were three "real life" situations to recall (first thing this morning, this time last Sunday and this time on Christmas Day) and four dreams (last night's, last week's, the best and the worst dreams they could remember). Subjects were also given the Edinburg Handedness Inventory (Oldfield, 1971).

## **Results**

The different recall situations differed markedly in the proportions of view-points used (see Table 1).

As predicted, the worst dreams were recalled more often in the observer perspective than the best dreams.

Thirty-eight subjects (23%) claimed to have had an OBE, while 152 (82%) reported having lucid dreams. The frequency of lucid dreaming is shown in Table 2. There was no association between having OBEs and lucid dreams ( $X^2(1) = .25$ ). There were no sex differences between lucid dreamers and others.

Lucid dreamers were more likely to report vivid dreams, and to enjoy their dreams. Contrary to previous findings (e.g. Blackmore 1982; 1983b) they were not more likely to have flying dreams (see Table 3). However, none of the correlations are very strong.

The relative percentages of lucid dreamers and others who reported using an observer perspective for the different questions were compared. No significant differences were observed (See Table 4).

There were no differences in handedness between lucid dreamers and others ( $X^2 = .45$ , n.s.) nor in laterality quotient, a measure of the extremeness of handedness ( $r = 0.10$ ).

## **Discussion**

These results show that lucid dreamers differ from other dreamers in being better at switching viewpoints from one imaginary location to another. In this respect they are similar to OBEs. Indeed the ability to switch viewpoints most clearly distinguished the OBEs from others. One possible interpretation is that there is one skill which underlies both experiences.

However, no other significant differences were found between lucid dreamers and others.

One drawback to this study is that the percentage of subjects reporting lucid dreams depends upon only one question. It is quite possible that the size of the lucid dreaming groups are inflated by false positives. This could be circumvented by interviewing the subjects, giving more extensive questionnaires, or asking them to write an account of a lucid dream. This is a general problem, applying to the survey work on both OBEs and lucid dreams. It needs to be dealt with before more definite conclusions about the cognitive skills involved in having lucid dreams can be made.

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