

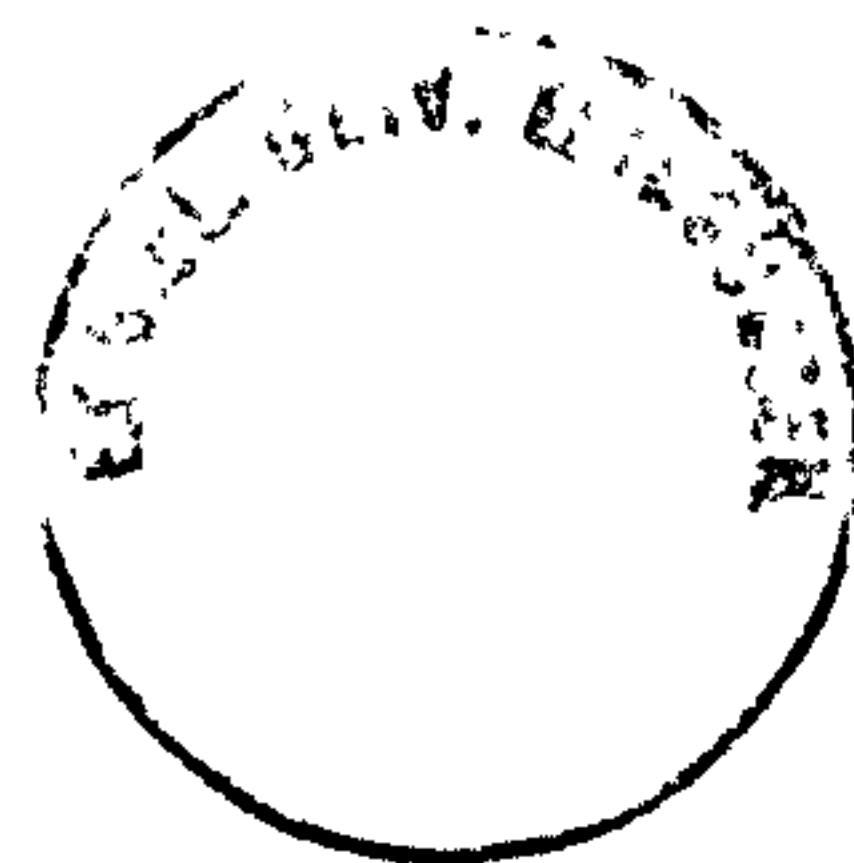
Psychological and Phenomenological  
Characteristics of Out-of-Body Experiences

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# Dedication

To my parents

Ileana Vélez

and

Carlos M. Alvarado

For their love, support,

and for teaching me the value of education and self-improvement

## Acknowledgments

This thesis would not have been possible without the financial support of different organizations and the invaluable personal help I have received in recent years from many individuals. My initial studies were funded by a grant from the Parapsychology Foundation, for which I thank Mrs. Eileen Coly and Lisette Coly. Their belief in the importance of my work is highly appreciated. Without this initial grant nothing of what followed would have been possible. The continuation of the work reported in this thesis was possible thanks to the generous support of the Society for Psychical Research, the Institut für Grenzgebiete der Psychologie und Psychohygiene, the Koestler Chair of Parapsychology, and the Perrott-Warrick Fund.

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## Declaration

While this thesis has been composed by myself and the work is my own, I would like to acknowledge the help of Nancy L. Zingrone with some statistical analyses and in entering the data of all the studies reported here in a statistical package.

The following papers based on my thesis research were published or presented in conferences:


Alvarado, C.S. (1997). Mapping the characteristics of out-of-body experiences. *Journal of the American Society for Psychical Research*, 91, 15-32. (Chapter 2)

Alvarado, C.S. (in press). Out-of-body experiences. In E. Cardeña, S.J. Lynn, & S. Krippner (Eds.), *The variety of anomalous experience*. Washington, DC: American Psychological Association. (Part of Chapter 2 and Chapter 6)

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Carlos S. Alvarado

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## Abstract

This thesis is concerned with the study of the out-of-body experience (OBE). The OBE is an experience in which a person feels that their "self", or their center of awareness, is located outside of their physical body. The experience generally includes the organization of perceptions in such a way as to be consistent with a location outside of the body. My analyses focus on the phenomenological and psychological dimensions of the OBE as tested in five questionnaire studies using convenience samples. The first part of the thesis is concerned with the phenomenology of the experience, that is, the features that experiencers report as part of their OBEs. Part of this research is frankly exploratory. Other parts are designed to test specific predictions based on previous findings reported in the literature on the subject. The second part of the thesis includes two studies which attempt to relate the OBE to such psychological variables as everyday altered states of consciousness, personality variables, dreams, and dissociative experiences. Several analyses in these studies set out to test aspects of Blackmore's (1984) OBE model specifically. Each part of the thesis includes literature reviews of the topics in question.

The first part of the thesis contains three studies with the following samples: (1) American college students (N = 60); (2) readers of a Spanish New Age magazine (N = 492); and (3) individuals (mainly British) who answered requests for cases printed in newspapers and in other sources (N = 88). All of these studies provide information about the incidence of a variety of features of the OBE. It was predicted that an index of OBE features, formed by counting the positive replies to questions about specific features, would be higher in individuals who had had multiple OBEs and in those who reported that they were able to have the experience at will. Support for the hypotheses was obtained in studies 2 and 3. These results are consistent with Blackmore's OBE model. In addition, in the third study I replicated some previous findings which found that higher frequencies of certain OBE features are reported in experiences that occur in near-death circumstances as compared to those which were "non-near death". This study also obtained positive correlations between measures of OBE frequency and OBEs at will and scores on the Tellegen's Absorption Scale, and on shortened versions of the Perceptual Aberration Scale (PAS) and the STA (in this analysis significant results were obtained only with OBEs at will). As predicted, the index of OBE features was significantly and positively correlated with having OBEs at will and with a measure of schizotypal experiences (PAS).

The second part of the thesis was concerned with relating the occurrence of OBEs to psychological variables. The first study was conducted with artists and other creative people living mainly in Edinburgh, Scotland (N = 97). These people were participants in an experiment conducted at the Department of Psychology of the University of Edinburgh. In the context of this experiment these participants filled out a variety of questionnaires. The second study was conducted with American college students (N = 308). In the first study it was predicted that individuals who reported OBEs (64% of the sample), unlike those who did not claim OBEs, would also report a higher frequency of spontaneously occurring absorption experiences (that is, losing track of time and losing

track of their surroundings while engaged in tasks), and of parapsychological experiences such as claims of extrasensory perception during dreams and while awake. In addition, it was also predicted that those who reported OBEs would obtain higher scores on the Openness factor and its facet Fantasy, as measured by the NEO-PI-R. With the exception of the NEO variables, the predictions were confirmed. In the second study it was predicted that both the incidence and the frequency of OBEs would be positively and significantly correlated to a measure of dissociative experiences, the Dissociative Experiences Scale (DES). The hypotheses were confirmed. The OBE correlated significantly with a subset of the DES identified in previous work as particularly related to psychiatric conditions.

The studies reported in this thesis must be qualified in that the samples used are convenience samples, that is, they cannot be considered representative of the population. In addition, it is possible that participant biases in claiming too many experiences may contaminate the results of these studies. Nonetheless, the results of many of the analyses are similar to those of other studies. In the final analysis all of these results have to be evaluated by the results of future studies.

Many of the results of the studies presented here, however, support Blackmore's psychological model, particularly those related to OBE frequency and willfulness. It is important to qualify the positive and significant relationships found between OBEs or some of its aspects and schizotypy and dissociation measures. Such correlations do not necessarily imply pathology or maladjustment. They should be explored further in work which stresses contextual and situational variables. The studies reported in this thesis, together with those found in the previous literature on the subject, support the view that the OBE is a phenomenon intimately related to different aspects of psychology. Like other "unusual" phenomena such as visual and auditory hallucinations, lucid dreams, and synesthesia, the OBE deserves to be put on the research agenda of developmental, clinical, and cognitive psychologists. The phenomenon is common enough that it should be understood, in and of itself, and as an experience which occurs within a psycho-social context.

Part 1:

Introduction to the

Out-of-Body Experience

# I. The Out-of-Body Experience

## Definitions of Key Concepts

Altered states of consciousness (ASCs), are defined as “any state of mind that differs markedly enough from that which we associate with our normal waking selves” (Parker, 1975, p. 8). They have been of interest to psychologists in modern times especially since the 1960s and the 1970s (for reviews see Parker, 1975; Tart, 1969a; and Wolman & Ullman, 1986). Some examples of ASCs include phenomena such as dreams, hypnosis, mystical experiences and the effects of meditation and hallucinogenic drugs. This interest was clearly illustrated and popularized in two influential books: Charles Tart's anthology *Altered States of Consciousness* (1969a) and Robert Ornstein's *The Psychology of Consciousness* (1972). Papers published in leading psychiatry and psychology journals such as Ludwig's (1966) discussion of the features of altered states and Stoyva and Kamiya's (1968) defense of converging approaches to the study of inner human experience (i.e., the joint use of verbal reports and physiological measures) brought much attention to the topic. Perhaps no other phenomena than the ASCs experienced using hallucinogenic drugs such as LSD-25, mescaline, and psilocybin called more the attention of behavioral scientists and lay people alike to the concept of different states of consciousness (e.g., Aaronson & Osmond, 1970), something that generated much research and therapeutic work on the subject (e.g., Grof, 1975; Masters & Houston, 1966/1973; Pahnke & Richards, 1969; Panton & Fisher, 1973; for reviews see Naranjo, 1986; and Parker, 1975, chapter 7). Similarly, a focus on alterations of consciousness was evident in the influential hypnosis work of Hilgard (1968), Tellegen and Atkinson (1974), and Shor (1962). Other work focused on dreams (Foulkes, 1964), including

lucid dreams, or the awareness that one is dreaming while in a dream (Green, 1968a), on mystical experiences (Deikman, 1966), and on the experiences associated with the practice of meditation (Goleman, 1977; Naranjo & Ornstein, 1971). This period also saw Tart's (1972) important conceptual work regarding state specific-sciences (or the advantages of studying ASCs while the researcher was having the experiences in question) and his structural model of consciousness and its changes based on psychological and situational factors impinging the individual (Tart, 1975).

More recent discussions regarding ASCs include studies about changes in self identity, memory and sense of time after a natural disaster (Cardena & Siegel, 1993), physiological correlates of ASCs (Dittrich, 1996), experiential aspects of meditation (Forte, Brown, & Dysart, 1987-1988), lucid dreams (Green & McCreery, 1994), hypnosis (Hilgard, 1986), the hypnagogic state, or alteration of consciousness experienced while falling asleep (Mavromatis, 1987), and religious experiences (Spanos & Moretti, 1988). An important methodological event was Pekala's (1991) development of scales to measure the components of altered states, taking into consideration such aspects of the experiences as vividness of mental imagery and affect, among other variables.

This thesis is concerned with the study of a specific ASC, the out-of-body experience (OBE) (for general reviews of the literature see the previous non-thesis work of the author, Alvarado, 1986b, 1988, 1989b, 1992; and the books of Blackmore, 1982a; and Irwin, 1985a). This experience is one in which a person feels that their self or their center of awareness is located outside of their physical body. The OBE generally includes the organization of perceptions in such a way as to be consistent with a location outside of the body. In addition, the OBE may include such features as sensations of



floating, traveling to distant locations, and observing the physical body, among others.

To clearly illustrate what is meant by an OBE, I present the following OBE cases I have collected in my studies.

### Case 1

The following was sent to me by a 36-year old American police woman from California. On her first night on patrol, she had to pursue an armed suspect. She wrote: "When I and three other officers stopped the vehicle and started getting the suspects . . . I was afraid. I promptly went out of my body and up into the air maybe 20 feet above the scene. I remained there extremely calm, while I watched the entire procedure -- including watching myself do exactly what I had been trained to do . . . ." She found herself back in her body after the suspect had been put in custody in the police car.

### Case 2

A Scottish woman wrote to me that when she was 32 years old she had an OBE while training to run in a marathon: "After running approximately 12-13 miles . . . I started to feel as if I wasn't looking through my eyes but from somewhere else . . . . I felt as if something was leaving my body and although I was still running along looking at the scenery I was looking at myself running as well. My 'soul' or whatever, was floating somewhere above my body high enough up to see the tops of the trees and the small hills."

### Case 3

A 49-year-old British man fell a distance of 18 feet while working on an asbestos

roof. He crashed head first through the roof. As his body lay on the ground, he wrote: "I saw a light and moved towards it, sailing through the . . . wall leaving my body behind. The movement was effortless and sublimely comfortable; the light was intense without dazzle or scorch; it was love, joy and perfection and welcomed me unreservedly."

There may be some confusion in the determination of whether or not an experience counts as an OBE. Both Hart (1954) and Tart (1974b) have emphasized the difference between those experiences in which the person has the somaesthetic sense of being located out of the body and other experiences in which the sense of separation from the body is not present or is unclear. In this sense, autoscopy (the experience of "seeing" a replica of the self from the point of view of the physical body), depersonalization (a cluster of phenomena that includes feelings of change in the sense of identity to the point that individuals feel alien to themselves, feeling that they are not real), and similar experiences reported by patients who suffer from temporal lobe epilepsy do not qualify as an OBE, as long as the person's sense of self remains in their body. This is not to say that an OBE or a shifting of that sense of awareness to a location outside of the body have not been reported as part of these disturbances (e.g., Brugger, Agosti, Regard, Wieser, & Landis, 1994; Green, 1968b, p. 124; Steinberg, 1995).

Recent writings have popularized OBEs that have occurred while the person is close to death (e.g., Fenwick & Fenwick, 1995; Greyson, 1983; Greyson & Stevenson, 1980; Ring, 1980; Sabom, 1982; Sutherland, 1992/1995), but the experience has been reported under normal conditions as well and under stress, during meditation, during illness, and through voluntary induction. Although the OBE may occur when a person is close to death, that does not mean that such an OBE is necessarily a near-death

experience (NDE). Irwin (1985a) has said: "The NDE is not simply a variety of the OBE: the former has additional facets which give it status as an experiential syndrome in its own right' (Irwin, 1985a, p. 12). (For a discussion of the NDE see Blackmore [1993] and Roberts and Owen [1988].) In line with definitions of NDEs derived from scales constructed for this research such as those developed by Greyson (1983) and Ring (1980), it is possible to conceptualize an NDE which does not include the OBE component. For the purposes of this thesis, I will accept as an OBE any experience that meets the criteria set before in this chapter (that is, an emphasis on the sensation of location outside of the physical body). Consequently, it is possible for OBEs to occur in near-death circumstances and in other circumstances, without being worried about the mix of two different phenomena. The issue of differences in content as a function of the circumstances surrounding OBE induction is an empirical one and one that is addressed in one of the studies of this thesis.

Although the modern study of OBEs is part of the resurgence of interest in ASCs in both psychology and psychiatry that occurred in the 1960s and 1970s (for overviews see Alvarado, 1989b; and Parker, 1975), it should be recognized that reports of OBE occurrence are much older than that. There are records of both OBEs and the belief in the possibility of leaving the body in the writings of the ancients, including those from classical antiquity and ancient Chinese and Indian texts (Mead, 1919; Poortman, 1954/1978; Rogo, 1968). Zaleski (1987) has found many examples of OBEs occurring during such physical crises as severe illnesses or life threatening accidents that were recorded during the middle ages. Modern case collections have presented cases reported to occur during the nineteenth century and the early decades of the twentieth century (Crookall, 1961; Muldoon & Carrington, 1951). Clearly, the historical record shows that

the phenomenon, like other aspects of human experience, has been reported to occur for a long time.

### Focus of this Thesis

In this thesis I present several studies conducted to explore the phenomenological features of the OBE (e.g., the experiences people report they see and feel during the OBE) and the relationship of OBE incidence to psychological variables. This problem was chosen because the OBE is a particularly useful phenomenon to study anomalous or little understood ways in which the human mind perceives its environment. Like the study of hallucinations in general (Bentall, 1990; Siegel & West, 1975), the OBE is an ASC in which the human mind experiences a variety of perceptual and kinesthetic changes (the sensation of perceiving the environment from, and of being located at, a position outside of the physical body) that are obviously different from the usual way of perceiving our surroundings. By studying cognitive phenomena of this sort it is possible not only to understand more about the variety and correlates of ASCs experienced by human beings, but in the long term the study of such phenomena as OBEs may illuminate the mechanisms utilized by our cognitive system to organize our perceptions from the spatial location of the physical body. If, as will be discussed later in this chapter, the OBE is a form of hallucinatory experience, its study can do no less than contribute to the way the human mind organizes perceptual experiences and creates representations of what experiencers consider to be different realities (this idea has been further elaborated by Blackmore, 1982a, 1984b). Consequently, any study of the phenomenology and psychology of the OBE will contribute in some measure to our understanding of perception, ASCs and mental imagery.

In addition, there are other reasons why I have chosen the OBE as the focus of my research. As I have argued elsewhere in work unrelated to this thesis (Alvarado, 1996), it is our responsibility as researchers to try to understand the phenomena that are of interest and that worry people in general. In my experience over the years many people who have had OBEs and other unexplained experiences think that these phenomena are particularly important for an understanding of human nature, especially for spiritual and religious concerns. Unfortunately few psychologists have paid attention to these phenomena, the consequences being that the field of psychology at large has little to say about these experiences, and little knowledge with which to answer the questions of experiencers. A particular cause for alarm for the experiencer is the possible relationship between the OBE and psychopathological phenomena. Certainly the OBE may be considered to be a form of depersonalization, or some other dissociative phenomenon. The study of the features of the OBE, for example, may help to compare the details of psychopathological syndromes or experiences which are considered to represent maladjustment problems to those of such OBEs as the ones presented in Appendix 1 of this thesis.

Finally, studies along the lines of the ones presented in the last chapters of this thesis are a contribution to the understanding of ASCs in general and of the relationships of OBEs to other experiences (e.g., spontaneous ASCs in daily life such as lucid dreams) and to other psychological variables (e.g., personality and cognitive variables).

### Incidence and Frequency of OBEs

From questionnaire studies we can get an idea of how common OBEs are. The

following comments are based on a previously published tabular presentation of studies (Alvarado, 1986b; Irwin, 1985a) and on additional studies listed below on Table 1.

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Table 1  
Average Percentage of OBE Incidence in Different Types of Groups

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Studies	Number of Studies	Mean OBE Percent	Range	SD
General Population*	5	10.00	6-14	2.83
Students	46	25.43	6-72	13.13
Parapsychology-Related Groups	11	40.18	13-66	15.10

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\*Representative samples with randomly selected participants.

**Note:** Most of the studies used in these analyses are listed in tables presented by Alvarado (1986a) and by Irwin (1985a, pp. 174-175). Additional studies are: (Student samples) Brelaz de Castro (1997), Chadha, Sahni & Alvarado (1987), Clarke (1995), Glicksohn (1989, 1990), Pekala et al (1992, 1995), Severi (1995), Spanos & Moretti (1988), Stanford (1987), Tobacyk & Mitchell (1987), Usha & Pasricha (1989a), Zangari & Machado (1996); (Parapsychology-related group samples) Alvarado & Zingrone (in press-b), Glicksohn (1990), Richards (1988, 1991), and Thalbourne (1994).

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Table 1 shows the descriptive statistics of the studies analyzed. The highest incidence was shown by parapsychology-related groups (such as members of groups interested in parapsychological phenomena and students taking parapsychology courses), followed by students and by general population groups.

Table 2  
Statistical Comparison of OBE Incidence by Type of Sample

Sample	Number of Studies	OBE Mean Percent	Mann-Whitney U z	p	es*
General Population	5	10.00			
Students	46	25.44	2.85	.004	1.34
General Population	5	10.00			
Parapsychology Related	11	40.18	3.00	.003	1.62
Students	46	25.44			
Parapsychology Related	11	40.18	2.77	.01	1.49

\*The effect size was calculated using the following equation:

$$z\sqrt{1/n_1+1/n_2}$$

Table 2 shows statistical comparisons of OBE incidence drawn from different samples. For example, the first comparison shows that the general population group obtained a significantly lower mean percent (10.00) of incidence than the student sample (25.43). Because the general population group consists of only five studies which do not

provide the same range of percentages as the 46 student samples, I conducted the analysis again by randomly selecting five comparison studies from among the student groups. Although the descriptive statistics remained the same for the general population groups (N = 5, Mean = 10.00) they changed for the student groups (N = 5, Mean = 24.00). The difference was, however, still significant, and still favored the student groups (Mann Whitney U  $z = 2.39$ ,  $p = .02[2t]$ ,  $es = 1.51$ ). At this point it is difficult to explain why student populations should report more OBEs than do the general population. Palmer (1979a) suggested that higher use of mind-altering drugs among students may provide one answer. However, there is no evidence that the majority of college students' OBEs occurred during the use of drugs. Irwin (1985a, p. 176), on the other hand, has suggested that students may be better able to report OBEs, possibly because they have greater self-observational skills, or because they have had the experience more recently, or because they are more willing to report unusual experiences than are other individuals.

Table 2 (previous page) also shows that individuals from parapsychology-related groups have a significantly higher mean of OBE incidence (Mean = 40.18) than general population groups (Mean = 10.00). The difference still is significant when the general population groups are compared to five randomly selected studies from the parapsychology-related groups (N = 5, Mean 38.00,  $z = 2.87$ ,  $p = .004[2t]$ ,  $es = 1.82$ ). In addition, OBE incidence is significantly higher in the parapsychology related groups (Mean = 40.18) than in the student groups (Mean = 25.43). These differences are not surprising when it is realized that many groups and courses which focus on parapsychology and related topics tend to bring together many individuals who have had unexplained experiences, thereby increasing the incidence of phenomena such as OBEs.



High incidence of OBEs has also been obtained from other special samples not included in Table 1 and 2, among them, schizophrenics (42%, Blackmore, 1986a), individuals high on fantasy-proneness (88%, Wilson & Barber, 1983), and marijuana users (44%, Tart, 1971). Unfortunately, these groups are too different to group them together for any meaningful analyses.

The studies have clearly shown that the incidence of multiple OBEs is significantly higher than the incidence of single occurrences. In a previous analysis that assessed 19 studies with information for this comparison it was found that, on the average, 30% of respondents reported a single OBE while 67% reported more than one OBE (Alvarado, 1986b). The difference, statistically significant ( $p < .02$ , two-tailed), may mean that those who have had one OBE are prone to have the experience repeatedly. Or we may propose that, by having had the experience once, the individual develops the cognitive resources necessary to repeat the OBE. When I refer to cognitive resources I mean resources such as attentional level, imagery, and memory.

Although one previous review found that OBEs occur frequently in relaxed conditions (Alvarado, 1986b), no systematic research has been conducted to compare the incidence of the experience under different circumstances.

### Demographic Variables

Many studies have explored demographic correlates of the OBE such as age, sex, marital status, education and income (e.g., Blackmore, 1982b, 1984a; Gabbard & Twemlow, 1984; Green, 1966, 1967; Kohr, 1980; Myers, Austrin, Grisso, & Nickesson, 1983; Palmer, 1979; Usha & Pasricha, 1989a). In general these variables have rarely been significant predictors of the OBE. The exceptions include relationships with sex

(Blackmore, 1982b, higher frequency with males; Kohr, 1980, unspecified relationship), with age (Blackmore, 1982b, experiences older than non-experiences), and marital status (Palmer, 1979, higher incidence in the separated/divorced group). But these are selected findings out of several nonsignificant studies (for reviews see Alvarado, 1986b, and Irwin, 1985a).

### Theoretical Models

Throughout the history of OBE research two general perspectives have guided both research and theory. On one hand, some researchers have suggested that “something” literally goes out. Alternatively, the experience is thought to be imaginal in nature (for reviews of these, and other concepts, including psychophysiological speculations, see Alvarado, 1992; Blackmore, 1982a; and Irwin, 1985a). I will refer to the former perspective as the projection model and to the latter as the psychological model.

The projection model has a long history, traditionally associated with occult and spiritualistic systems of thought (for reviews see Alvarado, 1982b; Blackmore, 1982a; Irwin, 1985a). Different versions of this model have been defended or assumed by Bozzano (1934/1937), Crookall (1961), Hart (1967), and Rogo (1978b), among others (for variants of this model difficult to classify as projection ideas see Tart, 1974a; and Whiteman, 1975).

Belief in the projection model has largely been maintained by observations of experiencers who claim that they see themselves during the experience in a replica of their physical bodies and that some have felt sensations of leaving and returning to the

body. In addition, the projection model has been traditionally associated with those few reports of veridical perceptions during the OBE, and with reports of second or third observers who claim to have seen an apparition of the OB-experient at the time and place the experient has claimed to be present (Hart, 1954; Hart & Collaborators, 1956; Laurentin & Mahéo, 1990).

The problem with the projection model is the difficulty one encounters when attempting to test it scientifically. Although the claims mentioned above are interesting, they have not been systematically studied, and alternate explanations may be forthcoming. Some direct experimental attempts to detect an “extrasomatic” component of OBEs while someone claims to be having the experience have been carried out, however. I will not comment on the old studies that used photography and other means of detection (see reviews by Alvarado, 1980; and Blackmore, 1982a). Instead I will limit my comments to two modern attempts to detect the OBE physically. The first used a combination of physical and biological detectors while the gifted subject and researcher, S. Harary, tried to visit a distant place during an OBE (Morris, Harary, Janis, Hartwell, & Roll, 1978). The measurements taken from a variety of heat, light and other physical fields detectors were not significant. More useful was the use of a small kitten, which seemed to react to Harary’s presence in some sessions, as measured by the animal’s movements and its vocalizations. Other tests with the same kitten obtained suggestive initial results but these declined in later testing. In another study researchers postulated that the detection of an OB-subject in a distant location should correlate with the acquisition of information present only at that location (Osis & McCormick, 1980). A self-proclaimed psychic, the late Alex Tanous, was asked to visit a viewing window during an OBE. The window was fitted with strain-gauge sensors that detected

surrounding changes and the subject was kept blind to this element of the experiment. As expected, in the trials in which correct information was retrieved by Tanous, instruments recorded higher activation levels of the strain gauges than during trials in which correct information was not retrieved. One purpose of some of these studies was an attempt to see if vision reported as occurring during the OBE would be distorted in the same manner as normal vision should have been while the subject tried to view targets through an optical apparatus (Osis, 1975). The results did seem to show that some of the subject's perceptions were distorted, supporting the notion that Tanous was present, in some way, in front of the optical apparatus looking at the intended target. Although these studies may be a potentially useful test of the projection model of the OBE, no one has tried to replicate them. In addition, it is always conceivable that the results can be explained in some other way, say, as involving other processes of anomalous communication (such as extrasensory perception or the supposed acquisition of information without sensory means; some examples of this research has been reviewed by Bem and Honorton, 1994). However, the Osis and McCormick study at least points to the possibility that both the anomalous perceptual correlates and the physical correlates of the OBE may be studied experimentally.

Some laboratory studies have shown evidence that individuals may obtain veridical information while out of their bodies (e.g., Palmer & Vassar, 1974; Tart, 1968; for a review of this literature see Alvarado, 1982a). However, the interpretation of these results is open to question and does not necessarily support the projection model. It is possible to conceive of these results as examples of extrasensory perception in an altered state of consciousness, namely during the OBE. That is, if extrasensory perception is facilitated by the occurrence of altered states of consciousness, as some have argued (see

the reviews of Honorton, 1977; and Parker, 1975), then the alteration of consciousness I have referred to as an OBE may also serve to facilitate or to activate these extrasensory perceptions. Unfortunately it is not clear why this should be the case, except in the realm of speculation.

The dominant model in OBE studies, by far, is the psychological one (for reviews see Alvarado, 1992; Blackmore, 1982a; and Irwin, 1985a). In fact, most modern OBE research has investigated the assumptions of the psychological model in one way or the other (Alvarado, 1989b, 1992). The reasons for this are many. To a great extent psychology and science at large are reticent about or downright hostile to the notion that anomalous phenomena may have paranormal explanations in the sense of requiring the acceptance of forms of communication presently not accepted by science, such as extrasensory perception. The fact that little evidence exists to support the projection model, coupled with the inherent difficulties of testing the model scientifically, complicates its acceptance by researchers. In contrast, the psychological model is far more amenable to systematic investigation. The model also serves to connect the anomaly of an OBE to the wider investigative concerns of those who study both normal and pathological perceptual and cognitive functioning.

The psychological model is composed of a variety of notions, all of which postulate that the OBE is an imaginal or hallucinatory experience of one sort or another. For example, some have claimed that the OBE is a "creation of the imagination" (Osty, 1930, p. 197), and may be indicative of "hallucinatory manifestations of ideas that the subject has during the waking state" (Bret, 1939, p. 164). In addition, other authors have assumed that OBEs are related to, or explained by, such concepts as hallucinatory dramatizations of conflict and transference dynamics (Medlicott, 1958), dramatizations

of the fear of death (Fodor, 1959, p. 175), distortions of the body image (Hebb, 1960), facility for the production of vivid visual imagery (Burt, 1968, p. 80), ego regression in response to a death threat (Noyes, 1972), ego-splitting defenses designed to cope with the loss of love (Reed, 1974), and the re-experiencing of birth (Grof, 1975). OBEs that seem to contain veridical information have been explained by some as hallucinations of being out of the body coupled with apparent ESP (e.g., Capel, 1978; Eastman, 1962; Tyrrell, 1942).

Other more elaborate explanations have been presented. For example, Ehrenwald (1974) has suggested that the OBE is an altered state of consciousness created by the mind to deny or defy death. That is, the experience is a defense mechanism with which the person challenges the possibility of death. As such, Ehrenwald has argued, the OBE is part of the ego's quest for immortality because its occurrence "attempts to assert the reality and autonomous existence of the 'soul' " (Ehrenwald, 1974, p. 233). More recently Ehrenwald (1981) modified his ideas somewhat by saying that the OBE's function may in fact signal to the dying individual that the body is alive by producing a vision of it from the outside, rather than affirming the existence of a soul. When Smith and Irwin (1981) attempted to put Ehrenwald's notion to test, however, no evidence was found to support it.

The most clearly argued psychological models are discussed here. I will discuss briefly two of them and will then present more detail on the one I will focus in most of this thesis.

The first one of these is Palmer's (1978b) model. Palmer has suggested that the ego may experience changes of body image interpreted to be threats to individual identity and that, as a compensation, or as a defense, the human mind produces an OBE. When

circumstances occur in which proprioceptive sensations are diminished (e.g., drugs, stress, sensory deprivation) an individual's sense of self may be threatened. To compensate, the experiencer creates the OBE as a reassurance that existence may continue independently of the physical body. According to Palmer, the OBE is only one of several other ways in which the mind may reestablish identity. Other methods may include fainting or having lucid dreams. The OBE is an attempt to prevent the threat to individual identity from reaching consciousness and causing anxiety. The hypnagogic state is considered to be important in this model because of the changes in body image reported during this state. Although some scientific evidence supports Palmer's model in that induced OBEs have been shown to be related to the hypnagogic state in laboratory contexts (Palmer, 1978a; Palmer & Lieberman, 1975; Palmer & Vassar, 1974), findings that relate a predisposition toward hypnagogic imagery to OBEs have not been consistent (see Chapter 6 of this thesis).

Another important model was that proposed by Irwin (1985a, pp. 307-323). In Irwin's view, the sensation of being out of the body (and other OBE features) may be explained by an interaction between absorption or attentional factors and the process of losing contact with bodily sensations, which Irwin calls the *asomatic factor*. When attention is directed away from bodily sensations (somatic and exteroceptive), bodily sensations are attenuated and, thus, the feeling of being out of the body may occur. Irwin has hypothesized that there is a "transformation of the abstract, non-verbal idea of disembodied consciousness into a passive, generalized somaesthetic image of a static floating self. Thus being out of touch with bodily processes inspires both the preconscious notion of the exteriorized state and the conscious mental representation of this state as a passive somaesthetic image" (Irwin, 1985a, p. 310). As this occurs, cross-

modal perceptual processes or synesthesia (basically the experience of perceiving a sensory modality while receiving stimuli in a different modality, such as hearing sound or tasting colors or shapes), may define the content of the experience by changing the modality or form of the original somaesthetic image into one arising from visual and kinesthetic perceptions, for example. Irwin's ideas have received support from studies that have related absorption and visual-spatial abilities to the OBE (for a review see Irwin, 1985a). In addition, some evidence exists that synesthesia-like items from Tellegen's Absorption Scale are positively related to OBEs (Claridge & McCreery, 1995; Irwin, 1985a, pp. 317). Although one of Irwin's graduate students, in an unpublished study, did not find that OB-experiencers were more susceptible to synesthesia experiences during a laboratory task, 45% of the participants did report OB-like sensations during the synesthetic task consisting of associations between tastes and sounds (Irwin, 1985a, pp. 319-320). Irwin commented: "The people who reported OB-like sensations during the experiment showed a strong trend toward having had comparatively frequent and intense synesthetic experiences during their life" (Irwin, 1985a, p. 320).

Another psychological model was proposed by Blackmore (1984b). I will summarize her model in more detail than I summarized the models of Palmer and Irwin because in some of the studies presented in this thesis I am attempting to test Blackmore's ideas. She has suggested that the OBE represents a model of reality constructed by the cognitive system which draws on imagination and memory whenever there is a break with the normal model of reality based on sensory-input. Blackmore puts it this way:

People are self-modeling systems. Indeed, one of the main tasks of the brain is to construct models of ourselves in our environment. These include the temporary models that are built in perception, as well



as long-term models that are built up in memory over a lifetime. And of course each interacts with the other.

Perception is a model-building process that uses information from memory and the constructive powers of imagination to provide workable models of a complex and rapidly changing world. It is essential to realize, as psychologists have long been realizing, that little about the outside world is “given” or obvious. All the incoming information has to be transformed, analyzed, and used to construct models of what is “out there.” Models are constructed at many different levels, from the primitive models in the periphery to the more complex, integrated central models. The latter contribute to memory, both in the remembering of specific events and in the building-up of generalized models of the world, or cognitive maps.

The same can be said of our perception of self. We have long-term models of the kind of persons we see ourselves to be (self-image) and what our bodies are like (body image), and we have a constantly changing model of our own bodies (also referred to as the body image). For the coordination of movements and perception, it is obviously essential that we have such an effective and rapidly updated model of our own body. This is built up from somatosensory information, visual, and other sensory input and memory (Blackmore, 1984b, p. 202).

The models Blackmore describes vary in that some are more stable than others. Some depend more on internal processes, while others are based mainly on sensory input. However, the models may involve an intermixing of sensory input and such internal resources as memory.

One central part of Blackmore’s notion is the idea that, at any given moment, only one model is used to represent reality, the one selected by the cognitive system. Blackmore (1984b) explains:

One model, the one derived largely from sensory input, is relatively complex, stable, and coherent, as compared with any of the others. It is constantly fed by new input that is either consistent with the model or can be made so with relatively little difficulty. It also behaves in ways that we have learned to associate with reality . . . . If we have any doubt about which model should be “real,” we need only attend to sensory input, and more detail will confirm and extend the input-based model but not the others (p. 205).

The criteria for the selection of models is not specified except for mentioning stability as an important factor. That is, Blackmore assumes that the most stable model is selected over the less stable one to provide a representation of the external world. But stability may change from time to time, causing errors or discrepancies, which in turn may lead to experiencing things that seem strange, unusual or extraordinary. As Blackmore (1984b) writes:

These [oddities] may be . . . like briefly thinking I see my cat asleep before I realize that it is only a pile of papers. Or they may be more severe and reach the extent of being hallucinations. At the extreme, the higher level models may lose touch entirely with the input and cease to be an effective model of reality (p. 207).

If the model (such as an OBE) is based mainly on internal factors like memory, there may be important differences between it and models based mainly (but not necessarily exclusively) on sensory input. This means that during an experience such as an OBE, there may be a sense of realism, but the experience itself may not necessarily correspond to the physical world all the time. An effort may be made to achieve a correspondence with the physical world but omissions or additions may be detected which are inconsistent with the idea that the model is completely based on sensory input.

Still, sensory input may be incorporated as well. In Blackmore's (1984b) words:

If there is just a little sensory input, some of this may even be incorporated and help to stabilize the erroneous model . . . The model thus created may be good enough to be considered as reality by the system . . . So, just like the normal input-driven model, it becomes "reality" (p. 210).

When an OBE occurs, it may be because the OBE model is the best alternative to or may substitute for the sensory-input-based model, which has been disrupted in some way. This disruption may take place due to a variety of such factors as closeness

to death, illness, falling asleep, or feeling extreme fear. As for voluntary or induced OBEs, Blackmore has argued that the individual needs more than a mere motivation to go out of his or her body. It is necessary to cause a change from the sensory input-based model to an imaginal one. In her view: "Relaxation and immobility may reduce somatosensory input; good imagery control helps to build an alternative viewpoint; and concentration helps one to keep attending to that rather than flipping back to input" (Blackmore, 1984b, p. 211).

Blackmore believes that many of the reported features of the OBE (to be discussed further in the next chapter of this thesis) are consistent with her theoretical concepts. Among these are: errors of omission and commission, seeming to move through solid objects, and manipulation of the surroundings through thought. In attempting to explain why the OBE is generally experienced as a discrete state, Blackmore (1984b) has argued:

According to this theory [OBEs are experienced as discrete states] because intermediate states are unstable. If the OB model of reality has a viewpoint very different from normal, it is unlikely to shift back to input control and is therefore highly stable as long as the conditions allow. On the other hand, if the viewpoint is only slightly away from normal, there is a good chance of its getting close enough to fit with sensory input and so to shift back. Such intermediate states are therefore highly unstable, and it is this which produces the apparent discreteness of the OBE (p. 211).

If at some point during the OBE conditions change and the sensory input model returns, the cognitive system will prefer the non-OBE model. The OBE will end or will be modified in some way and the individual will find him/herself back in the usual viewpoint. As Blackmore points out, this happens commonly with OBEs.

Blackmore has proposed some ways to test her model, conducting some

research herself. The support that has been gathered may be summarized as follows:

1. Experiences during the OBE should be similar to experiences constructed from memory. The viewpoint of the experiencer is a case in point. It is expected that the OBE is associated with viewpoints from above the body because there is evidence showing that when people are asked to remember experiences from their past, they used a viewer-centered perspective that sometimes is above the scene recollected. In Blackmore's view her "theory predicts that people who habitually imagine things or dream in a bird's-eye view should be more likely to have OBEs" (1993, p. 180). Research done which related OBEs to the observer's point of view in dreams has supported this idea (Blackmore, 1987; Irwin, 1986).

In addition, Blackmore has predicted that those who have OBEs will show greater ability to change imagery perspective, an idea also supported by her own work (Blackmore, 1987).

2. Effects of thoughts on the OB surroundings. Blackmore believes that tasks that are easy or difficult to do in imagination should also be equally difficult or easy to perform during an OBE. In her view, an example is the turning on of electric lights: "This . . . requires a fast and detailed increase in imagery, which may explain why it is so difficult in both lucid dreams and OBEs" (Blackmore, 1984b, p. 213).

3. Imagery of OBErs. Blackmore believes that the imagery abilities of the experiencers (e.g., control of imagery) are particularly important in deliberate or voluntarily-induced OBEs. If a spontaneous OBE is induced by changes in sensory input, sufficiently strong changes of this sort may make the contribution of the experiencer's imagery abilities less important. However, in a deliberate OBE (which is not very common) the cognitive system has to bring about the change in perspective deliberately

by blocking out sensory input and constructing an imaginal model. In such conditions, Blackmore asserts, the experiencer's imagery abilities become particularly important (unless the individual is particularly efficient at blocking sensory stimuli in other ways).

In one study, Blackmore (1987) found that measurements of visual-spatial abilities were higher among persons who reported OBEs. In another study comparing spontaneous and voluntarily induced OBEs, she found that OB-experiencers who claimed to be able to induce the experience at will also exhibited a higher level of dream control skills than those experiencers for whom the OBE had occurred spontaneously (Blackmore, 1986b).

4. Ability to block out sensory input. Blackmore expected a positive relationship between OBE incidence and the ability to block out sensory input, with a stronger relationship for deliberately induced OBEs. According to Blackmore, Irwin's (1981c) report of significant positive relationships between OBEs and Tellegen's Absorption Scale is consistent with this idea. Although she does not elaborate, Blackmore (1984b) presumably means that some of the experiences covered by this scale suggest that some persons have particular abilities for selective attention, that is, focusing almost exclusively on some things and excluding others (e.g., extreme concentration while reading a book or watching a movie, and losing track of time or of the surroundings). Since Blackmore's paper was published, several other studies have replicated the association between absorption and OBEs (see my review in Chapter 6). In fact, one of the studies reported in this thesis (Chapter 5) supports the association between OBEs and absorption.

I would like to add other general predictions not discussed in particular by Blackmore, but which I consider to be consistent with her model, and which would

receive support if her ideas are valid. First, there should be significant and positive correlations between OBEs and other phenomena that presumably represent alterations of consciousness. The comments about absorption (a concept that includes experiences of alteration of consciousness as well) could be extended to include many other phenomena, such as dissociative experiences. Among the phenomena relevant here are alterations of the sense of self and orientation to reality (e.g., Cardeña & Spiegel, 1993; Ross, Joshie & Currie, 1990). As discussed in Chapter 8, there is evidence from my own studies and those of others (e.g., Richards, 1991) to link, positively, the incidence of dissociative phenomena and that of the OBE.

In addition, Blackmore has mentioned the relevance of the model to other phenomena such as mystical experiences and lucid dreams, although she does not present predictions regarding their relationship. If, as Blackmore says, all of these phenomena are different manifestations of the same process, then we should expect a positive relationship between them and OBEs. Such a relationship may indicate that a predisposition for alteration of consciousness exists in some people. It also may indicate that it is not always possible to construct an OBE per se, so an alternate model of reality is constructed, perhaps a mystical experience or a lucid dream, depending on context and circumstances (e.g., if the person is asleep or not). As mentioned in previous reviews of the literature (Alvarado, 1986a; Irwin, 1985a) and in my review in Chapter 6 of this thesis, several studies have indeed shown such positive relationships (see also Blackmore, 1982c, 1984a).

It is clear from the above review that this model has some empirical support and that it is particularly useful in guiding future research on the subject. However, it may be argued that the model is vague and lacking in details in some aspects. Among these

may be the particular influence of different circumstances surrounding the experience, lack of information on exceptions to some predictions (e.g., not all OBEs show the perspective of vision from a point above the physical body), and the lack of attempts to explain many phenomenological features of the experience. But it would be unjust to be overly critical at this initial stage because very few researchers have attempted to directly test Blackmore's notions. Only after much more research has been conducted will we be in a better position to refine or extend the model as required by the empirical evidence. It is my hope that some of the research presented in the following chapters will contribute to this process.

What, then, is the theoretical state of OBE research? We have no adequate theory to make specific predictions about the projection model nor do the findings compel one to defend such a position. The psychological models are also lacking. Especially problematic are those speculations which simply label the OBE as an example of a particular process or phenomenon such as regression in the service of the ego or hallucination without attempting to test these ideas or to relate them to other known psychological variables. It is not useful for scientists to be told merely that "something" goes out or that the experience is an imaginal one if such pronouncements are not accompanied by specific testable predictions, although there are exceptions (e.g., Morris et al., 1978). For this reason it is encouraging to see such models as those proposed by Palmer, Blackmore and Irwin in which predictions have been offered and attempts have been made to connect the experience to psychological processes in a systematic way. Although some support has been found for Blackmore's and Irwin's models, there is much replication and extension to be done. More research is urgently needed so as to increase the explanatory power of these models, or to develop better models, with

particular emphasis on the psychology and the phenomenology of the experience.

### Work for this Thesis

In this thesis I will focus on the phenomenological and psychological dimensions of the OBE as collected in five questionnaire studies using convenience samples. The first part of the thesis is concerned with the phenomenology of the experience, that is, with the features that experiencers report as occurring during their OBEs. Part of this research is frankly exploratory, other parts are attempts to test specific predictions based on previous findings reported in the literature on the subject. The second part of the thesis includes two studies which attempt to relate the OBE to such psychological variables as everyday altered states of consciousness, personality variables, dreams, and dissociative experiences. Several analyses in these studies set out to test aspects of Blackmore's (1984b) OBE model specifically. For practical reasons I decided to limit most of my analyses to Blackmore's model and not to other models such as Irwin's (1985a). But it must be recognized that there are similarities between these models and between the rest of the psychological ideas previously discussed. I felt that at this stage of OBE research Blackmore's model presented a more clear possibility of relating the OBE to other psychological experiences or variables than did the other models, although I do not want to diminish the importance of these other models and their relationship to psychology, particularly Irwin's (1985a) model.

Each part of the thesis will include literature reviews about the topics in question. Although the analyses of the data were done in the order in which the studies appear, some of them were conducted at about the same time as others (those reported in



Chapters 4 and 5), or there were overlaps between them. This was the case because my resources varied considerably during the entire period during which I was conducting research. That is, the timing of the individual research projects were somewhat constrained by opportunities for access to potential participants, and by other practical limitations.

Part 2:

Phenomenological Features of  
Out-of-Body Experiences

## II. Phenomenological Characteristics of Out-of-Body Experiences

### Introduction

One of the aspects investigated by those concerned with the study of OBEs is the inner characteristics of the experience. This includes such features as sensations of floating; traveling to distant places or to other “dimensions”; seeing one’s self in a replica of one’s physical body or with no body at all; seeing the physical body, tunnels, lights, and spiritual entities; and, more rarely, obtaining information about events happening at a distance. Studies of OBE features have uncovered many other interesting characteristics too numerous to discuss here (Alvarado, 1984; Giovetti, 1983; Green, 1968b; Osis, 1979; Poynton, 1975; Twemlow, Gabbard, & Jones, 1982). As Blackmore (1982a) says: “A great deal can be learned about the conditions under which the experiences occurred, how long they lasted, and what they were like” (p. 45). However, little *systematic* work has been conducted about the phenomenology of the experience. This includes the study of the incidence and variety of OBE features and the study of the features as a function of such variables as cognitive and personality correlates, or induction factors. In fact, most of the recent survey work conducted about the incidence and correlates of OBEs has ignored the subjective aspects of the experience (e.g., Blackmore, 1987; Irwin, 1996). In addition, most researchers have not collected descriptions of the OBEs being claimed, neither through requests for written descriptions nor through interviews. Instead, most researchers (including the author of this thesis) have correlated variables to yes and no replies to an OBE question. By not making sure respondents have understood the question, such studies remain open to the criticism that different experiences may well be mixed under the label of an OBE, thus bringing into question both findings about the

incidence of the OBE and findings about the relationship of the experience to psychological and other correlates (for a discussion along these lines see Alvarado, 1986b; Tart, 1974b).

An OBE research program sensitive to the experience's phenomenological richness is essential to a more complete understanding of the OBE because it would let us see the fine-grained picture of the experience that is lost in more general studies. This more sensitive approach would allow us to construct and test theories of OBEs, such as Irwin's (1985a) synesthetic theory. It would also eventually lead us to understand better both the constancy and dissimilarities of OBEs between and within individuals. Such an understanding would lead to a development of empirical taxonomies and typologies of the OBE, and either support the notion of an experiential continuum regarding the OBE and other analogous phenomena (at least phenomenologically, if not in terms of causal mechanisms), or else show clear distinctions between them.

Such an approach has been frequently used and valued in many fields. For example, discussions of typology in the medical literature have emphasized the usefulness of identifying an experience's essential characteristics in terms of understanding the etiology and treatment of a variety of medical conditions (Hoehne, 1980). Many of the distinctions some clinicians say exist between multiple personality disorder and schizophrenia are based on the identification and clustering of particular case characteristics (e.g., Ross, Heber, Norton, & Anderson, 1989). Other studies important for the issue of differential diagnosis have focused on the features of hallucinations (Lowe, 1973).

Examples of attention to introspection and to the phenomenology of human experience can also be found in studies of meditation (Forte, Brown, & Dysart,

1987-1988), of such hypnotic phenomena as time distortion (Bowers, 1979) and in work conducted with a variety of states of consciousness such as the psychotic experience (Bowers & Freedman, 1966), psychedelic experiences (Masters & Houston, 1966/1973), hypnagogic and hypnopompic states (Mavromatis, 1987) and dreaming (Resnick, Stickgold, Rittenhouse, & Hobson, 1994). Ronald Pekala (1991) recently published a book-length defense of this approach that includes the results of several years of research into the experiential aspects of a variety of states of consciousness. Pekala has charted different states using scales designed to measure a variety of such dimensions as positive and negative affect and vividness of visual imagery, among others. All these studies have provided useful information necessary to our understanding of the variety of features of states of consciousness and to the development of theoretical models to account for them.

In what follows I will review some of the work conducted along these lines with OBEs and will suggest some areas in need of further research. I will also consider aspects of this work conducted with near-death experiences (NDEs). As discussed briefly in the first chapter, this experience may include the sense of being out-of-the-body, but it is not defined by this feature alone (Blackmore, 1993).

## The Variety of OBE Features

### Incidence of Features

Descriptions of OBEs can be found in several OBE case collections (e.g., Crookall, 1961, 1964b, 1972, 1978; Green, 1968b; Muldoon, 1936; Muldoon & Carrington, 1951), as well as in the writings of persons who claim to have the ability to induce the experience at will or who have had many spontaneous OBEs (e.g., Fox, 1939;

Harary, 1978; Monroe, 1971; Muldoon & Carrington, 1929). Readers interested in descriptions of OBEs should consult those found in this thesis in Appendix 1. These descriptions were collected for the research project reported in Chapter 5.

Although case studies indicate that the phenomenology of the OBE is varied (Alvarado, 1984; Crookall, 1961, 1964b; Gabbard & Twemlow, 1984; Giovetti, 1983; Green, 1968b; Poynton, 1975), I have focused here on selected features of the experience for which there is enough information to discuss commonalities. The summary of the incidence of specific OBE features presented below are based mainly on a previous literature review (Alvarado, 1986b).

Some people have reported an awareness of separation and return to the body, others just seem to themselves to be out of the body or back in the body with no sensation of the transitions. Out of four studies with information about awareness of leaving the body, an average of 40% of the respondents were aware of transitions (Md = 35.5; range: 22%-67%). Although the sense of separation is what defines the experience, I have argued elsewhere that we should recognize the existence of experiences with several degrees of feelings of separation from the physical body (Alvarado, 1997). For example, Green (1968, p. 41) presented a case in which a person said that consciousness "switched back and forth between my physical body and another position a few yards away". In one of my cases a person claimed to have had "complete physical sensation in both bodies simultaneously".

Many persons see their physical body from a short distance, especially from positions above their bodies. In my previous survey of the literature I found that, on average, 62% of the experients reported this feature (N of studies = 11, Md = 60%; Range: 42%-81%).

In the experiential tradition some authors have reported the so-called “astral cord”, that is, a cord-like connection that links the physical body to the out-of-body location (e.g., Crookall, 1964b; Muldoon & Carrington, 1929). In my analysis of the literature, this feature of the OBE obtained a mean percentage of 7 (N of studies = 6; Md = 6%; Range 0%-20%). The incidence of 20% in Crookall’s study (1964b) was found to be inflated when his cases were examined in that Crookall included as “cords” not only visual reports of such a structure but also kinesthetic sensations consistent with such a claim and other cases with no mention of cords at all (Alvarado, in press; work unrelated to this thesis). After adjusting for these problems, only 11% of Crookall’s cases qualified as “cord” cases. Consequently, the mean incidence changes to 6% (while the median stays the same). It is important to note that this feature is not as common as some claim it is, a factor that underscores the importance of scientific research into the phenomenology of the OBE.

Another interesting feature is the way in which experiencers describe themselves when they find they are out of their bodies. Some experiencers see themselves in another body, usually similar to the physical body (N of studies = 10; M = 46%; Md = 49%, range: 15%-75%), and others find themselves with no body at all, existing as pure consciousness (N of studies = 6 ; M = 31%; Md = 21.5%; range: 7%-80%), or as such intermediate forms as “balls of light”, points in space, clouds, and so on (N of studies = 6; M = 29%; Md = 28%; range: 13%-47%). These forms of self perception are not necessarily discrete phenomena. Osis (1979) found that 23% of his cases reported a variation in the shape they perceived themselves to be as the experience progressed.

One of the traditional claims experiencers and researchers have used is that the OBE is more than an hallucination because of the seemingly veridical observations made

during the experience. In these cases experiencers generally claim to have traveled to a place and obtained information of events happening at that location (Alvarado, 1983; Hart, 1954). The claims for these phenomena obtain a mean of 19% (N of studies = 10; Md = 16.5%; range: 5%-40%). However, as argued elsewhere, there are reasons to distrust this particular incidence figure. In one of my studies (Alvarado, 1986a) I found that out of 33% claims of veridical observations (N of studies = 61), only three qualified as potentially veridical when a description of the phenomena was obtained. The rest did not include the acquisition of potentially verifiable information, but rather involved imagery meaningful to the experiencer.

The veridical features of the OBE have also been studied in the laboratory. In these tests a person who claims to be capable of inducing an OBE is usually asked to travel to a nearby location and obtain information from preselected targets. These experiencers are asked to report this information when they return to their bodies. There have been some isolated positive results that need to be followed up (for a review see Alvarado, 1982a).

Although this research has provided much information, there is still room for further work on the incidence of many neglected features as well as on issues such as the changing content of these experiences and the interaction of features.

Regarding the issue of specific features, we need to start tapping into generally ignored OBE features rather than focusing on such usual ones as seeing the physical body. There have been some studies in which detailed questionnaires asked for a great number of features of the experience (Gabbard & Twemlow, 1984; Giovetti, 1983; Green, 1968b; Osis, 1979). But overall, modern OBE researchers have shown a fairly limited interest in the big picture of OBE phenomenology.



We may follow Tiberi (1993) in his study of various emotions during OBEs such as serenity and fear. Experiencers usually report a variety of feelings during the OBE. In the words of one of them: “I WAS joy” (Crookall, 1972, p. 81). Others commented that their surroundings were of a “*fairy like quality*” (Crookall, 1972, p. 74) and: “Everything appears normal, but extraordinarily *real*” (Giovetti, 1983, p. 79, my translation).

Some OBEs include feelings of ineffability and the sense of oneness common in mystical experiences, a topic discussed by Crookall (1969). In one of Crookall’s cases the experiencer said: “I felt strangely linked with all the people in the world — as if their thought-consciousness belonged to me also” (Crookall, 1964b, p. 2). In one case I collected the experient wrote: “I felt merged with the space and air around me ... I saw myself as one with energy, matter, the universe .” Most studies of OBE phenomenology have ignored such powerful experiences within the OBE.

Many of the ignored features are the more exotic ones. Crookall discussed some of them in descriptive studies that touched on the experience of encountering entities that are helpful in different ways (Crookall, 1964a); on observations of both the physical body and of another body from a third point in space (Crookall, 1970); and on reports of the so-called astral cord (Crookall, 1972, pp. 113-128).

Other reported features that deserve further study include visits to other “dimensions”, such as White’s (1996) “outer space” exceptional experiences, and, of particular interest to parapsychologists, claims of ESP and of being seen as an apparition during the experience. The latter should not be limited to the OBE apparitions of presumably “regular” people sometimes reported in the psychical research literature (e.g., Hart, 1954). We also need to pay attention to the more dramatic apparitions reported by gifted “bilocators” such as the French Mother Yvonne-Aimée (Laurentin & Maheo,

1990), and the Italian Natuzza Evolo (Marinelli, 1978).

Published case collections (e.g., Crookall, 1961; Muldoon & Carrington, 1951) and occult and mystically oriented attempts to classify OBEs in various ways (e.g., Muldoon & Carrington, 1929; Vieira, 1986; Whiteman, 1986) are a source of ideas regarding the range of claimed OBE features that deserve further exploration. Unfortunately, these writings and the specific claims found in them have been ignored by most contemporary researchers on the subject.

### The Changing Content of OBEs

We must also study the way in which some features change or vary during the same experience and between the experiences of the same and of different individuals. What shapes do tunnels take? What scenes are reported in descriptions of other dimensions? Much can be said about panoramic memory (forward or backward images), cords (shape and points of connection between physical and OBE body), and perceptual distortions (mistakes, 360 degree vision). As mentioned before, some studies have found that in addition to reports of OBEs in which the experiencers see or feel themselves to be in a replica of the physical body or in no body at all, there are reports of other indeterminate forms such as balls of light or energy patterns (Rogo, 1976a). In the words of an experiencer: "I may feel myself to be a ball of light floating in space ... or simply a point of awareness that either focuses upon a particular area or merges, to varying degrees, with the surrounding environment" (Harary, 1978, p. 261). Six studies in which such reports were collected have an incidence range of 13%-47% with a mean percentage of 29 (Alvarado, 1986b).

There are also changes in the “environment” contacted. According to Crookall (1965): “Helen Brooks ... passed through a plane ‘in which everything was in semi-darkness ... before entering the astral world proper’ ... When the ‘double’ of Frank Hives ... first left his body, he passed through ‘a thick gray mist’ before entering a ‘bright light’ ...” (p. 46). Other reports start with descriptions of normal environments that change later during the experience into such “other world” imagery as heavenly and garden-like surroundings.

Another feature deserving further study is the location of consciousness during the experience. Some OBEs are not as discrete as others in the sense that a clear-cut separation of consciousness from the body does not occur. One experiencer wrote that consciousness “switched back and forth between my physical body and another position a few yards away” (Green, 1968b, p. 41). Another experiencer from my case collection emphasized “the fact of having complete physical sensation in both bodies simultaneously.” This “duality” of consciousness has been described by other experiencers, some of whom are able to talk through their physical body while finding an aspect of themselves out-of-the-body (e.g., Turvey, 1911). Among my cases I have such statements as: “The experience is one of remaining in full contact with my physical body while having my awareness far outside of my body.” Other experiencers in my case collection refer to sensations that range from the affective to the kinesthetic: “The feeling of ‘belonging’ there as a place of orientation;” “Like some of my consciousness extended to my body;” “The feeling was like being a kite tethered to the body below. There was a magnetic force field of sorts, not visible, but it could be felt.” “I was aware of still being attached to the lower part of my physical body.” Although the sense of separation is basic to our definition of the OBE, this continuum of descriptions of the relationship between

the OB consciousness and the physical body cautions us against adopting simple definitions of OBEs in terms of the discreteness of the altered state or the degree of separation. Instead it points out the need for further consideration of a continuum of states of feeling out-of-the-body and a more sensitive typology of the OBE.

In addition, the issue of location of consciousness has been discussed in terms of multiple locations. In the words of a frequent experiencer: "There are times when I am intensely aware of being at more than one location, in more than one form, simultaneously within a given experience" (Harary, 1978, p. 261). Natuzza Evolo has spoken about visits to distant places: "I saw two places at the same time, apart from the place of the physical body" (Marinelli, 1978, p. 53). A correspondent with a long history of spontaneous and induced OBEs wrote to me about a multiple body experience. In her words, on one occasion while she was trying to see a place at a distance she found herself to be in seven bodies swimming in a lake:

I was conscious in all 7 bodies and yet there was also an overall consciousness awareness. Sometimes, the point of consciousness was more focused in the lead body . . . . Each one was a replica of my physical body and swam in the water as a physical body would do . . . . As the first body came ashore . . . there was an increasingly greater share of consciousness in the body on shore. For example, the second body to unite with the first was two-sevenths or something like that, and when the third body merged, it went up to three-sevenths. The merging was gradual and seemed very natural.

The changing content of the OBE may also be studied by way of the not too

frequent instances in which it is claimed that veridical information is acquired during the experience. Although much has been written about this (for a review see Alvarado, 1983), there is still room for further systematic work to classify the forms in which the experience is reported to occur. From my reading of the literature (e.g., Crookall, 1961, 1964b), it seems that most cases are of the type in which the experiencers travel to some place where they claim they acquire information. A smaller number of cases, however, refer to other ways of obtaining information, such as learning of someone's death by "encountering" their "spirit" during the OBE. Other cases suggest the possibility that claims to obtain information about the physical world during an OBE may take such forms as impressions or insights, or seeing through walls and other matter, although many of these do not seem to be veridical. Clearly, we need more systematic examinations of these features based on the careful analysis of case reports.

### Moderating Variables of the Content of OBEs

The variety of and change in OBE features needs to be studied not only in relation to incidence or description, but also in relation to interactions with other variables. The basic question here is: Is the content of the experience moderated by other variables? Figure 1 presents a view of factors that could be studied as potentially moderating variables of OBE content. But it should be kept in mind that many of these factors may be conceptualized not only as factors influencing OBE content but also as variables that are affected by the experience and its features. The latter may be the case with beliefs, as OBE content may be a function of previous expectations and life experiences, but the experience of particular features may generate belief as well. For example, encountering other dimensions or spiritual entities could foster belief and a desire to continue having

experiences with such transcendental components which in turn may themselves shape features of future OBEs. In what follows I will review the few studies that address these issues.

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Figure 1

Possible Moderating Variables of OBE Features

Frequency of the Experience (e.g., single vs. multiple)	Particular Features (e.g., seeing tunnels)	Circumstances of Induction (e.g., stress vs. relaxation)
<b>OBE Features</b>		
Psychological Variables (e.g., absorption)	Culture and Beliefs (e.g., occult beliefs)	Practices (e.g., meditation)

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An interesting example of research along these lines is concerned with the factors or circumstances leading up to or surrounding the production of an OBE. For example, Robert Crookall (1961, 1964b) compared the characteristics of OBEs that occurred in natural (gradual, slow) versus enforced (sudden, abrupt) contexts. He claimed that natural OBEs were more positively perceived by the experiencers and had a higher frequency of characteristics such as sensations of separation and return to the body (he paid particular attention to blackouts of consciousness which he interpreted to be a transitional feature), seeing cords and/or entities, and experiencing ostensible veridical perceptions than did enforced OBEs. Unfortunately, Crookall's classifications are problematic in the sense that they are poorly defined, have little empirical support (Irwin, 1985a), and both

independent reanalyses of his data and replication attempts have failed to confirm the validity of most of his claims (Alvarado, 1981b, 1984).

Other analyses related to the circumstance in which the experience occurred were reported by Ring (1980, pp. 113-116), who found that NDEs occurring after suicide attempts did not reach the last two stages of the experience (seeing the light and entering the light) when compared to experiences that occurred during illness and accidents. However, not all of these cases featured the OBE element.

More recently Gabbard, Twemlow and Jones (1981) reported that OBEs in near-death circumstances had a higher incidence of such features as noises at the beginning of the experience, traveling through a tunnel, seeing the physical body, being aware of the presence of other "beings" and of deceased persons, and seeing brilliant lights.

Gabbard and Twemlow (1984, p. 20) reported that individuals with multiple OBEs more often reported feeling a sense of energy and vibrations, hearing noises, seeing the physical body and lights and other features than did single OB-experiencers. While Irwin (1985a, pp. 85-85) found a positive relationship between onset sensations and control over the OBE and no clear relationship between such control and terminal sensations, Alvarado (1994) found that those individuals who had sensations of leaving the body and floating over the body horizontally at the beginning of the experience also showed a tendency to report the same features on return.

Other possibilities for research include contrasts of voluntarily induced versus spontaneous OBEs, and relaxed versus stressful contexts, and comparisons of the features of OBEs occurring in different states of consciousness and at different levels of physical activity (e.g., those in which the physical body is active during the OBE in contrast to those in which the body is still). Regarding states of consciousness, we may test for

Bozzano's (1937) statement that for OBEs arising when the experiencers are going to sleep or waking up "the sense of doubling is vague, indefinite, fleeting" (p. 41, my translation). Presumably, Bozzano made this comment based on his reading of spontaneous OBE cases. I reanalyzed previously collected cases (Alvarado, 1984), for which each of seven characteristics were either present or absent. The median number of characteristics present per case was one, both for the group who had their OBEs "just before going to sleep and waking up" (N = 9) and for the group with OBEs arising from other conditions (N = 22), indicating that these groups are not notably different in regard to number of characteristics (Alvarado, 1997). To the extent that a low number of OBE characteristics reflects vagueness or fleetingness of the experience, my analyses do not support Bozzano's observation.

Sabom (1982) compared NDEs grouped according to different medical crises, and surgical (with anaesthesia) versus nonsurgical cases (no anaesthesia), but he did not find any significant difference. All of Sabom's NDEs included the OBE component.

Little has been done to replicate findings such as those of Gabbard, Twemlow, and Jones (1981). Their comparison of features of near-death versus non-near-death OBEs revealed that the first group reported a higher incidence of noises at the beginning of the experience, of passing through a tunnel, of seeing the physical body, of being aware of the presence of deceased persons and other beings, and of seeing a brilliant light. In later research, Tiberi (1993) — who does not refer to the previous paper in his report — found that the near-death condition was associated with reports of different worlds, new colors, feelings of serenity, tranquility, and peace and relaxation, among other features. I have conducted some comparisons relevant to this issue in which I predicted that there would be a higher frequency of features in OBEs occurring in near-death



circumstances as compared to those occurring in non-near-death circumstances. I compared the features of an unpublished analysis of some of Crookall's cases to the near-death cases of Sabom (1982), all of which reported OBEs. Out of five comparisons, four (80%) were significantly different and favored the near-death OBEs (see Table 3, next page). Crookall's cases were used for an unpublished analysis and were selected on the basis that they did not involve drugs and they were not near death. The cases are not only low in number but they may not be representative of OBEs in general as they were selected from those in which the experiencer was engaged in such normal activities as reading or relaxing at the point of experience onset. Nonetheless, the significant results all favor the superiority of the near-death condition in producing a higher frequency of reports of particular features of the experience. Three of the findings replicate those of Gabbard, Twemlow and Jones (1981): Like these researchers, my analyses found a higher frequency of reports of tunnels, entities, and lights in OBEs occurring during presumed near-death conditions than in those OBEs reported to have occurred during non-near-death conditions.

Results such as these may be relevant to assessing the influence of expectations of dying or of the physiological features of dying on the phenomenology of the experiences. Consequently, the usefulness of this approach is not limited to the uncovering of descriptive patterns, but it may help to develop and assess explanatory models of the experience (for a discussion of this in the context of the NDE, see Blackmore, 1993).

**Table 3**  
**Comparison of Features of Experiences in Near-Death vs. Non Near-Death Conditions**

Features	Near-death (Sabom, 1982) N = 71	Non-near Death (Crookall, 1961, 1964b) N = 31	Fisher's Exact P (1 t)	Phi Estimated
Tunnel or similar structure	24%	0%	.001	.31
Spiritual entities	49%	23%	.01	.23
Panoramic memory	6%	0%	.23	.07
Veridical observations*	46%	13%	.001	.31
Lights	25%	7%	.02	.20

\*The veridical observations in Sabom's cases refer to events occurring close to the physical body, while those in Crookall's cases refer to events far away from the body.

### Interrelationship of OBE Features

A particularly unexplored area is the relationship of OBE features to one another. Do some features depend on other features to manifest during the experience? One possible approach would be to map possible clusters of features that appear together or seem related to one another in some way. Greyson's (1983, 1985) NDE work provides methods that may be followed, such as using intercorrelations and cluster analysis

techniques. Similarly, we may follow the example set by studies of absorption (Tellegen & Atkinson, 1974), depersonalization (Noyes, Hoenk, Kuperman, & Slymen, 1977), and dissociation experiences (Ray, June, Turaj, & Lundy, 1992) and attempt to factor analyze OBE features. This approach could be particularly useful in the development of more sophisticated OBE scales and typologies of the experience. Such studies have great potential but should be done with caution in that we may limit unnecessarily the phenomenological richness of the experience by defining it or by limiting our studies to a scale cut off point that reflects only statistical tendencies. But used cautiously, this approach could help to identify dimensions of the OBE that may increase our knowledge of the variety of the experience and provide opportunities to test predictions based on wider theoretical models of altered states of consciousness, among other perspectives.

Crookall (1968a) argued that “several *experiences* ... that were described as having occurred in the release of these ‘doubles’ were also described as having occurred on their *re-entry* into the body” (p. 65). Irwin (1985a, p. 85) did not find any relationship between the presence of onset and terminal sensations. However, in a reanalysis of my OBE data (Alvarado, 1994), I found that out of 20 individuals aware of separation sensations, 75% also reported awareness of return sensations, whereas 25% did not. In an additional analysis, I focused on an OBE feature emphasized by Crookall (1964b), a horizontal position of the OB body over the physical body at the beginning and at the end of the experience. Out of 17 OBEs that started horizontally over the physical body, 76% also had the same feature before return, whereas 24% did not. These analyses are based on only a few OBE cases, but they are suggestive of interrelationships between related OBE features that deserve to be explored further.

Others in the literature have made claims deserving replication. Among these are

several of Muldoon's ideas such as lack of movement coordination and the occurrence of dual vision when the experiencer is projected close to the body (Muldoon & Carrington, 1929, pp. 77, 106), and that the place where the cord is attached depends on the position of the physical and the OB body. When the physical body faces upward, Muldoon argued, and the OB body emerges in a horizontal upwards position, the cord comes out of the physical body from the front of the head and attaches to the back of the head of the OB body. But if the physical body faces down with a subsequent OB body facing downwards, the cord will come from the back of the head of the physical body to the back of the head of the OB body (Muldoon & Carrington, 1929, p. 139). Do other experiencers who report cords make similar observations?

One of the claims made by Muldoon was that he felt shocks on his physical body when he "returned" to it at a great velocity. In recent non-thesis work Alvarado and Zingrone (1997) have found evidence supporting this claim. This study found that more people reported higher rates of shocks to the body on sudden returns to the body than when they reported gradual returns.

One may also compare the characteristics of OBEs classified by presence or absence of a particular feature. According to Irwin (1985a, p. 90), the experience of seeing the physical body is not related to other features of the OBE. Other analyses may focus on such features as tunnels, traveling to distant locations, and positive affect.

Sabom's (1982) study of NDEs suggests the existence of different types of OBEs according to presence and absence of seeing veridical events close to the body (e.g., details of resuscitation attempts). I reanalyzed his cases along these lines. Regarding the number of characteristics per case (the 9 features listed on Table 4, next page), I divided the groups according to those falling above and below the overall median of 5.5 (range:

3-9).

Table 4

Comparison of NDE Features in Cases With and Without Reports of Veridical Observations Close to the Body Studied by Sabom (1982)

Features	Veridical Observations	
	Yes (N = 33)	No (N = 38)
Sense of being dead	91%	92%
Feelings of calm and peace	100%	100%
Sense of body separation	100%	100%
Dark region or void	15%	32%*
Life review	3%	8%
Light	18%	32%
Transcendental environment	27%	63%**
Entities	27%	68%***
Return	100%	100%

\*Fisher's Exact  $p = .06$  (2t), phi estimated = .22

\*\* Fisher's Exact  $p = .004$  (2t), phi estimated = .34

\*\*\* Fisher's Exact  $p = .001$  (2t), phi estimated = .39

Of the 33 cases with veridical observations, only 9 (27%) contained at or above the median number of case characteristics. Of the 38 cases without veridical observations, 27 (71%) contained at or above the median number of case characteristics. This difference was significant ( $\chi^2(1) = 10.27, p = .003, \phi = .38$ ). However, this finding may not be telling us anything about the complexity or structure of the experience; instead, it could be only a function of the features that Sabom decided to include in his analysis. Analyses of the incidence of particular features presented in Table 4 show lower incidence of "other-world" or nonordinary features in the cases with veridical

observations than in the other cases, although statistical significance was obtained only as regard to a transcendental environment and encountering spiritual entities. This suggests that the attention necessary for those observations to take place deploys the cognitive resources presumably related to the production of the experience in relation to the physical world while neglecting other variants of the experience. It may also be an indication that there is some validity for a differential typology of OBEs that separates naturalistic experiences from supernaturalistic experiences, an idea supported by the low number of Sabom's cases combining both features.

Another aspect deserving exploration is the order of features as the experience unfolds. Crookall (1961, 1964b) has commented on stages of the experience, as has Ring (1980) in his study of NDEs. But there is need for further work, especially for cross-cultural comparisons.

### Psychological Variables and OBE Content

Another area that deserves exploration is the relationship between psychological variables and OBE features. There is a literature of various attempts to relate the OBE to cognitive and personality variables as well as to other experiences, such as lucid dreaming and dream recall. But these studies correlate such psychological variables only to the occurrence of the OBE as a unitary experience (for reviews see Alvarado, 1986b, 1988; Irwin, 1985a, pp. 197-207). There have been relatively few attempts to relate psychological measures to individual features of the OBE. Some exceptions include Irwin's findings of positive relationships between reports of OB bodies and absorption scores (Irwin, 1985a, p. 287) and recollection of dreams from an exteriorized perspective,

as opposed to a viewer-oriented one (Irwin, 1986, p. 214).

My own unsuccessful work in this area attempted to study belief in ESP in relation to the ESP components of OBEs (Alvarado, 1986a), but was unable to gather a large enough sample. In addition my research has yielded nonsignificant findings in comparisons of the level of vividness of visual imagery in relation to variables such as OBE frequency, form of self perception, and quality of visual perception (Alvarado, 1984).

The psychological study of OBE features could be extended to studies modeled on Greyson's (1992), who obtained a negative correlation between the depth of NDEs and the level of death threat. Would there be positive correlations between variables such as dissociation, hypnotic susceptibility, and fantasy proneness and the depth or overall number of OBE characteristics? Perhaps the correlations will be stronger with particular OBE features or with clusters of them, such as those which seem to define a supernaturalistic experience (e.g., seeing entities, entering a different dimension). Some of the studies reported in this dissertation are attempts to examine these factors.

Another topic deserving systematic exploration is the potential influence of expectation and belief. It has been said that "Expectations seem to influence the OBE's content and certain characteristics of the astral structures" (Irwin, 1985a, p. 139). Although some of the accounts of astral projectors may give some support to this idea it is unfortunate that no systematic studies on the subject have been conducted. There are a variety of ways to tap into the possible influence of expectation and belief, including comparing the OBEs of individuals known to have had previous knowledge about the experience (Irwin, 1985a, p. 195) and of those who have studied particular philosophies or movements, such as theosophy and spiritualism, to experiencers who have no such

knowledge or interest. Differences are often assumed by those who discuss the OBE, but to date there is no adequate empirical evidence to support meaningful conclusions on this point. Two of the studies reported in this thesis will address these issues.

In addition to survey and case collection work, perhaps the influence of expectation may also be explored in the laboratory following designs used in hypnosis research to study the influence of demand characteristics and other situational factors (de Groth, 1989).

### Age, Frequency of OBEs, and Adaptation Mechanisms

Another area that needs exploring is the possible change in OBE content in the same individual over time and with the accumulation of experiences. If the OBE is a particular model of reality created by our cognitive system (Blackmore, 1984b) then it is logical to expect some changes over time as the system gets used to generating and maintaining such a map of reality. As Blackmore (1982a) puts it, “the longer experiences or the multiple cases of adepts and frequent OBEs should be more varied than single short ones. The practiced OBEer should be able to jump about in his cognitive map, moving in every way his imagination allows” (p. 248). Rogo's (1976b, p. 77) analysis of Oliver Fox's OBEs arranged over time are consistent with this model to some extent. The same may be said of Green's (1968b) descriptive study of sensory modalities and of a later study that found a positive association between multiple experiences and the following OBE features: sense of energy, hearing noises, feeling vibrations, seeing the body, passing through objects, awareness of presence of beings, and seeing brilliant lights (Twemlow, Gabbard, & Jones, 1982).



Irwin (1985a, pp. 84, 86) did not find any relationship between age and onset and terminal OBE sensations.

Perhaps, as suggested by the case studies of Gabbard and Twemlow (1984), OBEs may be related to life situations in the sense that they serve psychological functions (e.g., are adaptation mechanisms). It would be instructive to see if the content of the OBE changes over time the same way defense mechanisms change in dissociative phenomena. Presumably disorders such as multiple personality (now known as Dissociative Identity Disorder) do not develop as such immediately, but become integrated over time as a more complicated defense mechanism of the dissociative type. Putnam (1993) argues: "The repeated use of dissociative defenses by a child, perhaps in response to a repetitive trauma such as incest, is thought to lead to a generalization of dissociative defenses to other stresses and possibly the development of a chronic dissociative disorder such as MPD [multiple personality disorder]" (p. 6). Some OBEs may show a similar pattern in the sense that the features change over time as a function of the frequency and intensity of situational factors.

### Concluding Remarks

As seen in the above discussion, there is much that needs to be done to understand the configuration of OBEs. However, although many of the ideas discussed here have been presented in terms of simple descriptions and interactions, it should be kept in mind that we should extend our studies and conceptualizations to cover the interrelationship of many variables. For example, the effect of frequency of the OBE on the experience's content may be related to age, and knowledge and expectations about the experience in

general, and about its features. In addition, one hopes that some of this future work will study the variety of OBE features in the context of testing particular models or theories to explain the experience, as Irwin (1985a, chapter 8) has done with his synesthetic model.

A research program based on these suggestions will contribute to our understanding of the nature of the OBE. Not only is this approach useful to test particular claims or theories about the experience, but such testing of models necessarily involves closer attention to the phenomenology of the OBE.

This approach will also allow us to address empirically concerns like those of Tart (1974b) who postulates that we should define an experience to be an OBE only if the experience is discrete, that is, the experient has a complete separation from the physical body. In this view, the OBE is a specific phenomenon that has no continuum or degrees of being in and out of the body, as defended by Grosso (1976). This, in turn, is related to the issue of how to define the experience. As argued elsewhere (Alvarado, 1986b, pp. 161-162; Palmer, 1974, p. 107), precise definitions of the experience and of its variety are generally extremely subjective and connected to theoretical models that prejudice the issue in question. We hope future work will combine such conceptual baggage with more empirical lines of research such as the ones described in this paper. This work could benefit from the use of standardized questionnaires and attention to qualitative descriptions of the experiences. By following such a course we will eventually be in a position to develop empirically derived typologies that will deepen our understanding of the varieties of the OBE. As a consequence, we may be in a better position to understand the relationship of the OBE to other states of consciousness and to other psychological processes. One hopes that such developments eventually will both



help experiencers to control the OBE and aid clinicians who deal with experiencers by providing information about the likely constancy and variance of OBE features. At the very least, the findings of a research program emphasizing the subjective characteristics of the OBE can do no less than to help us to get a clearer picture of the experience.

### III. Exploratory Analyses of Factors that May Affect the Content of Out-of-Body Experiences: A Reanalysis of Alvarado's (1984) Study

#### Introduction

In the previous chapter I discussed the advantages and necessity of studying systematically and in more detail the features of the OBE. I have argued that we may study variables that affect the content of the OBE. Some of these variables refer to demographic and other circumstantial aspects, while others focus on the content of the experience. That is, particular features of the OBE may moderate the phenomenological content of the experience. My interest is to explore whether the phenomenological complexity of the OBE, as measured by an index of number of features, is related to these variables. In this chapter I report on work along these lines, reanalyzing questionnaire data collected for a previous research project (Alvarado, 1984). The work must be qualified from the onset because the range of OBE features included in this study were not meant to cover the whole range of OBE phenomenology. The features were specifically selected to test for some of the ideas of Robert Crookall (1961, 1964b). As such, the questionnaire does not include several frequent features included in other questionnaires (e.g., seeing the physical body).

#### Circumstantial and Demographic Variables

As discussed in the previous chapter studies of this sort include comparisons of the incidence of OBE features in relation to death-related and non-death-related induction circumstances (Gabbard, Twemlow, & Jones, 1981). Green (1968) reported that sensations of onset OBE were more common in induced OBEs than in spontaneous ones. On the other hand, Irwin (1985a, p. 84) did not find a relationship between onset

sensations and such variables as sex, religiosity and prior knowledge of the experience.

### Predictions

Beliefs and expectations. An indirect way to test for the influence of beliefs and expectations is to compare the OBEs of people, with particular interests in or affiliations with topics related to metaphysics, occultism, spiritualism and parapsychology, to those without such interests. Assuming that beliefs and expectations resulting from these movements affect the content of the OBE, I would predict that individuals with those interests would have more complex OBEs than people without those interests. Such an effect may be mediated through beliefs, or through practices associated with those beliefs. If this is the case, we will be in a better position than we are presently to argue for the influence of interests, expectations and beliefs on the “construction” or “modification” of the OBE. In the present study some of the participants were students in a School of Consciousness studies with academic tracks focusing on transpersonal psychology, mysticism and parapsychology. It was hypothesized, then, that consciousness students would obtain a higher OBE index than students in other disciplines. I made this prediction because consciousness students in this university probably knew more about OBEs than did other students simply because their academic studies emphasized unusual phenomena. But it must be recognized that, in this study, I did not directly assess the level of beliefs or expectations of the participants.

Position of the physical body. The OBE is reported both in relaxed and in tense states and in situations in which the physical body is active and inactive (e.g., Green, 1968b). However, it may be speculated that the content, as opposed to the occurrence, of the OBE is related to the body’s physical activity. If the OBE is a state of

consciousness supported by a cognitive map that is not as frequently used as the maps of other states, as Blackmore (1984b) postulates, then it makes sense that the lower the level of physical activity the higher the OBE index. That is, it is reasonable to assume that the cognitive system may be able to use its resources more effectively and thus build a more complex OBE than it could if distractions from physical activity were present. An indirect way to test for this is to assess the reported level of physical activity of the body in relation to OBE content. One of the questions of the study we are analyzing asked if the position of the physical body of the experiencer was lying down, seated or standing. I predict that those who were lying down will obtain a higher OBE Feature Index than those who were standing during the OBE. Of course, someone who is standing up is not necessarily extremely physically active, but it is presumed that at least the level of muscle tone is greater for the person who is standing up than for the than for the person who is lying down.

Number of OBEs. Since one of the questions of the original study asked for the number of OBEs experienced by the person, it was decided to correlate this measure with the OBE feature index. Based on Blackmore's (1982a, p. 248) idea that the experienced OBEr should have more varied experiences perhaps because practice allows helps one to become skilled at manipulating the cognitive resources responsible for OBE content, I predicted that those individuals who reported more than one OBE would obtain a higher OBE Feature Index than those participants who reported single OBEs.

### Other Analyses

Sex and Age. Previous analyses conducted by Irwin (1985a) did not show any relationship between OBE phenomenology and sex or age. Irwin's work was done in

relation to the presence and absence of particular variables. I planned to examine my data by comparing the index of OBE features by the sexes, and by correlating the index to age at the time of the OBE.

### OBE Features

As argued in Chapter 2, some of the features of the OBE could interact with the rest of the phenomenology of the experience, affecting the incidence or clustering of specific features. Evidence for this has been presented in previous papers in relation to specific features, namely the incidence of shocks to the body on gradual and sudden returns (Alvarado & Zingrone, 1997), the relationship between onset and terminal sensations such as awareness of leaving the body (Alvarado, 1994), and the influence of observations of events around the body in NDEs collected by Sabom (1982; Chapter 2 of this thesis). Analyses conducted by Irwin (1985a, p. 90) on the relationship between observing the physical body and other components of OBEs were not significant. My analyses will center on the following experiences.

### Predictions

Sensation of connection with the physical body. Some individuals feel during their OBEs that they are connected to the physical body by affective and kinesthetic sensations. These sensations may modify the content of the experience if we assume that the cognitive resources utilized to create the experience are not being used fully. That is, such sensations could indicate that attentional or other processes are still focused on the physical body and this could prevent a deeper OBE. Consequently, I predicted that those experiencers who reported sensations of connection to the physical body would have less

deep experiences than those who did not report those sensations.

Quality of visual perception and of thought. Because it makes sense to expect more details in an OBE report when the person's attention and perceptual resources are at their best during the experience, I predicted positive relationships between levels of visual perception and of thinking and mental clarity and the OBE Feature Index.

Self-perception during the OBE. OBErs sometimes describe themselves during the experience as being in a body similar in some ways to the physical body, being without any body, or feeling themselves to be such indeterminate shapes as globes of light (Alvarado, 1984; Green, 1968b; Osis, 1979). Rogo (1978a) has suggested that different forms of self-perception during the experience may indicate the existence of different types of OBEs. If this is the case we may expect that the content of the experience differs in relation to self-perception mode. To test this idea, I hypothesized that a comparison of the OBE Feature Index associated with the three above mentioned OBE forms should show significant differences.

### Other Analyses

Several analyses will contrast the OBE Feature Index in subgroups of the data characterized by the presence or absence of specific OBE features. The features are listed in the Procedure section and on Table 5. I have no reasons to expect any specific patterns in these analyses, they are considered to be purely exploratory.



## Method

### Participants

The sample used in the study was a convenience sample formed of students at John F. Kennedy University in Orinda, California. The majority of the students belonged to the Graduate School of Consciousness Studies (50%). This School included tracks on mysticism, transpersonal psychology, and parapsychology. The rest of the participants belonged to programs of more conventional disciplines: Psychology (28%), General Studies (10%), Law (7%), and Management (5%). The university offers classes in the evenings, because most of its students are adults with day-time other responsibilities. The mean age of the participants at the time of their OBE was 26 ( $N = 57$ ,  $SD = 8.3$ , range: 4-43). Seventy-two percent of the students were female and 28% were male.

### Questionnaire

A 42-item questionnaire devised for this study was presented to the participants. The questionnaire focused on features of the OBE, but also asked about demographic variables and about other experiences, practices and beliefs before the OBE occurred (a copy of the questionnaire appears in Alvarado, 1981a). Most of the questions were of the multiple-choice type and some provided space for descriptions. The demographic questions and the questions about attitudes and experiences referred to the time before the OBE had occurred.

The OBE question was the one used by Palmer (1979): "Have you ever had an experience in which you felt that 'you' were located 'outside of' or 'away from' your physical body; that is, the feeling that your consciousness, mind or center of awareness

was at a different place than your physical body?" It was specified that, when in doubt, the person should answer no. In addition, in the case of participants with more than one experience, the questionnaire asked the individual to answer the questionnaire on the basis of his or her most recent OBE. The latter requirement was used to have comparable data and to increase the recollection of the experiencers assuming that their most recent OBE (in the case of multiple experiencers) was recalled in more detail than earlier ones.

### Procedure

Cases were collected by requesting them in sign-up sheets put on bulletin boards and by circulating sign-up sheets in several courses offered at the university. The sign-up sheet asked the OBE question (Palmer's [1979] question) and stated that I would contact them later through the mail by sending them a questionnaire about their experience. The questionnaire was sent with a return stamped and addressed envelope. Due to lack of funds only one mailing was done to those who replied.

The OBE Feature Index was generated from the 12 yes and no questions on features of the experience. These included: awareness of leaving or of returning to the body (two separate questions), losing consciousness leaving or returning to the body (two separate questions), feeling one had passed through a dark place, enclosure or tunnel while leaving or returning to the body (two separate questions), awareness of a connection between OB location and the physical body, hearing music, having recollections of earlier-life events, claims of having obtained information at a distance from the body, meeting deceased entities, and feeling a shock to the body on return.

## Analyses

Although the original non-thesis analyses (Alvarado, 1984) were done manually, using an assistant blind to the study's hypotheses, the analyses presented here were done using a computer statistical program, StatPac Gold version 4.5. One of the cases in the original study was dropped because several of the questions were answered incorrectly. Consequently, the final number of participants for the present analysis was 60, instead of 61 as reported in the original study (Alvarado, 1984).

Analyses were conducted using Mann-Whitney-U tests, Spearman rho correlations, and the Kruskal-Wallis one way analysis of variance. The predicted analyses were one-tailed, while the rest were analyzed with two-tail p values. Because many of the analyses were considered to be exploratory, no corrections for multiple analyses were conducted. Effect sizes were calculated from the z values of the Mann-Whitney U program using the following formula:

$$z\sqrt{1/n_1+1/n_2}$$

## Results

### OBE Feature Index and the Frequency of OBE Features

The OBE Feature Index consisted on the average of replies to 12 yes and no OBE feature questions. The mean index was 2.47 (N = 60, S.D. = 1.69, range: 0-8). Table 5 (on the next page) shows the frequency of the OBE features forming the OBE Feature Index.

Table 5  
OBE Features Used in the OBE Feature Index

OBE Feature	N*	Percentage
Awareness of sensations of going out	59	34
Lost consciousness going out	55	11
Passed through tunnel going out	52	23
Awareness of connection to physical body	57	26
Heard music	60	8
Earlier life events remembered	60	15
Veridical observations	59	31
Spiritual entities seen	60	7
Awareness of sensations of return	59	42
Lost consciousness on return	56	18
Passed through tunnel on return	55	11
Felt shock on return	55	33

\*This refers to the number of participants with usable replies to the question.

### Demographic Variables

The OBE Feature Index for male participants (N = 17, Mean Rank = 31.29, Mean = 2.59) was not significantly different from that of female participants (N = 43, Mean Rank = 30.19, Mean = 2.42),  $z = .22$ ,  $p = .82$ ,  $es = .06$ .

As seen on Table 6 (on the next page) other demographic variables were not significantly correlated to the OBE Feature Index.

Table 6  
Spearman Rank Correlations of Demographic Variables with the  
OBE Feature Index

Demographic Variables	N	$r_s$	p(2t)
Age at the time of OBE	57	-.11	.41
Annual income before OBE	59	.05	.71
Educational level before OBE	59	.04	.74
Level of religiosity before OBE	55	.06	.64

#### Quality of Visual Perception

Those reporting “clear, bright” vision (N = 21, Mean Rank = 14.81, Mean = 2.62) did not significantly differ on the OBE Feature Index from those who reported “confused, foggy” vision (N = 8, Mean Rank = 15.50, Mean = 2.63),  $z = .20$ ,  $p = .43$  (1t),  $es = .08$ .

#### Sensation of Connection with the Physical Body

The participants reporting sensations of connection with the physical body (N = 15, Mean Rank = 34.33, Mean = 3.07) obtained a higher OBE Feature Index than those that did not report sensations of connection (N = 42, Mean Rank = 27.10, Mean = 2.24). However, the difference was not statistically significant,  $z = 1.45$ ,  $p = .08$ , (1t),  $es = .44$ .

#### Belief and Expectation

Two analyses were done to test for the possible influence of beliefs and

expectation on OBE content. The participants were classified as belonging to the Consciousness Program (N = 30, Mean Rank = 27.32, Mean = 2.17), and as belonging to other programs combined (General Studies, Management, Psychology, and Law) (N = 30, Mean Rank = 33.68, Mean = 2.77). The difference was not significant,  $z = 1.41$ ,  $p = .08(1t)$ ,  $es = .36$ , and it was not in the predicted direction.

Another analyses used the 11 OBErs who had had single OBEs in order to see if the OBE Feature Index of those with previous knowledge of OBEs (N = 8, Mean Rank = 7.00, Mean = 1.75) was significantly different from those with no previous knowledge (N = 3, Mean Rank = 3.33, Mean = 1.00). The difference was not statistically significant,  $z = 1.63$ ,  $p = .10$ ,  $es = 1.10$ . Although there was a trend towards a higher OBE Feature Index in the first group, only three participants were classified into the second group.

#### Position of the Physical Body

There were no significant differences between the OBE Feature Indices of the participants who were lying down during their OBEs (N = 22, Mean Rank = 15.41, Mean = 2.31) and those who were standing (N = 6, Mean Rank = 11.17, Mean = 1.50),  $z = 1.12$ ,  $p = .13(1t)$ ,  $es = .52$ .

#### Number of OBEs

The single experiencers did not differ significantly (N = 11, Mean Rank = 29.36, Mean = 2.27) from the multiple experiencers (N = 48, Mean Rank = 30.15, Mean = 2.50) ( $z = .14$ ,  $p = .45(1t)$ ,  $es = .05$ ) on the feature index.

### Self-Perception During OBE

As seen on Table 7 the differences between the means of the OBE Feature Index and the three forms of self-perception during the OBE were not significantly different as assessed with a Kruskal-Wallis one way analysis of variance.

Table 7  
OBE Feature Index of Different Forms of OBE-Self-Perception

Self-Perception	N	OBE Feature Index Mean	Range	SD
Similar Body	15	2.67	0-5	1.58
No Body	20	1.80	0-4	0.87
Clouds, balls of light, point in space	9	3.00	0-8	2.31

Kruskal-Wallis (corrected for ties) = 2.09,  $p < .30$

### Voluntary Induction

The OBE Feature Index did not significantly differentiate between those who claimed voluntary induction of their OBE (N = 8, Mean Rank = 30.19, Mean = 2.36) and those whose OBEs were not voluntary (N = 50, Mean Rank = 29.39, Mean = 2.40),  $z = .12$ ,  $p = .90$ ,  $es = .05$ .

### Individual OBE Features

Table 8 (on the next page) shows the comparisons of yes and no replies to specific OBE features in relation to the OBE Feature Index. For each particular feature the Index

was corrected by recalculating without that feature, when relevant.

Table 8  
Item Corrected OBE Feature Index Means in Relation to Specific OBE Features

OBE Feature	Yes	N	No	N	Mann-Whitney U z	p	es
Awareness of sensations going out	32.60	20	28.67	39	.83	.41	.23
Passed through tunnel going out	33.75	12	24.33	40	1.89	.06	.62
Lost consciousness going out	25.17	6	28.35	49	.46	.65	.20
Awareness of connection to physical body	27.10	15	29.68	42	.52	.31(1t)	.16
Heard music	43.00	5	29.36	55	1.67	.09	.78
Remembered earlier life events	34.05	9	29.87	51	.66	.51	.24
Veridical observations	35.78	18	27.46	41	1.71	.09	.48
Spiritual entities seen	35.63	4	30.13	56	.61	.54	.32
Awareness of sensation returning	35.70	25	25.81	34	2.19	.03	.58
Lost consciousness on return	30.85	10	27.99	46	.50	.62	.17
Passed through tunnel on return	40.91	6	26.42	49	2.09	.04	.90
Shock felt on return	29.36	18	27.34	37	.44	.66	.13

### Summary

None of the six hypotheses obtained statistically significant results. However, those related to the position of the physical body and to sensations of connection with the body were consistent with the predictions and presented effects of medium magnitude (.52 and .44, respectively).



## Discussion

The study was conducted with a convenience sample that cannot be considered representative either of the student or of the general population. In addition, it must be remembered that the limited number of OBE features included in the OBE Feature Index cannot be considered to be representative of the whole range of OBE phenomenology because they were selected specifically to test for other hypotheses (see Alvarado, 1984). Rather, this group of features, can be described as a truncated range in terms of the rich OBE phenomenology discussed in Chapter 2.

None of the predicted analyses were significant, although some approached significance. For example, this was the case with the analysis which tested previous knowledge of OBEs, and its impact on the Feature Index, conducted with single experiencers. Unfortunately this subset included a group of only three participants. Results consistent with the prediction were also found in the analysis regarding the position of the physical body (lying down versus standing). Although one may speculate that the low sample size reduced the power of my statistical tests, it is not possible to take these trends seriously in and of themselves. They may become important later in the context of other studies, in which such non-significant results may be seen as part of a general pattern of results. The study reported in Chapter 5 of this dissertation provides an opportunity to see these results in a wider context.

It is clear, from inspecting the low correlation coefficients associated with demographic variables, that there was little in the relationship to the OBE Feature Index. Such finding is consistent with the poverty of demographic variables in general to predict OBE incidence.

Finally, there was little significance in the analyses on Table 8 about the

relationship of the OBE Feature Index to specific OBE features. The only analyses that achieved significance were those of transitional features at the end of the experience. Those persons who felt aware of sensations on return and of passing through a tunnel on return obtained higher ratings of the OBE Feature Index than those without such experiences. It is my hope that these results will be replicated in future studies.

## IV. Features of Out-of-Body Experiences in a Sample of Readers of a Popular Spanish New Age Magazine

The study reported here provided an opportunity to explore aspects of OBE phenomenology with a large sample drawn from a special group: readers of a popular New Age magazine published in Spain. This included relating an OBE Feature Index (formed from the individual OBE features) to a variety of variables such as single versus multiple experiences, experiences at will versus experiences not at will, dream, and parapsychological experiences.

It must be recognized from the beginning that the sample of this study was clearly not representative because the participants were presumably highly interested in and experienced with parapsychological experiences. In addition, it was clear from the questionnaire I used (see Appendixes 2 and 3) that the main interest of the study was OBEs, thus inflating even further the incidence of OBEs.

In what follows I will outline the predictions of the study. Most of the analyses refer to an OBE Feature Index to be described later. This is a measure of the combined presence of several OBE features in each individual who reported an OBE. In this sense I followed on some of the analyses conducted in the previous study.

### Predicted Analyses

*Single vs. Multiple OBEs.* Blackmore (1982a) has postulated that the OBEs of people who have had the experience many times would be more complex than those who have had only one OBE. She felt that this would be so because the multiple OBE experiences may have learned because of practice to manipulate their cognitive maps with greater efficiency. These effects may be reflected in the tendency to present multiple

experiences with a greater variety of features than single OBEs. In the previous study this comparison was not significant, but the sample size was low. Because it was worth exploring this hypothesis again with a larger sample, I hypothesized that multiple OBEs in the present study would obtain a higher index of features than single experiencers. A similar prediction was made using a continuous measure of frequency of experiences. That is, I predicted that a significant positive correlation would be found between the OBE Index and frequency of experiences per participants.

*Willful OBEs.* Closely related to the concept of frequency of OBEs and to Blackmore's ideas is the exploration of possible differences between those people who can induce the experience at will and those who have had it without any willful induction. As argued before, within Blackmore's (1982a, 1984b) model practice may bring changes in the experience. But there is also the possibility that those who can induce the experience have different cognitive characteristics. In view of Blackmore's ideas, I hypothesized a positive and significant correlation between a continuous measure of OBE control and the index of OBE features. Similarly, I expected to find higher OBE Feature Index scores in individuals classified as having had willful or voluntary OBEs, as compared to those who had had only spontaneous ones.

I also predicted that willful induction of OBEs would be positively related to a variety of experiences, mainly parapsychological experiences, lucid dreams and dream recall. This made sense considering, that as reviewed in Chapter 6, claims of these variables are generally positively related to OBE incidence (see also Alvarado, 1986b; and Irwin, 1985a).

*Dream and Parapsychological Experiences.* Another purpose of this research project was to study the relationship of OBE features to psychological variables. In the

past, most studies attempting to relate psychological variables to the OBE have been limited to the examination of a particular psychological variable and its relationship to the OBE as a unitary experience (for reviews see Chapter 6 of this thesis and Alvarado, 1986a, 1988; and Irwin, 1985a). That is, experiencers have been compared to non-experiencers on their scores on a particular psychological questionnaire. The issue of a correlation between OBE features and individual psychological aspects has been neglected, with the exception of work reported by Alvarado (1984) with vividness of visual imagery and by Irwin (1985a) with absorption. Provided some correlations can be established, such work will allow us to argue more effectively that the “construction” of the experience (at a cognitive level or otherwise) may be related to particular psychological variables. This, in turn, can support or refute particular OBE models, such as Irwin (1985a) has done in his examination of his synesthetic model of the OBE. Following on previous research showing significant positive relationships between dream experiences, parapsychological experiences, and OBE incidence (e.g., Kohr, 1980; Palmer, 1979b; for more detailed reviews see Alvarado, 1986b; and Irwin, 1985a, as well as my review of psychological correlates of OBEs on Chapter 6 of this thesis) I predicted positive relationships between the OBE Feature Index and frequency of dream recall, lucid dreams, and claims of parapsychological experiences. If these variables predict the incidence of the experience, they may be related to the complexity of its content as well.

Similarly, I predicted positive relationships between incidence of OBEs and dream recall, lucid dreams, and an index of parapsychological experiences to be described later. As stated before, the literature supports such associations, as be seen in Chapter 6 and in the reviews of Alvarado (1986a, 1988) and Irwin (1985a).

### Other Analyses

Although Irwin (1985a) did not find significant relationships when he explored OBE features in relation to sex and age, I believe this question should be explored further. In the previous study, using an index of OBE features, I did not find evidence of sex differences. Irwin used specific features for comparison, while I am emphasizing the OBE Feature Index. Because it is possible that a more global comparison will yield significant results, I conducted other analyses that attempted to relate the OBE Feature Index to demographic variables, mainly sex and religiosity. In addition, I explored the frequency of each OBE feature in relation to the type of experiencer: that is, those who were single OBEs and those who were multiple OBEs. All these analyses were exploratory.

### Summary of Hypotheses

The hypotheses of this study may be summarized as follows. First, in relation to the index of OBE features, I predicted:

- 1) A significantly higher OBE Feature Index for multiple experiencers than for those who reported a single OBE;
- 2) A significant positive correlation between OBE frequency and the OBE Feature Index;
- 3) A significant positive correlation between degree of claimed capacity to induce the OBE at will and the OBE Feature Index;
- 4) A significantly higher OBE index for those who claimed that capacity to have voluntary or induced OBEs than for those whose OBEs were spontaneously occurring;
- 5) A significant positive relationships of the OBE Feature Index with dream

recall, lucid dreams and parapsychological experiences.

Other secondary hypotheses were:

- 1) A significant positive relationships between degree of inducing the OBE at will and dream recall, lucid dream and parapsychological experiences;
- 2) Significant positive relationships between OBE incidence and dream recall, lucid dreams and an index of parapsychological experiences.

## Method

### Participants

The participants were readers of a Spanish popular psychic and New Age magazine published in Madrid called *Más Allá de la Ciencia*. The magazine has an international distribution, and its circulation is over 100,000 copies. Most of the readers of the magazine are from Spain, but the magazine circulates in other countries of Europe and in Latin America. Participants were self-selected on the basis of their interest in answering a questionnaire with an obvious emphasis on OBEs printed in the magazine.

Four hundred and ninety-two readers of the magazine returned completed questionnaires. Sixty-eight percent of these were women and 32% were men. Four hundred and eighty-seven participants provided information about their marital status. They reported themselves to be married (42%), single (42%), separated (7%), divorced (6%), widowed (2%), and living together (0.2%).

Out of 482 questionnaires with information on nationality, 94% were Spanish. Four percent were from Mexico and from Argentina, and the rest were from European countries or from mixed backgrounds (2%). The question about religion was answered by 398 individuals. The responses indicated that the largest group of participants were

Catholic (48%). Others indicated that they were “qualified” Catholics (3%), Christians (15%), had no religion (22%), or were of another religion (12%). In terms of religiosity (N = 459), they rated themselves as not religious (24%), slightly religious (25%), moderately religious (39%), and very religious (12%).

### Questionnaire

I sent a questionnaire in Spanish to the editors of the magazine and this was published in two facing pages with some minor editorial changes (Spanish and English language copies of the questionnaire appear on Appendixes 2 and 3). The questionnaire asked for the participant’s name and address, demographic information (8 questions), and nine other questions about dream recall, lucid dreams, precognitive dreams, waking ESP, apparitions, auras, mystical experiences, movement of objects, and out-of-body experiences, in that order. The aura and the OBE question asked for a description of the experience. The OBE question had seven sections in which details about the features of the experience were requested. The final question asked if the participant was willing to participate in future research.

The dream recall question had six options ranging from never to always (every day). The rest of the experience items had three options for reply: (a) Yes, once; (b) Yes, more than once (approximately how many?); and (c) No. Reply options were limited to conserve space in the magazine. The option that allowed the participants to estimate the frequency of the experience provided a more specific estimation for frequency analyses.

The OBE question read (translated to English from Spanish): “Have you had an experience in which you felt you were outside of or separated from your physical body, with the mental sensation of being in a different place from that of your physical body?”



The participants were also asked about the frequency of the experience, the ability to have it at will and about such OBE features as: awareness of sensations of getting out of the body, tunnels, body or no body, lights, vibrations, memory images, hearing voices, floating sensations, seeing the physical body, other dimensions, and a cord-like connection to the physical body (see Appendixes 2 and 3).

The heading of the questionnaires was provided by the editors of the magazine. It read: "Study of Psychic Experiences in Spain: Do You have Paranormal Powers or Have You Had Strange Phenomena?" The instructions of the questionnaire presented the study as one of parapsychological phenomena similar to those conducted in other countries. The collaboration of readers was solicited and anonymity was guaranteed. The readers were asked to send the questionnaires to the editorial offices of the magazine. I was mentioned in the beginning of the questionnaire as the person conducting the research project at the University of Edinburgh.

### Procedure

The questionnaire went out in a regular issue of the magazine in the Fall of 1994 and was distributed through the magazine's normal circulation procedure, that is, via newsstands and subscriptions. Respondents completed the questionnaires and mailed the pages or copies of them to the magazine's editorial offices. The editors collected the replies and mailed them to me in two groups. The first 453 arrived in the Spring of 1995 and the final 39 arrived in the Fall of 1995. Because the editorial offices collected the replies and forwarded them to me through a second party, no specific response time data was available.

An index of OBE features (the OBE Feature Index) was generated using the 15

questions about features that could be coded as present or absent. Each present feature was counted as one (1) and the sum of all present features formed the OBE Feature Index per person. The features were the following: awareness of sensations of going OB, seeing a tunnel, seeing lights, feeling vibrations, hearing music, feeling a cracking sensation on the head, seeing a cord or ray of light connecting the OB location to the physical body, seeing images of the person's life, hearing voices, seeing spiritual entities, perceiving veridical events (that is, events the person thought were happening in reality), sensations of floating, sensations of movement, seeing the physical body, and awareness of sensations of returning to the physical body.

I also created an index of parapsychological experiences, the Psi Index. This index was done in the same manner as the OBE Feature Index but with the following experiences: waking ESP, precognitive dreams, apparitions, auras, psychokinesis, and mystical experiences. These questions are reproduced in Appendixes 2 (in Spanish) and 3 (in English).

### Analyses

The data was entered into the StatPac Gold version 4.5 software program. Most of the analyses were conducted using the Mann-Whitney U Test (OBE Feature Index), and with chi-square tests (frequency analyses). I also used Spearman Rank Order Correlations and standard multiple regression. Effect sizes for the Mann-Whitney U z values were conducted with the formula presented in the previous chapter, while for the chi-square analyses I used the phi coefficient. All predicted analyses were one-tailed. Although no formal correction for the number of analyses was done, the 5% level was chosen for the predicted analyses, and the 1% level for the rest of the analyses of the

study.

## Results

### OBE Incidence

Out of 486 questionnaires with information about OBE incidence, 400 or 82% claimed to have had OBEs. There was no significant difference between the proportion of OBEs reported by men (N = 158, 83%) and women (N = 328, 82%),  $\chi^2(1, N = 486) = .01, p = .91, \phi = .01$ .

Out of those 400 who claimed the experience, 35% had it once, while 65% had it more than once. Table 9 (on the next page) shows the frequency distribution of the number of OBEs claimed by a subset of the experiencers who estimated an approximate number of OBEs (N = 278). Fifty percent of the experiencers of this subset had only one OBE. In fact, 95% of them fell below the distribution median of 12%. Evidently this subset included less multiple experiencers than the previous analysis.

There were 391 replies to the question about having OBEs at will. Most of the respondents said no to this question (63%). Others said yes in different degrees: rarely (14%), sometimes (14%), almost always (5%), and always (4%). This question had a five point scale. The mean obtained was 1.73 (N = 391; range: 1-5; SD = 1.13). Sixty-one percent of those claiming some level of wilful OBEs experienced multiple experiences, while 39% experience only one.

Table 9  
Frequency of the Out-of-Body Experience (N = 278)

OBE Frequency	Percent
1	50
2	19
3	11
4	4
5	4
6	3
7	0.4
8	0.4
10	3
12	0.4
15	1
17	0.4
20	1
30	1
35	0.4
40	0.4
50	0.4
100	1
1000	1

### OBE Features

Table 10 (on the next page) shows the frequency of the OBE features in the sample. The most frequently endorsed feature was floating sensations (75%). This was followed by sensations of movement (51%), surroundings similar to usual ones (49%), seeing the physical body (45%), and sensations of return (43%) and of leaving the body (42%).

Table 10  
Features of Out-of-Body Experience

Feature	N	Percent
Sensation of going out	375	
Yes		42
No, found myself outside		40
No, do not remember		18
Saw tunnel	372	
Yes, going out		11
Yes, returning		3
Yes, both leaving and returning		0.3
Yes, other moments		9
Self-perception	331	
Another body		39
No body		23
Clouds, fog, balls		10
Other		22
No recollection		6
Saw lights	395	30
Felt vibrations	395	23
Heard music	396	15
Felt/heard cracking in head	395	9
Cord or ray of light between self and physical body	396	11
Saw images about events or actions in life	396	12

(Continues on the next page)

Table 10 (continued)

Feature	N	Percent
Heard voices	396	28
Saw spiritual entities	396	29
Perceived veridical events	395	15
Floating sensations	396	75
Sensations of movement	396	51
Saw physical body	396	45
Surroundings	302	
Similar to usual		49
Like a different dimension		34
Other		17
Sensation of return	382	
Yes		43
No, suddenly back		40
No, do not remember		17

#### Descriptive Information of OBE Feature Index and Psi Index

The mean OBE Feature Index, or the average of replies to 15 yes and no OBE feature questions, was 4.38 (N = 400; range: 0-14; SD = 2.73). There were no significant differences between the OBE Feature indices of male (N = 159, Mean = 3.67, Mean Rank = 252.94) and female participants (N = 333, Mean = 3.53, Mean Rank = 243.90), as assessed with the Mann-Whitney U test ( $z = .59, p = .56, es = .06$ ). The correlation between the index and level of religiosity (measured on a four-point scale) was not also significant ( $r_{s[457]} = .05, p = .31$ ).

The mean Psi Index, or the average replies to five yes and no questions about parapsychological experiences, was 3.83 (N = 492, range 0-6, SD = 1.46). There were no significant differences in the index measures of male (N = 159, Mean = 3.68, Mean Rank = 233.57) as compared to female participants (N = 333, Mean = 3.90, Mean Rank = 252.67), as assessed with the Mann-Whitney U test ( $z = 1.39$ ,  $p = .16$ ,  $es = .13$ ). However, a correlational analysis between the Psi Index and religiosity was significant ( $r_s [457] = .15$ ,  $p = .001$ ).

### OBE Feature Index, Frequency and Willfulness of OBEs

As seen on Table 11 the OBE Feature Index correlated significantly and positively with OBE frequency, OBEs at will, lucid dreams, dream recall, and with the Psi Index (an index of parapsychological experiences).

Table 11

OBE Feature Index in Relation to OBE Frequency, OBE at Will, Dreams, and Parapsychological Experiences

Variable	N	$r_s$	p(1t)
OBE Frequency	364	.70	.00000
OBEs at Will*	391	.38	.00000
Lucid Dreams	254	.21	.01
Dream Recall	482	.12	.01
Psi Index	492	.36	.00000

\*To control for the effect of OBE frequency the same analysis was performed using only single experiencers. The magnitude of the results was similar to that of the first analysis,  $r_s (133) = .34$ ,  $p = .0001$ .

The relationship of the OBE Feature Index to the number of OBEs and to wilful OBEs was also examined. The indices of willfully induced versus non-willfully induced OBEs were compared as were the indices of individuals with single versus multiple OBEs, using the Mann-Whitney U test. Single OBE-experiencers (N = 139, Mean = 3.43, Mean Rank = 161.44) obtained a lower feature index than did multiple experiencers (N = 261, Mean = 4.85, Mean Rank = 221.30). This difference was significant ( $z = 4.93$ ,  $p = .0000004$ ,  $1t, es = .52$ ). Experiencers who claimed to have had OBEs at will (N = 144, Mean = 5.42, Mean Rank = 232.39) obtained a higher index than those experiencers who could not have OBEs at will (N = 247, Mean = 3.82, Mean Rank = 174.79). This difference was also significant ( $z = 4.86$ ,  $p = .000001$ ,  $1t, es = .51$ ). In a comparison of extremes, those who said they could always have OBEs at will (N = 16, Mean = 8.38, Mean Rank = 224.91) obtained a higher OBE Index than those who said that they could never have OBEs at will (N = 247, Mean = 3.82, Mean Rank = 125.98). Again, the difference was significant ( $z = 5.04$ ,  $p = .000001$ ,  $es = 1.30$ ).

Since most of those that had wilful OBEs were also multiple experiencers, I conducted an analysis to control for this possible confound. In this analysis I used only those participants with single OBE frequency. Those that had wilful OBEs (N = 20, Mean Rank = 70.40, Mean = 3.60) were not significantly higher in the OBE Feature Index than the participants that did not have wilful experiences (N = 113, Mean Rank = 66.40, Mean = 3.48),  $z = .43$ ,  $p = .67$  (2t),  $es = .11$ . The difference in magnitude in the uncorrected and corrected analyses (with effect sizes of .51 and .11) suggests that OBE frequency may be responsible for the significant relationship. However, when the same analysis was done for the correlation between wilfulness and the feature index (see Table 11) the magnitude of the results diminished only by four decimal points.



One can surmise from Table 11 that the Psi Index is a better predictor of the OBE Feature Index than dream recall or lucid dreams. This was confirmed by a standard multiple regression in which the OBE Feature Index was the dependent variable and dream recall, lucid dreams, and the Psi Index were the independent variables (Table 12). As seen on the table, the regression was significant, predicting 15% of the variance. The Psi Index accounted for more unique variance than did the dream variables.

Table 12

Standard Multiple Regression of Dreams and  
Psi Index as Predictors of the OBE Index

Variables	Coefficient	Beta	p	sr <sup>2</sup> unique
Dream Recall	-.0112	-.0048	.94	
Lucid Dreams	.0079	.1879	.002	.03
Psi Index	.6244	.3396	.0000	.11

Intercept = .8921

$R^2 = .16$ , Adjusted  $R^2 = .15$ ,  $R = .40$ ,  $F(3, 245) = 15.95$ ,  $p < .00001$

To assess the individual contributions as predictors of the OBE Feature Index of the individual parapsychological experiences of which the Psi Index was composed, another standard multiple regression was conducted with the OBE Feature Index as the dependent variable and the following as independent variables: waking ESP, precognitive dreams, apparitions, auras, psychokinesis, and mystical experiences. As can be seen on Table 13 (on the next page) the regression was significant, predicting 17% of the variance. Only waking ESP and aura experiences were independently significant

predictors of the OBE feature Index.

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Table 13  
Standard Multiple Regression of Parapsychological Experiences  
as Predictors of the OBE Index

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Variables	Coefficient	Beta	p	sr <sup>2</sup> unique
Precognitive Dreams	.0242	.0796	.54	
Waking ESP	.1446	.5558	.05	.02
Apparitions	.0111	.2071	.10	
Auras	-.1098	-.5944	.01	.04
Mystical Experiences	-.0052	-.1379	.45	
Psychokinesis	.0900	.3126	.08	

Intercept = 2.39

$R^2 = .20$ , Adjusted  $R^2 = .17$ ,  $R = .45$ ,  $F(6, 157) = 6.56$ ,  $p < .00001$

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#### Other Analyses of OBE Features

A comparison of the frequency of specific OBE features in relation to single and multiple (more than one) OBEs showed that multiple experiences were associated with higher proportions of features in 14 of the 15 comparisons (see Table 14, on the next page). However, only six of these comparisons were significant at the .01 level or less. The features in question were veridical perceptions, sensations of movement, seeing spiritual entities, hearing voices and music (1 each), and feeling or hearing cracking sensations in the head.

Table 14  
Comparison of OBE Features in Single and Multiple Experiencers

Feature	Single%	N	Multiple%	N	$\chi^2(1)$	p	phi
Sensation going out	39	131	44	241	.57	.45	.04
Saw tunnel	21	127	24	242	.14	.71	.02
Saw lights	22	132	34	260	5.90	.02	.12
Felt vibrations	16	132	27	260	5.59	.02	.12
Heard music	8	133	19	260	7.16	.01	.14
Felt/heard cracking in head	4	133	11	259	6.14	.01	.13
Cord or ray of light between self and physical body	8	133	14	260	3.06	.08	.09
Saw images about events or actions in life	11	133	14	260	.69	.40	.04
Heard voices	17	133	33	260	10.94	.001	.17
Saw spiritual entities	19	133	35	260	10.64	.001	.16
Perceived veridical events	4	133	21	259	20.70	<.001	.23

(Continues on next page)

(Table 14 continued)

Feature	Single%	N	Multiple%	N	$\chi^2(1)$	p	phi
Floating sensations	71	133	77	260	1.42	.23	.06
Sensations of movement	38	133	58	260	13.18	.0003	.18
Saw physical body	46	133	44	260	.15	.70	.02
Sensation of return	38	129	46	250	1.71	.19	.07

### OBEs, Dreams, and Parapsychological Experiences

As can be seen on Table 15 (on the next page), the incidence of dream and parapsychological experiences was high, when compared to the incidence of studies conducted by other researchers in different countries.

The frequency of dream recall was measured by a 6-point scale. The results of 482 respondents were as follows: Always (21%), frequently (44%), occasionally (17%), sometimes (13%), rarely (6%), and never (0%). The answers to the dream recall question obtained a mean of 4.61 (N = 482, range 2-6, SD = 1.12).

Mean dream recall of persons who claimed OBEs (N = 396, Mean = 4.59, Mean Rank = 236.17) was not significantly different from that of the participants who did not claim OBEs (N = 80, Mean = 4.72, Mean Rank = 250.04,  $z = .82$ ,  $p = .21$ ,  $t$  test = .10). Comparisons of the incidence of OBEs to lucid dreams and parapsychological experiences obtained positive relationships, as seen on Table 16 (on page 87).

Table 15  
Incidence (%) of Dream and Parapsychological Experiences

Variable	Current Study N = 492	Palmer (1979) N=354 USA	Kohr (1980) N=406 USA	Usha & Pasricha (1989a) N=328 India	Zangari & Machado (1996) N=181 Brazil
OBE	82	14	50	13	31
Waking ESP	73	38	63	29	47
Dream ESP	78	36	53	39	64
Apparitions	83	17	54	14	62
Auras	46	5	47	--	--
PK	36	8	14	--	17
Mystical Experiences	70	28	72	14	--
Lucid Dreams	89	56	70	48	--

To explore the value of the dream and parapsychological experiences as predictors of OBE group membership, that is, to test which variables predicted those who said “yes” to the OBE question and those who did not, I performed a probit regression analysis. As can be seen on Table 17 (on page 88), the regression was significant. In this analysis the dream experiences were better predictors of OBE group than the *individual* parapsychological experiences (not the Psi Index).

Table 16  
Incidence of Lucid Dreams and Parapsychological Experience  
in Relation to OBEs

<u>Variable</u>	<u>OBEs%</u>	<u>N</u>	<u>No OBEs</u> <u>%</u>	<u>N</u>	<u><math>\chi^2(1)</math></u>	<u>p</u>	<u>phi</u>
Waking ESP	75	393	63	86	5.01	.03	.10
Precognitive Dreams	79	398	72	85	1.52	.22	.06
Apparitions	85	396	76	86	3.70	.05	.09
Auras	49	395	34	85	5.34	.02	.11
PK	38	395	29	85	1.75	.19	.06
Mystical Experiences	74	397	55	85	10.67	.001	.15
Lucid Dreams	91	396	81	86	6.13	.01	.11

### Discussion

It is clear that the sample used in this study cannot be considered representative of the general population because all the participants were readers of a magazine devoted to parapsychological topics and to other claims of the paranormal. It is precisely these characteristics which explain the high incidence of OBEs in this study (82%). Many of the readers follow the magazine because they have had parapsychological experiences and, as a consequence, have a high degree of interest in the topic. In other words, I

Table 17

Probit Regression of Dream and Parapsychological Experiences  
as Predictors of OBE Group Membership

<u>Variables</u>	<u>Coefficient</u>	<u>Standard Error</u>	<u>T-Ratio</u>	<u>p</u>
Dream Recall	-.27699	.12502	-2.21549	.03
Lucid Dreams	.15694	.05769	2.72041	.01
Precognitive Dreams	-.00336	.03895	-.08614	.93
Waking ESP	.01324	.06114	.21655	.83
Apparitions	.02935	.05856	.50130	.62
Auras	-.11215	.11370	-.98632	.32
Mystical Experiences	.35503	.26401	1.34474	.18
PK	.24686	.21226	1.16303	.24

$$\chi^2(8) = 24.99, p = .002; \text{Log of Likelihood Function} = -54.34$$

believe I have tapped into a self-selected group of extremely high incidence of OBEs and parapsychological experiences in general (as can be seen on Table 15). In addition, and as mentioned before, the structure of the questionnaire made it clear that my main interest was the OBE. That is because, although the OBE question appeared at the end of the questionnaire, no other question had so many sub-questions as this one. This emphasis on the OBE probably inflated OBE incidence because clear demand characteristics existed in the questionnaire, indicating to the participants that the OBE was the main interest of the researcher. Those who had OBEs were likely more motivated to answer the questionnaire as opposed to those who did not have the experience.

The high incidence of OBEs in this study (82%) is only lower than the results of studies with members of the Isneg tribe of a remote rural community in the Philippines (95%, Murray, 1983), and with high fantasy-prone individuals in the United States (88%, Wilson & Barber, 1983). Even special groups designed for persons with special interests in parapsychological phenomena have had lower incidences. For example, this was so in the case of the members of the Churches' Fellowship for Psychical and Spiritual Studies in England (51%, Banks, 1962) and in members of the Association for Research and Enlightenment in the United States (50%, Kohr, 1980; 59%, Richards, 1988; 66%, Richards, 1991, this study divided the incidence of OBEs into induced and spontaneous experiences; the percentage reported here is the one on spontaneous OBEs).

Another way to assess the results of the present study is by comparing the frequency of OBE incidence and of particular OBE features to that of other studies. Similar to other studies (see Chapter 1 and Alvarado, 1986b) the present one found that multiple OBEs claims were more frequent than single OBEs claims. In this sense the present study was comparable to previous findings.

The frequency of some OBE features does not seem to be atypical seen in the light of previous studies. Because OBE incidence was so high, one might have expected similarly high incidence of specific OBE features, thus indicating that the sample was indeed very different from the samples in other studies in terms of the content of the experience. In Chapter 2, I summarized the proportion of OBE features of previous studies by calculating their mean percentage across studies which asked similar questions. Nine of these analyses were comparable with those of the present study. These are, with the present study preceding the mean percentage of the previous studies' features, and this followed by the number of studies averaged: Sensation of going out



(42%/31%, N = 4), self-perception as another body (39%/46%, N = 10), self-perception as no body (23%/31%, N = 6), self-perception as clouds, fog, ball of light (10%/29%, N = 6), cord connection (11%/6%, N = 6), saw spiritual entities (29%/25%, N = 5), perceived veridical events (15%/19%, N = 10), saw physical body (45%/62%, N = 11), and sensations of return (43%/56%, N = 3).

The comparison of these few features indicates that the present study was higher than the averaged studies in three of the nine comparisons. The differences in the three comparisons do not seem unreasonable, considering the ranges of incidence overall.

To conduct other comparisons it is necessary to focus on specific studies. In the present study 15% of the sample claimed to have heard music, as compared to 8% of the previous study (Chapter 3) and to 4% of Twemlow et al.'s (1982, recalculated to reflect percentage of individuals with OBEs) study. Twenty-three percent felt vibrations in the body, as opposed to 12% of Blackmore's (1984a) sample in instances just before the OBE. Images of one's life were reported in about the same proportion in the present (12%) and in the previous study (15%). The places in which the person found herself to be once "out" were described as similar to the usual one in 49% of the cases, and like a different dimension in 34%. In Poynton's (1975) study "usual surroundings" were also more frequent than "different surroundings" (82% and 4%), but the proportion of cases of different environments was much lower than that of the present study. Blackmore (1984a) reported that 12% of her sample claimed to enter another world. Finally, the incidence of tunnels encountered on going out of the body and on returning was 11% and 3%. In the previous study, such experiences obtained percentages of 23% and 11%, respectively.

Regardless of how representative the OBE features are it is interesting to note

some of the most frequent reports. Floating sensations (75%) were very common, as were such features as sensations of movement (51%), seeing the physical body (45%), and sensations of leaving (42%) and returning to the body (43%). On the other hand, several other features were not as common and obtained lower percentages. These included hearing music (15%), hearing or feeling cracking sensations in the head (9%), seeing a connecting cord (11%), and seeing images of past events in the lives of the experiencers (12%).

In analyses testing the hypotheses about the OBE Feature Index, most were confirmed. There were significant and positive relationships between the Feature Index and OBE frequency, a measure of OBE at will, the index of parapsychological experiences, and the frequency of lucid dreams dream recall. In other words, the higher the OBE Feature Index, the higher the claims of the other experiences. Although these findings confirm the predictions, it is not immediately clear why this should be so. It is possible that participants who show a tendency to endorse a large number of experiences did so because of an acquiescent set response and not because they believe they have actually had the experiences. There is no way to support or disconfirm this possible interpretation in this sample. However, the features of the OBE as reported in the present study are not, in general, so different (with some exceptions) from those obtained in other studies. This consistency may be interpreted as an element in favor of accurate measurement unless one is willing to argue that the other studies' results can also be explained in terms of response biases. In addition, it is not clear how such an acquiescent response set could explain the correlation of different scales, one based on yes and no replies (the OBE Feature Index) and others based on frequency information (e.g., the scale of OBE at will).

On the other hand, the results seem consistent with Blackmore's (1982a, 1984b) theoretical model of the OBE which assumes that practice in the changing of cognitive maps should affect the content of the OBE. That is, the more practice an individual has, the more diverse and complex the experience can be. Nonetheless, there may be alternative interpretations. A higher number of features may not reflect more complex cognitive creations, but more attention to the details of the experience in the sense that the experienced OB-experient has developed better introspective abilities.

Similarly, it makes sense to find that the OBE Feature Index also correlated with claims of parapsychological experiences and with lucid dreams and frequency of dream recall. If these phenomena are also related to such cognitive processes as attentional processes or a facility for alteration of consciousness, a common mechanism may underlie all of these. Similarly, it makes sense to find that OBE incidence (as opposed to its features) is also related to frequency of dreams and parapsychological experiences, a finding that replicates what others have reported.

Overall, this sample presented some differences from other studies in terms of OBE incidence and in the incidence of a few of the OBE features. Nonetheless, in general the frequency of the features and the findings related to dream and parapsychological experiences were similar to those of previous studies, including some that will be discussed in later chapters of this thesis.

## V. Features of Out-of-Body Experiences in a Predominantly Scottish Sample

The study presented in the fifth chapter of this thesis provided another opportunity to explore the frequency of OBE features and their relationship to other OBE features and to psychological variables. In this chapter I follow up some of the analyses conducted in the previous two chapters and expand my explorations by presenting several new ones from a sample of 88 mainly Scottish respondents.

### Attempted Replication of Sylvan Muldoon's OBE Patterns

One of the most important issues regarding this approach is that it will allow us to go back into the occult and experiential literature and test for the claims of a variety of experiencers. This has been ignored in the literature but it is of great importance to the extent that new work may qualify, confirm or extend that which has been accepted by many over the years as dogma. In this study I will address the claims of Sylvan Muldoon. Muldoon was a well-known gifted individual who had thousands of OBEs throughout his life (for biographical information see Blackmore, 1982a; and Rogo, 1978b). His writings are among the most influential in OBE history as they speak to the experience of those who have had many OBEs. Muldoon is best known for his book, *The Projection of the Astral Body* (Muldoon & Carrington, 1929), co-authored with psychical researcher Hereward Carrington, in which Muldoon described his own OBEs in detail. Even to this day, the book is frequently cited as an exemplar of OBE autobiographical accounts (e.g., Alvarado & Zingrone, 1997a; Blackmore, 1982a; Irwin, 1985a; Mishlove, 1993). In later books Muldoon (1936; Muldoon & Carrington, 1951) compiled other individuals' OBEs and commented on the significance of them. He also derived some

“principles” from his many experiences (Muldoon & Carrington, 1929). For example, for Muldoon there was mental confusion and difficulty in controlling the movements of the OBE body when he felt himself to be close (within 8 feet or so) to his physical body. In addition, he claimed that feelings of shock to the physical body on return were more frequent when the return occurred suddenly than when it occurred gradually. (This particular relationship was found in a previous study by the present author [Alvarado & Zingrone, 1997a]). Because Muldoon described his experiences and derived “principles” from them in a more precise and consistent way than other individuals that have written autobiographical accounts of their OBEs (e.g., Fox, 1939; Monroe, 1971; Harary, 1978; Turvey, 1911; see also the reviews of autobiographical accounts of Blackmore, 1982a; Irwin, 1985a; and Rogo, 1978b) I used some of his descriptions and ideas to generate hypotheses to see if his experiences may be generalized to the experiences of other individuals. Consequently, in the present study I predicted: (1) more mental clarity and motor control in experiences in which the reported separation from the physical body was greater than the range specified by Muldoon, as compared to those experiences that occurred close to the body; and (2) a higher number of shocks in experiences with sudden, as compared to gradual returns.

### Near-Death and Non-Near-Death OBEs

Using this sample, I also attempted to replicate Gabbard, Twemlow and Jones’ (1981) findings, and my own (Alvarado, 1997) that OBEs which occur in near-death conditions have a higher number of reports of lights, tunnels, unusual sounds, seeing the physical body, and “spiritual entities.” In this study, “near-death” will be defined by accepting the participants’ estimation of their closeness to death. As such, this does not

necessarily entail medical closeness to death, but includes as well the perception of being close to death. I am using this definition because previous researchers whose work I am trying to replicate have used it, and also because I do not have access to the relevant medical records (nor the expertise to evaluate them) for this particular group of individuals. In addition, and as argued by Gabbard and Twemlow (1991), there is evidence that physiological or medical markers of closeness to death are not as important as the experimenter's perception that he or she is close to death. This is the case with many of the experiences reported by Noyes and Kletti (1976) in which OBEs were reported by individuals that were close to death in the sense of being at risk during a fall or about to have an accident, but that were clearly not medically close to death. Following Gabbard, Twemlow and Jones (1981), I predicted a higher frequency of the following features in near-death OBEs as compared to non-near-death ones: noises at an early stage of the experience, seeing tunnels, seeing the physical body, seeing spiritual beings, and seeing lights.

### Activity of Physical Body

Although the OBE is reported both in states of relaxation and of tension it may be speculated that the activity of the physical body is related to the intensity, or to the content of the OBE. If, as argued by Blackmore (1984b), the OBE is a version of a cognitive map created by the mind to analyze human experience in certain settings and conditions it makes sense to expect that the less bodily distractions there are (e.g., muscular activity), the higher the complexity or the depth of the experience. If this is the case, the findings would support the idea that OBE content is constructed through the cognitive resources of the body, resources that may be more readily available for an OBE

when the experiencers are not “distracted” or unfocused by bodily activity. Consequently, I predicted that OBEs which occur when a person was lying down (with little muscular activity) would have more features than would the experiences of those people who were standing up, or seated during the OBE. In addition, I expected to find a higher OBE features index with cases that occurred in relaxed conditions (e.g., lying down, during prayer or meditation) than in cases in which the physical body was active (moving around, talking, running). This follows up on similar nonsignificant analyses reported in Chapter 3 of this thesis.

### Frequency of OBEs

As discussed in the previous chapter, Blackmore (1982a) has postulated that the OBEs of people who have had the experience many times would be more complex than those who have had only one. That is, multiple OBE experiencers may have learned to manipulate their cognitive maps with greater efficiency through practice and thus be able to produce more varied experiences. In other words, one would expect the OBE of multiple experiencers to be more feature rich than those of single experiencers. Consequently, I hypothesized that multiple experiencers would obtain a higher index of features than single experiencers. This follows up on the previous two studies.

Closely related to the concept of frequency of OBEs and to Blackmore’s ideas is the exploration of possible differences between those people who can induce the experience at will and those who have had their OBE without any willful induction. As argued before, within Blackmore’s (1982a, 1984b) model, practice may bring changes in the experience. But there is also the possibility that those who can induce the experience have different cognitive characteristics at the outset.

### OBE Features and Psychological Variables

Another purpose of this research project is to study the relationship of OBE features to psychological variables. In the past most studies attempting to relate psychological variables to the OBE have been limited to the examination of a particular psychological variable and its relationship to the OBE as a unitary experience (for reviews see Alvarado, 1986b, 1988; and Irwin, 1985a). That is, experiencers' scores on a particular psychological questionnaire have been compared to those of non-experiencers. The possible correlation of specific OBE features and psychological aspects of the individual has been neglected, with the exception of work reported by Alvarado (1984) on vividness of visual imagery and OBEs and by Irwin (1985a) on absorption. Provided some correlations can be established, the importance of this work is that, it affords us a better position from which to argue that the "construction" of the experience (at a cognitive level or otherwise) is related to or dependent on particular psychological variables. Such research may support particular OBE models. An example of this is Irwin's (1985a) work with his synesthetic OBE model. To bring the examination to this more fine-grain level, I will test the following.

*Previous knowledge about OBEs.* If we assume that previous knowledge of OBEs can affect the content of the experience we can postulate that there will be a positive correlation between the level of OBE knowledge before the experience being reported and the features index (the number of the feature questions that are answered "yes"). Confirmation of this hypothesis would suggest that an experiencer's expectations and knowledge can shape the content of the OBE.

A planned analysis that is similar to the previous one relates to location where the call for cases appeared. Some of the venues were parapsychological journals or



newsletters, while others were conventional newspapers. I wondered if the complexity of the cases reported, as measured by the OBE features index, and by the presence of certain individual items, would be higher in the cases drawn from parapsychology-related sources than those which were recruited through the newspapers.

*Absorption and schizotypy.* In the present study I also planned to relate questionnaire-measured psychological variables to the content of the OBE. As noted by Irwin (1985a) and by myself in Chapter 6 of this thesis and in non-thesis related work (Alvarado & Zingrone, 1997b), OBE incidence is positively related to scores on Tellegen's Absorption Scale (Tellegen, 1982, 1992, Tellegen & Atkinson, 1974). The cognitive construct of absorption had its origin in the study of everyday imaginative and hypnotic-like experiences. It was later related to attempts to find correlates of hypnotic susceptibility (Kirsch & Council, 1992). Absorption has recently been defined as a "characteristic of the individual that involves an openness to experience emotional and cognitive alterations across a variety of situations" (Roche & McConkey, 1990, p. 92).

Absorption has been related to a variety of such cognitive processes as dissociation, fantasy proneness, and openness to experience (Lynn & Rhue, 1986; Norton, Ross, & Novotny, 1990; Wild, Kuiken, & Schopflocher, 1995). Although several studies have shown moderate correlations between absorption and hypnotic susceptibility, it has also been found that the relationship between these variables is strongly affected by contextual effects. This is especially true when the absorption scale is administered before the hypnotic susceptibility test (Kirsch & Council, 1992; Roche & McConkey, 1990).

In addition, positive significant relationships have been found between absorption and mystical experiences (Mathes, 1982; Spanos & Moretti, 1988), and between

absorption and parapsychological experiences (Glicksohn, 1990; Irwin, 1985b; Nadon & Kihlstrom, 1987). All of this suggests that absorption may be intimately related to a general openness to different sorts of experiences and to alterations of consciousness. The question is, what then is the relationship between absorption and the content of the OBE?

Irwin (1985a) found that scores from Tellegen's Absorption Scale were higher for experiencers' who reported that they found themselves in a body similar to their physical body during their OBE than for those who were "without bodies." In the present study I attempted to replicate this specific finding. In addition, I tested the idea that absorption scores, well known for their relationship to OBE incidence (Alvarado & Zingrone, 1997b; Irwin, 1985a), were also related to the OBE Feature Index, to willful OBEs and to OBE frequency.

Another dimension I explored was that of schizotypy. Schizotypy may be defined as a "gradual continuum of liability to schizophrenia that may manifest itself as schizophrenic-like traits existing without signs of overt illness" (Claridge, 1988, p. 187). Such concepts have inspired a multitude of attempts to develop questionnaire measures of relevant traits, among which are physical anhedonia and hallucinatory and paranoid experiences. Perhaps one of the best known of these is the Psychoticism Scale of Eysenck's Personality Questionnaire (Eysenck & Eysenck, 1975). In recent years many other scales have been developed (e.g., Chapman, Chapman, & Raulin, 1976, 1978; Eckblad & Chapman, 1983; Jackson & Claridge, 1991; Mason, Claridge, & Jackson, 1995; Rawlings & MacFarlane, 1994).

There is now a vast literature of what is sometimes called "psychosis proneness" that highlights a variety of other differences between individuals who have differing

degrees (or risk) of schizotypal features. One line of research has shown a variety of cognitive deficits in those persons who score high on the schizotypy scales (e.g., Beech & Claridge, 1987; Lipp, Siddle, & Arnold, 1994; Miller & Chapman, 1983; Obiols, García-Domingo, Trinchera, & Doménech, 1993).

Recent research suggests that the concept of schizotypy covers different dimensions of experience. For example, a factor analytical study of many different scales reported by Bentall, Claridge and Slade (1989) suggests that schizotypy includes cognitive and perceptual dimensions, social anxiety, and anhedonic experiences. Other studies have reported different patterns or variants of the patterns found by Bentall and his colleagues (e.g., Lipp, Arnold, & Siddle, 1994; Muntaner, García-Sevilla, Fernández & Torrubia, 1988).

Although there is some evidence that schizotypal experiences may be predictive of later psychotic breakdown (Chapman, Chapman, Kwapil, Eckblad, Zinser, 1994), it is also possible to conceptualize schizotypy in other ways. For example, Claridge (1985) has postulated that the schizotype has different inhibitory mechanisms of the nervous system and that this leads to a variety of anomalous cognitive and perceptual experiences but not necessarily to pathology. A continuum of experience is assumed that can range from low to high schizotypal experience.

The work of McCreery and Claridge (1995, 1996a, 1996b) has recently related schizotypy to the OBE. For example, one study found higher scores on a variety of schizotypy questionnaires in OBE groups than in control non-OBE groups, and in multiple OBEs as compared to single OBEs (McCreery & Claridge, 1995). Because this study did not explore schizotypy and its relation to the features of the OBE, I decided to do so in the hope of extending their findings to the inner aspects of the experience. I

decided to use part of the STA, a widely-used schizotypy scale developed by Claridge and Brocks (1984), and parts of the Perceptual Aberration Scale (Chapman, Chapman, & Raulen, 1978). I predicted a positive relationship between the OBE index, willful OBEs, and OBE frequency and the schizotypy scores. This analysis was particularly important because it could relate the content and complexity of the OBE to schizotypy. However, as argued by McCreery and Claridge (1995), correlations of this sort do not necessarily involve pathology. They may only indicate a predisposition of the nervous system to experience alterations of consciousness and perception that, depending on context and situational factors, could be considered to be, or could become pathological, in the sense of impairing functioning in daily life.

Blackmore (1986b, 1993, p. 180) has argued that cognitive variables may be particularly important for the production of OBEs in intentional experiences, but not in non-intentional ones. Her point is that, a person needs the ability to mobilize cognitive resources in order to generate a willful experience, resources that are mobilized automatically when the experience occurs “spontaneously” in the context of stress, accidents, medical conditions, or other elements like meditation or the need to withdraw that induce a change in consciousness. However, even though such analyses are clearly important for our understanding of the OBE they have not been conducted up to now. Therefore, to test for this idea, I predicted that both absorption and schizotypy scores would correlate positively with a continuous measure of willful control of OBEs.

### Aftereffects of OBEs

Finally, the present study was also designed to assess the relationship between OBE features and such after-effects of the experience as attitudes towards the self,

religion, and society. A few studies have addressed the issue of behavioral changes in individuals after an OBE (e.g., Gabbard & Twemlow, 1984; Osis, 1979). In addition, much research has been conducted on the after-effects of near-death experiences, an experience that has the OBE as one of its main phenomenological features (e.g., Fenwick & Fenwick, 1995; Greyson & Stevenson 1980; Ring, 1980; Sabom, 1982; Sutherland, 1992/1995). However, little has been done to relate changes after OBEs to psychological variables or to the content of the experience. Greyson (1992) reported that the deeper his cases of near-death experiences were (assessed with an index of the average of the experiences' inner features in his questionnaires), the lower the scores on a measure of fear to death. In addition, Morse has recently claimed (unfortunately with no documentation) that the aspect of near-death experiences that causes transformation is seeing the light (Morse, with Perry, 1994). Although such findings may not be generalized to OBEs, we need to recognize that this is an important line of research to the extent it provides the possibility that we may identify the factors of the OBE that bring about changes in experiencers. However it is one thing to identify changes, and quite another to understand the factors that moderate or mediate such changes. One wonders if the key variable could be the raw number of features. If so, I would predict a significant positive correlation between the OBE Feature Index and changes after the OBE. But perhaps changes after OBEs are of a higher magnitude if the OBE contains certain specific features. Feature frequency or feature complexity may serve to impress the experiencer in a way that restructures his or her overall perception of life and the sense of the self.

In addition, I conducted exploratory studies to see if the measures of absorption and schizotypy used in this study were related in some way to the OBE after-effects.

These analyses represent the beginning of an exploration of the psychological variables that interact with such aftereffects.

### Summary of Hypotheses

To summarize, I predicted:

1. A positive and significant correlation between distance from the physical body during the OBE and a measure of thinking and mental clarity, and a similar positive relationship between the distance measure and a measure of control of movements (2 predictions).
2. A higher frequency of reports of shocks to the body at the end of the experience if the return to the body was sudden and rapid than when returns were slow and gradual (1 prediction).
3. A higher frequency of seeing the physical body, lights, tunnels, spiritual entities, and hearing noises at the beginning of the experience in near-death OBEs than in non-near-death ones (five predictions).
4. Higher scores on the OBE Feature Index in cases in which the body was lying down or in relaxed circumstances than in cases in which the person was standing, or in cases in which the physical body was active, respectively (2 predictions).
5. Higher scores on the OBE Feature Index for the OBEs of multiple experiencers than for the OBEs of single experiencers, and for those of persons who have had willful OBEs than for those who have had only spontaneous OBEs (2 predictions).
6. A positive significant correlation between the OBE Feature index and scores of knowledge about OBEs before the experience (in single experiences only) (1 prediction).

7. Higher scores on the OBE Feature Index for cases obtained from parapsychology-related sources (e.g., parapsychology and spiritualistic periodicals) than for those obtained from non-parapsychology-related sources (1 prediction).

8. Higher absorption scores for experiencers who described themselves as in another body during the OBE than for those who described themselves as without a body or with other variants (1 prediction).

9. Positive and significant correlations between scores on Tellegen's Absorption Scale, the short PAS, and the short STA, and the following OBE variables: OBE Feature Index, OBEs at will, and OBE frequency (9 predictions).

10. Positive and significant relationship between an index of changes after the OBE and the OBE Feature Index (1 prediction).

## Method

### Participants

The participants selected themselves on the basis of responses to queries for OBEs published in a variety of sources to be described below in this section. Usable replies for the OBE questionnaire were received from 88 individuals. Because not everyone answered all the questions the demographics and other questions are not always based on the whole sample. Of the 87 who provided information about their sex, 62% percent were female and 38% were male. Their ages ranged from 20 to 80 with a mean of 51.76 (N = 86, SD = 14.67). The mean age at the time of the OBE was 33.12 (N = 81, Range: 5-78, SD = 14.98).

Most of the respondents were married (51%), and the rest were divorced (19%),

single (17%), widowed (8%), and separated (5%). Out of 87 respondents to the question about nationality, 88% described themselves as from Great Britain. The rest claimed they were Americans (8%), Italians (2%), Sri Lankans (1%), and New Zealanders (1%). Out of 71 participants who indicated where in Great Britain they were born, 61% said Scotland and 39% said England.

Only 57 persons answered the question about religion. The most frequent category was that of “None” (33%). The rest classified themselves in ways that were sometimes not specific (e.g., Protestant or Christians). Consequently, some of the information that follows is not precise: Church of Scotland (12%), Catholic (10%), Church of England (7%), Protestant (7%), Christian (5%), Spiritualist (3%), Eclectic (3%), and various others (18%; one each including such as Buddhist, Islamic, Jewish, and “Non believer”).

Religiosity was measured using a six point scale that ranged from “Not religious at all” (a score of 0) to “Extremely religious” (a score of 5). The mean was 1.74 (N = 82, range: 0-4, SD = 1.31).

Most of the respondents (N = 87) came in contact with the project by answering advertisements in newspapers (63%), and in newsletters and magazines related to parapsychological phenomena (18%). The rest were approached by the researcher (10%), referred by someone else (2%), or found in other ways such as requests for cases that appeared in two British-based on-line discussion groups on parapsychology (6%). Table 18 (on the next page) shows the publications in which calls for OBE cases were printed.

The second questionnaire (described below) was answered by 50 participants out of 64 (78%) that had said “yes” to a question about willingness to complete additional questionnaires at the end of the OBE questionnaire.



Table 18  
Locations of the Published Calls for OBE Cases

Sources	Country	Number of Cases
<b>Newspapers</b>		
(N = 54)		
<i>Dundee Courier &amp; Advertiser</i>	Scotland	12
<i>The Scotsman</i>	Scotland	4
<i>Edinburgh Evening News</i>	Scotland	14
<i>Press and Journal</i>	Scotland	7
<i>West Highland Free Press</i>	Scotland	5
<i>Sunday Express</i>	Scotland	1
<i>The Scotsman and Courier &amp; Advertiser</i>	Scotland	1
<i>Evening News and The Scotsman</i>	Scotland	2
<i>Evening News or The Scotsman</i>	Scotland	1
Do not remember	Scotland	6
Referred by Friend who saw Newspaper	Scotland	1
<b>Parapsychology-Related Magazines, Newsletters, and On-line Discussion Boards</b>		
(N = 19)		
<i>Journal of the Society for Psychical Research</i> <sup>1</sup>	England	4
<i>Christian Parapsychologist</i> <sup>2</sup>	England	4
<i>Psi Report</i> <sup>3</sup>	Scotland	3
<i>Light</i> <sup>4</sup>	England	2
<i>Psi Researcher</i> <sup>5</sup>	England	1
<i>Journal of the Society for Psychical Research and Psi Researcher</i>	England	2
On-Line Parapsychology Discussion Boards	England	3

1. Scholarly journal published by the Society for Psychical Research. Includes studies of spontaneous phenomena, occasional experiments, historical papers, and theory.

2. Magazine devoted to religious aspects of parapsychological phenomena and mystical experiences.

3. Newsletter of the Scottish Society for Psychical Research. Mainly news for members.

4. Spiritualist magazine. Cases and philosophical discussions.

5. Newsletter of the Society for Psychical Research. General articles and news for members.

## Procedure

Several letters were sent to newspapers in Scotland which asked people who have had OBEs, and who were willing to participate in a study involving answering questionnaires, to get in contact with the researcher. Letters were also published in spiritualist and psychical research periodicals, and posted to two on-line discussion groups of parapsychological topics on the Internet (paranormal@mailbase.ac.uk, and prf@mailbase.ac.uk). All the publications are listed on Table 18 (on the previous page). One of the papers, the Edinburgh *Evening News*, published an article in which this research project was featured. Another Scottish paper, *The Scotsman*, published a short comment ridiculing the project. The questionnaire sent to the respondents included a question about where they saw the call for cases.

All the call for cases included the following question: "Have you ever had an experience in which you felt that 'you' were located 'outside of' or 'away from' your physical body; that is, the feeling that your consciousness, mind, or centre of awareness was at a different place than your physical body?" Potential respondents, if they could answer yes to the question and were willing to complete questionnaires, were instructed to write to the researcher at the Department of Psychology of the University of Edinburgh. They were assured that all communications would be kept confidential.

When the letters arrived each one was filed and assigned a code number. Each person was then sent a cover letter with the OBE questionnaire used in the study. If they indicated their willingness to answer further questions in the first questionnaire, a second questionnaire, asking a variety of questions about different psychological experiences, was sent to them. All mailings included self-stamped and addressed reply envelopes. After a few months, a second mailing of the first or of the second questionnaire, was sent

to those who had not replied. Unfortunately, the second mailing to obtain questionnaires from those who had not replied to the first call could not be carried out as planned. Due to lack of funds that forced a relocation, the researcher was forced to interrupt his research for a period of about a year. Because of this, only seven questionnaires were obtained from the second mailing. Consequently, no analyses comparing the first and the second mailing could be conducted.

A total of 127 OBE questionnaires were distributed. Most of these were sent to individuals who requested them by writing to me after they saw my printed call for OBE cases (91%). The rest were sent to two individuals that requested them for their friends (6%, these were not returned), to people I knew have had OBEs (2%), and to one person referred by a colleague (1%). Out of these 127 OBE questionnaires, 90 (71%) were returned, but only 88 (69%) were usable. One of the questionnaires was discarded because it was not answered correctly. The other was not used because it was accompanied by a letter that indicated that the participant was a patient in a mental hospital. It was felt that, regardless of the validity of the experience, it was not worth adding an extra data point if correspondence with this person may have encouraged a delusional system or created further confusion in someone who was obviously under psychological care.

One of the last questions in the OBE questionnaire asked the participants if they would be willing to answer additional questionnaires. Sixty-nine of the participants answered this question. Of these, 64 (93%) said "yes" and the second questionnaire was mailed to them (to be described below).

## Questionnaires

The OBE questionnaire had 16 pages (a copy appears in Appendix 4). It started with demographic questions (11 items), and with a question about where or how the participant heard about or came in contact with, the project. After this there were two questions about frequency and level of control of OBEs. The participant was asked to describe his or her most recent OBE, or the only one they had experienced. A whole page was provided for this but they were told that additional paper could be used if necessary. After the description, respondents were told that the questions should be answered in terms of the experience described. The rest of the questionnaire consisted of questions about the circumstances surrounding the experience (e.g., age at the time of the OBE, conditions such as illness, prayer or meditation, and voluntary induction, belief that the person was near-death, particular problems in the participant's life), about visual experiences (e.g., seeing things such as: the physical body, another OB body or no body at all, a different "dimension" or normal surroundings, lights, cord-like connection to physical body, images of events of the experiencer's life, spiritual entities or beings, vision through things, 360-degree vision, seeing around corners, veridical perceptions, quality of visual perception), auditory experiences (hearing sounds such as: voices, buzzing, snapping, and wind-like sounds, music), kinesthetic sensations (sensations of leaving the body and returning to it, sensations of floating, falling and rising, passing through a tunnel, feeling vibrations, OB position at first, degree of separation from physical body, change in location of consciousness from physical to OB location, speed of movement, degree of control of movements, ability to pass through, touch and move matter, feeling an energy surge, solidity of OB body, shock to body on return), cognitive and emotional aspects (losing consciousness while leaving and returning, quality of

thinking and mental clarity and of feelings and moods, level of relaxation, ability to manipulate environment by thought, sense of oneness with surroundings, sense of change of time), and other aspects (distance from the physical body, which sensory modalities were active and predominance of any particular one). Many of the questions had several sections that asked for details about the particular claims. At the end of the questionnaire the participants were asked about their knowledge of OBEs before the experience, and if the experience had changed their views about things. That is, the participants indicated whether their OBEs had changed their attitudes towards: (1) themselves, who they were; (2) their view of human nature; (3) society; (4) God, their religious beliefs; (5) life, its meaning and purpose; (6) death, its meaning and purpose; (7) communication and interaction with human beings; (8) material wealth and possessions; and (9) other. The last item asked the participants to indicate if they were willing to participate in further research by answering other questionnaires.

The second questionnaire consisted of Tellegen's Absorption Scale (34 items, Tellegen, 1982, 1992; Tellegen & Atkinson, 1974), parts of Claridge's schizotypy questionnaire (STA, 13 items Claridge & Brocks, 1984), and parts of the Perceptual Aberration Scale (8 items, Chapman, Chapman, & Raulen, 1978). In addition, there were questions about psi experiences (4 questions about apparitions, dream ESP, waking ESP, and auras) and about mystical experiences and lucid dreams (1 each). All of the parapsychological, mystical and dream experiences were adapted from questions used by Palmer (1979). The order of the questions was randomized and all the questions followed the true and false format, because the absorption and the schizotypy questionnaires were standardized in this response format. A copy of the questionnaire appears in Appendix 5.

Because the participants had already answered a long questionnaire about their OBE, it was decided to shorten the second questionnaire so as to not to burden the participants too much and to increase the return rate. The STA is part of a longer questionnaire, the STQ, based on DSM-III criteria for Schizotypal Personality Disorder and Borderline Personality Disorder. The STQ consists of two scales, the Schizotypal Personality (STA) and the Borderline Personality (STB). The STA has a long history of use separate from the STB and has been found to have discriminant validity, as assessed in comparisons between normal controls and individuals with psychiatric diagnoses (Jackson & Claridge, 1991). The STA has been found to have adequate test re-test reliability ( $r = .64$ ; Jackson & Claridge, 1991), and a good inner consistency, as assessed using the Cronbach Alpha (see the discussion below). I used the 13 items of the STA that were found by Jackson and Claridge (1991) to discriminate clinical subjects from control ones at the .001 level. These authors pointed out that these items had a “more manifest psychotic content” (p. 321) than the rest of the items of the scale. In the present study, the shortened STA scale obtained a mean of 4.04 ( $N = 48$ , Range: 0-9;  $SD = 2.41$ ), with a Cronbach Alpha of .73. This is somewhat lower than the alphas of the whole scale obtained by Claridge and Hewitt (1987, .86), Lipp, Arnold, and Siddle (1994, .87), and Muntaner et al. (1988, Males = .87, Females = .89). Of course the results are not strictly comparable due to the different number of items used in the present study.

The PAS was developed from descriptions in the clinical literature of body image distortions experienced by schizophrenics and by borderline schizophrenics. This test has been found to have adequate test re-test reliability (Lipp, Arnold & Siddle, 1994, .96; Muntaner et al., 1988, .71), and a good inner consistency, as assessed using the Cronbach Alpha (see the discussion below). I used a shortened version of the PAS based on

analyses reported by Korfine and Lenzenweger (1995), and Lenzenweger and Korfine (1992). These authors selected 8 items out of a total of 35 using item analysis. The mean on this shortened PAS scale in the present study was 2.10 (N = 50, Range: 0-8, SD = 2.13), with a Cronbach Alpha of .80. This Alpha is similar to those by Chapman and Chapman (1989, Males = .89, Females = .89), Muntaner et al. (1988, Males = .91, Females = .85), and Rawlings and MacFarland (1994, .78). Once again, it must be acknowledged that these comparisons are not strictly valid due to the different number of items in the scale used in the present study.

The shortened STA and PAS correlated significantly with each other ( $r_{(48)} = .43$ ,  $p = .002$ ). This relationship, although moderate, provides evidence of construct and concurrent validity in these measures. That is, there is evidence that the construct of schizotypy is being measured (construct validity) and there is a relationship with other tests supposed to measure the same construct (concurrent validity) (on these types of validity see Kline, 1993).

Tellegen's Absorption Scale is one of 11 scales from the Differential Personality Questionnaire, later named the Multidimensional Personality Questionnaire (Tellegen, 1982). It includes items based on questions previously used to study spontaneous hypnotic-like experiences and on new questions developed by Tellegen. Respondents obtained a mean of 20.82 (N = 50, Range: 0-34, SD = 7.54) with a Cronbach Alpha of .91. The mean and the alpha obtained in this study are similar to Tellegen's (1982) statistics (Mean = 19.8, Alpha = .89). Unfortunately, later work with the scale lacks clear information about the psychometric properties of the instrument (see Roche & McConkey's [1990] comments about this).

The Absorption Scale correlated significantly both with the shortened PAS ( $r_{[50]}$

= .51,  $p = .0002$ ) and with the shortened STA ( $r_s[48] = .30, p = .04$ ). This is conceptually consistent with the results of a previous study in which “magical thinking”, another well known measure of schizotypy (Eckblad & Chapman, 1983), correlated significantly with the Absorption Scale (Williams, Lawrence, & Roe, 1997).

### Analyses

The data was entered into the StatPac Gold 4.5 statistical software program. An OBE Feature index was calculated by summing the 45 yes and no answers to questions about OBE features. Frequency-based analyses were assessed using the chi-square test. Analyses based on scores and on the OBE feature index were analyzed with Spearman Rank Order correlations, and with Mann-Whitney U Tests. Effect sizes for the  $z$  values generated by the Mann-Whitney U test were calculated using the same equation presented on Chapter 4 of this thesis.

## Results

### OBE Frequency and Other Variables

All of the participants reported OBEs, because they were self-selected by their replies to the initial published OBE question. Out of 86 cases with information about frequency 50% had one OBE and 50% had more than one. Table 19 (on the next page) presents the actual frequency of OBEs. The Table clearly shows that most participants had had only one OBE, or between two and five experiences. The frequency of experiences declined in a marked way after the latter category.

Out of 79 replies to the question about having OBEs at will, the distribution was



as follows: Never (84%), sometimes (13%), frequently (1%), most of the time (1%), and always (1%). Most of the respondents had no willful control of their OBEs.

Table 19  
OBE Frequency (N = 86)

Frequency	Percent
Once	50
2-5	34
6-20	10
21-40	1
41-60	0
61-80	0
81-100	0
Over 100	5

As can be seen on Table 20 (on the next page), OBEs were reported to occur under a variety of circumstances. In response to a question about the experiencer's belief that he or she was near-death when they had the experience, 27% said "yes" and 73% said "no" (N = 81).

### OBE Features

The OBE Feature Index obtained a mean of 8.31 (N = 88, Range: 0-25, SD = 5.08). There were no significant differences ( $z = .89$ ,  $p = .37$ ,  $es = .22$ ) between the index of males (N=33, Mean = 8.67, mean Rank = 47.10) and females (N = 34, Mean = 8.24, mean Rank = 42.11). Age at the time of the experience did not correlate with the Feature Index ( $r_s[81] = -.08$ ,  $p = .47$ ), nor did religiosity ( $r_s[82] = .12$ ,  $p = .30$ ).

Table 20  
Circumstances Surrounding the Occurrence of the OBE  
(N = 81)

Circumstance	Percent
Exhaustion	1
Illness	12
Physical crisis	3
Emotional state of shock	7
Just before going to sleep	3
Sleep	11
Waking up	5
Resting	10
Prayer or meditation	3
Routine activities	4
Influence of drugs or medicines	6
Accidents	7
Voluntary induction	6
Other	22*

\*The other category consists mainly of combinations of some of the above mentioned circumstances.

Table 21 (on the next page) presents the frequencies of several features classified on a "yes" or "no" basis. As can be seen some features were common while others were rare. Among the most common ones were: floating sensations (71%); finding oneself in usual surroundings (69%); seeing the physical body (65%); seeing the surroundings from above, that is, from an elevated position (63%); and sensations of rising while leaving the body (56%). Some of the features with low incidence of endorsement were: sensation of oscillation of consciousness between OB location and physical body (1%); seeing a

cord-like connection between the OB location and the physical body (2%); seeing images of one's earlier current life (3%); manipulate the environment by thought (3%); and seeing around corners (4%).

Table 21  
Frequency of OBE Features

Feature	N	Percentage
Saw physical body	81	65
Could not move physical body before OBE	75	35
Aware of sensations of leaving body	84	33
Lost consciousness leaving body	68	18
Sensation of falling leaving body	74	4
Sensation of rising leaving body	81	56
Passed through tunnel, enclosure or place leaving body	80	18
Felt vibrations or tingling sensations leaving body	76	17
Heard sounds leaving body	74	26
Entered place different from usual surroundings	72	28
Stayed in usual surroundings	74	69
Saw both physical body and second body while located in a third position	79	5
Saw surroundings from above	81	63
Saw lights around or at a distance	80	33
Saw ray of light, cord, ribbon or rope connecting OB self to physical body	83	2
Saw images of events or actions of person's earlier life	80	3
Saw spiritual entities or beings	78	18
Could see through physical objects	75	8
Could see in 360 degrees	74	10
Could see around corners	71	4

(Continues on the next page)

Table 21 (continued)

Feature	N	Percentage
Surroundings illuminated by something other than normal light	75	36
Obtained information about events at a distance	79	13
Seen or perceived at a distance	79	3
Saw mist, fog, or clouds	72	18
Heard music	83	4
Heard voices	75	9
Heard wind-like sounds	77	12
Heard clicking or snapping sounds	77	3
Heard buzzing sounds	77	5
Consciousness oscillated between OB location and physical body	80	1
Sensation of second OBE while OB	82	5
Floating sensations	78	71
Passed through matter	68	21
Touched physical objects and felt they were physical	73	19
Moved physical objects	66	5
Could manipulate environment by thought	71	3
Felt connected to physical body	61	36
Sense of energy	81	30
Sense of oneness with surroundings	78	23
Felt surroundings expanded or contracted	77	9
Feeling of all-knowing and understanding	75	28
Moving or traveling in time	79	18
Aware of sensations of returning to body	79	35
Lost consciousness on return	70	17
Sensation of falling on return	74	22
Passed through tunnel, enclosure or place on return	78	5
Felt vibrations on return	73	14
Heard sounds on return	79	14
Heard buzzing sounds on return	77	0
Heard clicking or snapping sounds on return	77	3
Heard wind-like sounds on return	77	8
Felt shock all over body on return	77	22
Could not move after returned to body	81	20

Some of the questions which inquired about other aspects of the visual experience of OBEs were not included on Table 21. Table 22 shows that vision was the main sensory mode endorsed by the experiencers, as compared to other modes. Table 23 (on the next page) shows additional aspects of OBE vision. Most of the respondents reported better vision or vision that was the same as usual (46% each). Vision was described most often as similar to normal vision (93%), and in color (77%).

Table 22  
Frequency of Sensory Modalities in OBEs

Variable	N	Percentage
<i>Perceived Environment Through:</i>		
Vision	80	94
Hearing	80	44
Touch	79	17
Temperature	79	17
Movement	79	33
Smell	78	5
Other*	77	8
<i>Dominant Modality:</i>		
Vision		69
Hearing		1
Touch		1
Temperature		1
Movement		12
Smell		0
Other*		23
*Combination of some of the above.		

Table 23  
Additional Features of OBE Vision

Variables	N	Percentage
<i>Clarity of vision</i>	79	
Clear, bright		46
Same as usual		46
Confused, foggy		9
<i>Vision was:</i>	75	
In color		77
Black and white		7
One dominant color		5
Combination of the above		11
<i>Vision was:</i>	75	
Like normal vision		93
Lost on occasion		7

Table 24 (on the next page) presents the frequency of the forms in which the experiencers described themselves to consist and the degrees of solidity they described themselves to have during their OBEs. The most frequent form was without a body (40%). Most participants described themselves as feeling they were not solid at all (62%).

Additional features related to spatial and kinesthetic aspects of the OBE appear on Table 25. Here it can be seen that rapid and sudden feelings of leaving and returning to the body (the upper range of the scale) were more frequent than the other intermediate options (54% and 59%, respectively). Most individuals experienced complete separation from their physical body (63%), and over half of them could not control their movements

(56%).

Table 24

## Self-Perception and Degree of Solidity During OBEs

Variables	N	Percentage
<i>Form</i>	64	
Another body similar to physical body		30
No body		40
Cloud, mist, ball of light		11
No recollection		3
Other		16
<i>Degree of solidity</i>	78	
Not solid at all		62
Slightly solid		13
Somewhat solid		9
Fairly solid		4
Almost solid		3
Solid		10
More solid than usual		0

Out of 55 respondents, 58% described their physical body as passive (e.g., unconscious), while 22% described it as semi-passive (e.g., lying down), and 20% as active (e.g., talking or moving). Eighty participants gave information about the position of the physical body at the moment of their OBE. Most of them were lying down (59%). The rest were sitting up (14%), standing (9%), changed their positions during the experience (6%), had no recollections (1%), and a combination of two of the above options or a few other positions (11%).

Table 25  
Additional Spatial and Kinesthetic Features of OBEs

Variable	N	Percentage
<i>Leaving the body occurred:</i>	79	
Slowly, gradually		11
Somewhat slowly		17
Somewhat rapidly		18
Rapidly, suddenly		54
<i>Return to body occurred:</i>	69	
Slowly, gradually		6
Somewhat slowly		20
Somewhat rapidly		15
Rapidly, suddenly		59
<i>Position at beginning of experience:</i>	66	
Horizontal over physical body		32
Vertical over body		11
Far away from body		24
Other		33
<i>Position at end of experience:</i>	60	
Horizontal over physical body		48
Vertical over body		13
Far away from body		18
Other		20
<i>Distance from physical body:</i>	80	
Less than 1-6 inches		8
Six inches-1 foot		1
One-three feet		14
Three-five feet		19
Five-15 feet		29
15-25 feet		11
25 feet-several miles		9
Other countries/places far away		6
Distance varied		4

(Continues on the next page)



(Table 25 continued)

Variable	N	Percentage
<i>Degree of separation from body:</i>	81	
Little separation		7
Partial separation		11
Almost complete separation		19
Complete separation		63
<i>Rate of movement:</i>	71	
Very slowly		17
Somewhat slowly		28
Normally		7
Somewhat fast		3
Fast		0
Very fast		9
Instantly		23
Different speeds		14
<i>Could control movements:</i>	68	
Not at all		56
Sometimes		7
Most of the time		16
Always		21
<i>Factors leading to termination of OBE:</i>	64	
Returned at will		17
Fear or alarm		22
Pulled by physical body		13
Pushed by outside force		9
Told to return		8
Other		31

### Hypotheses Based on Muldoon's OBEs

Previous findings based on Muldoon's experiences (Alvarado & Zingrone, 1997a; non-thesis work) regarding a higher frequency of shocks to the body on rapid and sudden returns to the body, as compared to slow and gradual returns, were not replicated. Out

of four cases with slow and gradual returns, 50% had shocks, as compared to 24% of the 38 cases of rapid and sudden return ( $N = 42$ ,  $\chi^2[1] = .29$ ,  $p = .30$ , 1t,  $\phi = .08$ ). Unfortunately, the low number of slow and gradual returns suggest this may not have been a proper test of the hypothesis.

Another of the hypotheses based on Muldoon's experiences was a positive correlation between rate of control of movements during the OBE and distance from the physical body. This was confirmed ( $r_s[65] = .36$ ,  $p = .002$ , 1t). Similarly, the prediction of a positive relation between clear thinking/mental clarity (one variable) and distance was also confirmed ( $r_s[74] = .21$ ,  $p = .04$ , 1t). If the distances were limited to those less than five feet from the body ( $N = 29$ , Mean = .52, Mean Rank = 20.79) and those over 15 feet from the body ( $N = 18$ , Mean = 1.44, mean Rank = 29.17), which clearly include those below and above the eight feet range from the body emphasized by Muldoon for control, the difference was significant,  $z = 1.83$ ,  $p = .03$ , 1t,  $es = .73$ . The results for thinking and mental clarity were not significant. They were as follows: Below 5 feet from body ( $N = 17$ , Mean = 2.12, Mean Rank = 13.38), over 15 feet from the body ( $N = 11$ , Mean = 2.36, Mean Rank = 16.23),  $z = .89$ ,  $p = .19$ , 1t,  $es = .34$ .

### Near-Death vs. Non-Near-Death OBEs

Many comparisons were conducted comparing the features of OBEs for those who perceived they were near-death at the moment of the experience and those who were not.

Out of 81 questionnaires with this information, 27% believed they were close to death and 73% did not believe that this was the case. Table 26 (on the next page) presents the chi-square comparisons (corrected for continuity) and indicates the predicted analyses expected to favor the near-death attribution of the participants.

Table 26

Comparison of OBE Features in Experiences Believed by the Experiencers to Have Occurred Near-Death or Non-Near-Death

Feature	Near Death	N	Non-Near Death	N	$\chi^2(1)$	p	phi
Saw physical body	86%	21	57%	56	4.29	.02 <sup>a</sup>	.24
Sensations of leaving body	29%	21	38%	58	.25	.62	.06
Lost consciousness leaving	33%	15	12%	50	2.37	.12	.19
Sensation of falling leaving	6%	17	4%	53	.10	.75	.04
Sensation of rising leaving	58%	19	58%	57	.07	.79	.03
Passed through dark tunnel, enclosure, or place leaving	28%	18	16%	57	.62	.21 <sup>a</sup>	.09
Felt vibrations leaving	6%	18	23%	53	1.60	.21	.15
Heard sounds leaving	33%	18	25%	53	.18	.34 <sup>a</sup>	.05
Saw surroundings from above	68%	19	58%	57	.29	.59	.06
Saw lights	55%	20	25%	56	4.73	.01 <sup>a</sup>	.25
Saw connecting cord	0%	21	4%	57	.004	.95	.01 <sup>b</sup>
Saw images of events or actions of person's earlier life	5%	21	2%	55	.01	.93	.01
Saw spiritual entities or beings	25%	20	15%	53	.41	.26 <sup>a</sup>	.08
Could see through physical objects	12%	17	6%	53	.10	.76	.04
Could see in 360 degrees	12%	17	8%	53	.002	.97	.01
Could see around corners	0%	18	4%	49	.004	.95	.01 <sup>b</sup>
Surroundings illuminated by something other than normal light	63%	19	29%	52	5.57	.02	.28

(Continues on the next page)

(Table 26: Continued)

Feature	Near Death	N	Non-Near Death	N	$\chi^2(1)$	p	phi
Obtained information about events at a distance	21%	19	9%	55	.94	.33	.11
Seen or perceived at a distance	5%	19	2%	55	.001	.98	.003
Saw mist, fog, or clouds	33%	18	14%	51	2.19	.14	.18
Heard music	5%	21	3%	58	.16	.69	.04
Heard voices	16%	19	6%	51	.70	.40	.10
Consciousness oscillated between OB location and physical body	0%	20	2%	56	.29	.59	.06 <sup>e</sup>
Sensation of second OBE while OB	5%	20	5%	57	.29	.59	.06
Floating sensations	67%	21	69%	52	.004	.95	.01
Passed through matter	18%	17	24%	46	.04	.85	.02
Touched physical objects	0%	19	28%	49	5.20	.02	.28 <sup>d</sup>
Moved physical objects	0%	17	7%	44	.20	.66	.06 <sup>e</sup>
Could manipulate environment by thought	0%	19	2%	47	.22	.64	.06 <sup>f</sup>
Felt connected to physical body	20%	20	43%	56	2.40	.12	.18
Sense of energy	35%	20	30%	56	.01	.92	.01
Sense of oneness with surroundings	37%	19	20%	54	1.26	.26	.13
Felt surroundings expanded or contracted	21%	19	6%	53	2.23	.14	.18
Feeling of all-knowing and understanding	53%	19	19%	52	6.11	.01	.29
Moving or traveling in time	19%	21	17%	53	.02	.90	.01
Sensations of returning to body	21%	19	44%	55	2.18	.14	.17
Lost consciousness on return	31%	16	14%	51	1.49	.22	.15

(Continues on the next page)

(Table 26: Continued)

Feature	Near Death	N	Non-Near Death	N	$\chi^2(1)$	p	phi
Sensation of falling on return	16%	19	26%	50	.33	.56	.07
Passed through dark tunnel, enclosure, or place on return	0%	20	8%	53	.47	.49	.08 <sup>b</sup>
Felt vibrations on return	6%	17	18%	51	.63	.43	.10
Heard sounds on return	6%	18	18%	56	.80	.37	.10
Felt shock over all body on return	16%	19	26%	54	.34	.56	.07
Could not move after returned to body	30%	20	18%	56	.68	.41	.09

Note: All chi-squares are corrected for continuity.

<sup>a</sup> One tailed predicted analyses. All other p values are two tailed.

<sup>b</sup> For both comparisons a Fisher Exact Probability test gives a p of .53

<sup>c</sup> Fisher's Exact P = .99 (2t).

<sup>d</sup> Fisher's Exact P = .01 (2t).

<sup>e</sup> Fisher's Exact P = .74 (2t).

<sup>f</sup> Fisher's Exact P = .99 (2t).

<sup>g</sup> Fisher's Exact P = .27 (1t), predicted analysis.

Out of the 43 analyses presented on Table 26 five (12%) were statistically significant. Four (9%) favored the near-death condition (seeing the physical body, seeing lights, seeing the surroundings illuminated by something other than normal light, and a feeling of all-knowing and understanding) and one (2%) favored the non-near-death group (touching physical objects). Two of the five predictions based on the study of Gabbard, Twemlow and Jones (1981) were confirmed, seeing the physical body and seeing lights.

### OBE Feature Index and Other Aspects of OBEs

To test for differences in OBE content in relation to physical activity, I used the OBE Feature Index, a combined measure of OBE features. As predicted, those participants who were lying down at the time of the OBE (N = 47, Mean = 10.23, Mean Rank = 30.49) obtained a significantly higher OBE Feature Index mean than the participants who were standing (N = 7, Mean = 3.71, Mean Rank = 7.43), as assessed using the Mann-Whitney U test ( $z = 3.62$ ,  $p = .0002$ ,  $1t$ ,  $es = 1.47$ ).

Similarly, the prediction of a significantly higher index in individuals whose physical body was passive as compared to those who were active was confirmed. The passive individuals had a mean of 8.50 (N = 32, Mean Rank = 24.67) while the active ones had a mean of 5.73 (N = 11, Mean Rank = 14.23;  $z = 2.38$ ,  $p = .01$ ,  $1t$ ,  $es = .83$ ).

Table 27 shows the results of several correlational analyses between the OBE Feature Index and other OBE variables.

Table 27  
OBE Feature Index in Relation to Other OBE Variables

Variables	N	$r_s$	p
OBE frequency	86	.14*	.11 (1t)
OBE at will	79	.35*	.001 (1t)
Degree of separation from body	81	.02	.87
Duration of OBE	67	.49	.00003
Distance from physical body	80	.22	.05
Relaxation during OBE	74	-.23	.05

\*Partial correlations controlling for age at the time of the OBE revealed coefficients of .15 for OBE frequency and of .41 for OBE at will.

### Psychological Variables

To test for the influence of previous knowledge about OBEs (before the experience) on OBE content I correlated the amount of knowledge measured on a three-point scale to the OBE feature Index of those participants who had only one OBE (N = 41, Mean = .41, Range: 0-2, SD = .66). Those who had more than one OBE were not included because experiencing an OBE is a form of obtaining knowledge about the experience, and would confound the analysis. The correlation was not significant ( $r_s(41) = .08, p = .32, 1t$ ).

It was also hypothesized that those participants who came into the project through parapsychology-related publications would be different from those who were recruited through conventional newspapers. That is, I expected that the first group would have a significantly higher OBE Feature Index. Curiously, the opposite was found. The Index mean for the parapsychology-related participants was 7.21 (N = 19, Mean Rank = 30.63), as compared to a mean of 9.45 for the newspaper respondents (N = 55, Mean Rank = 39.87). The difference was in favor of the newspaper group, the opposite of my prediction ( $z = 1.61, p = .95, 1t, es = .43$ ).

Table 28 (on the next page) presents correlations between the Absorption Scale, the shortened STA and the shortened PAS in relation to three OBE variables: the OBE Feature Index, OBE frequency, and OBE at will. The prediction of positive significant correlations were confirmed mainly with OBE at will and with OBE frequency.

### OBEs and Parapsychological Experiences

The mean of the index of parapsychological experiences was 2.00 (N = 50, Range: 0-4, SD = 1.37). The index was expected to correlate with the ability to have

OBEs at will, with frequent OBEs, and with the OBE Feature Index. The correlations with OBE frequency ( $r_s[50] = .28, p = .02, 1t$ ) and with OBE at will ( $r_s[47] = .40, p = .003, 1t$ ) were significant, but the one with the feature index was not ( $r_s[50] = .16, p = .13, 1t$ ).

Table 28

Spearman Rank Order Correlations of OBE Variables  
and Measures of Absorption and Schizotypy

Variables	OBE Feature Index	N	OBE Frequency	N	OBE at Will	N
Absorption	.11 (.14)	50	.30** (.31)	50	.40*** (.43)	47
Short Perceptual Aberration Scale	.25* (.27)	50	.39*** (.43)	50	.35*** (.39)	47
Short STA	.09 (.09)	48	.02 (.03)	48	.26** (.28)	45

\* $p = .04$ ; \*\* $p = .02$ ; \*\*\* $p = .01$  (all one-tailed)

Note: Coefficients in parenthesis are partial correlations controlling for age at the time of the OBE

### Changes After the OBE

The mean score for changes after the OBE was 2.77 ( $N = 88$ , Range: 0-9,  $SD = 2.44$ ). These scores were not significantly related to age at the time of answering the questionnaire ( $r_s[86] = -.13, p = .22$ ) nor at the time of the OBE ( $r_s[81] = -.04, p = .74$ ). However, there was a positive and significant correlation with religiosity ( $r_s[82] = .32,$



$p = .004$ ).

Table 29 shows correlations between the scores for changes in relation to OBE and to psychological variables. As can be seen in the Table the correlations with the highest magnitude were the OBE Feature Index (.44) and the absorption scale (.31).

Table 29

Spearman Rank Order Correlations Between Changes After OBEs  
in Relation to OBE and Psychological Variables

Variables	N	$r_s$	p
OBE Feature Index	88	.44	.00001 (1t)
OBE frequency	86	.22	.04
OBE at will	79	.24	.03
Previous knowledge about OBEs	82	-.04	.69*
Index of parapsychological experiences	50	.27	.06
Absorption	50	.31	.03
Short PAS	50	.13	.35
Short STA	48	-.06	.70

\*An analysis using only single OBEs results in  $r_s(21) = .14$ ,  $p = .55$ .

## Discussion

The manner in which the OBE cases were collected may have introduced biases into the sample in terms of representativeness, but it had the advantage of getting a good number of experiences, and finding people motivated enough to fill out long questionnaires (which by itself is another potential source of bias). For example, it is conceivable that those who were motivated enough to answer an advertisement asking

for OBEs, and who took the time to write a letter, were those who have had particular types of OBEs, such as OBEs with a high number of features, or with dramatic features.

Another limitation in the study is that I could not use multivariate statistics for several of the analyses. It would have been preferable to use multiple regression analyses to test whether the Feature Index or the Transformation Index were predicted by specific variables. Unfortunately the sample size was too small to make any meaningful use of this technique (Tabachnick & Fidell, 1996, pp. 132-133).

Overall, the incidence of OBE features in this study was not too different from that found in previous studies, although it was not possible to compare all the features directly. Table 30 (on the next page) shows the current study in relation to my summary of previous studies, as presented in Chapter 2, and in relation to the study reported in Chapter 4 of this thesis. The few differences do not seem beyond the range of feature incidence reported previously.

Unlike previous studies reviewed in Chapter 2, however, in the current study no differences in frequency of occurrences were found between the incidence of single and multiple experiences. In addition, there were very few participants who could have the experience at will.

The analyses related to Muldoon's experiences supported his views of the general characteristics of OBEs to some extent. There were significant positive correlations between measures of thinking and mental clarity during the experience, and control of movement as these two variables were related to distance from the physical body. This supports Muldoon's personal experiences in which he experienced better levels of mental clarity and control of movements farther from than rather closer to the body. The contrasts that took the extremes above the 8 feet range postulated by Muldoon to be

Table 30

## Comparison of OBE Features of the Present Study to those of Previous Studies

Feature	Literature Review*	Previous Study**	Current Study
Sensation of leaving body	31%	42%	33%
Saw physical body	62%	45%	65%
Self perception			
Another body	46%	39%	30%
No body	31%	23%	40%
Cloud, mist, ball of light	29%	10%	11%
Connecting cord	6%	11%	2%
Spiritual entities	29%	25%	18%
Veridical perceptions	19%	15%	13%
Sensation of return to body	56%	42%	35%

\*Review presented on Chapter 2. These are mean percentages of several studies.

\*\*Chapter 4.

critical (that is below 5-15 feet and above 15 feet and over) were significant only for control of movements, however.

The prediction regarding shocks was not confirmed. Nonetheless I combined the significance levels of the present study ( $p = .30$ , 1t) with that of the previous study (Alvarado & Zingrone, 1997a,  $p = .005$ , 1t). This yielded a Stouffer  $z$  of 2.21 ( $p = .01$ , 1t). Further work needs to be conducted on this, because no conclusion can be drawn from only two studies.

The type of comparisons conducted here are important in that they allows us to explore the idiographic and nomothetic dimensions of OBE phenomenology. The OBE patterns of a single individual (Muldoon) may not generalize to other persons. After all, individuals like Muldoon seem to be rare. But the challenge of the research is to find out if there are aspects that can be generalized. Consequently, work like this has the potential of dispelling myths, of testing the experiences of individuals who have been very influential in the astral projection lore for many years. This line of work allows researchers to be responsible to the social needs of people who are interested in these issues by producing research that is relevant to their concerns, and which speaks to the materials they read and believe. As such, I hope that future work will examine further the features experienced by Muldoon, as well as those experienced by other individuals who have written autobiographical accounts (e.g., Fox, 1939; Monroe, 1971; Harary, 1978; Turvey, 1911).

The comparisons of near-death versus non-near-death experiencers confirmed some of the results of Gabbard, Twemlow and Jones (1981). That is, those that believed that their OBE occurred near-death were more likely to report seeing the body and seeing lights than those experiencers that did not believe they were near-death at the time of the experience. These results were also consistent with my own analyses of two other collections reported in Chapter 2. It is difficult to interpret these results but the idea that there is something different in experiences perceived to be close to death received some support here. Perhaps a psychological set is operating in which the person gets prepared for the worst, and lets go of their will to live, or resigns to lose themselves in the experience. Ideas such as this could be tested in future work in which experiencers are interviewed more in depth about their attitudes as the experience progressed. It should

be possible to explore the variety of feelings and thoughts one has in those moments in more detail and to classify them so as to begin to identify which are associated with what experience features.

Two other hypotheses were confirmed, those of positive relations between the OBE Feature Index and the activity of the physical body. The index was higher in passive conditions as compared to active ones, and in cases in which the body was lying down as compared to those in which the body was standing. A similar analysis reported in Chapter 3 was not significant, but was consistent with the predicted direction. Still, the results are not strictly comparable in that the indexes used in both studies are different.

These analyses support the idea that the OBE is a cognitive creation of an organism that has used its imaginal resources to construct an experience and that construction varies according to the level of physical activity. That is, the more physical activity, the less the resources available to use in the construction of the OBE. Of course, there may be other complicating factors. It is conceivable that physical activity, or lack of it, is not the only variable, but that level of involvement in the activity may be important as well. That is, automatic physical activity (such as walking, driving, operating some machinery, running) may be related to higher indexes of OBE complexity, than physical activity that is less automatic, and requires more cognitive involvement in the task at hand. Although it may be possible to test this idea, it may not be so easy, in that in daily life, it may be difficult to classify the cognitive demands of differences in human activity. Although this line of thinking is interesting, it is also obvious that there are many other factors involved in the production of an OBE other than the level of physical activity. Among them are psychological predispositions for

alteration of consciousness, or circumstantial variables such as the stress of believing one is near-death.

The OBE Feature Index was also related to other OBE variables. The hypothesis of a positive and significant relationship between the Index and OBE frequency was not found ( $r_s = .11$ ), but the prediction of the same relationship with having OBEs at will was confirmed ( $r_s = .35$ ). In addition other variables were significantly and positively correlated to the OBE Feature Index. These were duration of the OBE (.49) and distance from the body (.22). Relaxation during the OBE was negatively and significantly correlated to the index. The positive relationship of the ability to have OBEs at will and the Feature Index is consistent with Blackmore's OBE model in which control in inducing the experience is thought to be related to the content of the experience such that the higher the level of control, the higher the number of features in the OBE. Because control may be assumed to be related to cognitive abilities, it makes sense that these same cognitive abilities are put into use in the content of the experience, providing a more complex and varied experience.

The relationship of the Index with the duration of the OBE also makes sense if one assumes that the perception of a long-lasting experience is also part of the same cognitive process that allows the person to control the experience's content. If one can have at least some OBEs at will, one should be able to deploy those cognitive abilities not only to have the experience, but also to affect the experience's length.

Other analyses focused on psychological variables. Previous knowledge of OBEs as well as the source of the cases were not significantly related to the OBE Feature Index.

The purpose of these analyses was to explore if expectations or other psychological sets affected the content of the OBE. Future research in this regard could focus on groups of

people with particular beliefs. That is, instead of grouping OBErs, as I did, in relation to their having had previous knowledge or contact with parapsychology, it may be more profitable to group them according to specific practices or beliefs related to OBEs (spiritualism, theosophy). Another strategy would be to focus on the different techniques to induce the OBE discussed in the popular literature (e.g., Baker, n.d.; Muldoon & Carrington, 1929; for a review see Rogo, 1983). There are currently many books available and many individuals who teach "astral projection." It would be interesting to study those people who learn to have OBE by going through these training regimes and contrast their OBEs to those of people who have had no training, to those who follow a different system. In this way we may be able to assess the impact on the features of the experiences on learned behaviors arising from specific systems of induction or philosophical contexts.

OBE research could also benefit from more controlled methods of research, such as the induction of the experience in the laboratory (i.e., that of Palmer & Vassar, 1974; and Smith & Irwin, 1981). If OBEs can be induced, we may attempt to manipulate the content of the experience by suggestions presented to the participants. Similar work has been conducted with past life hypnotic regression in which the "recollections" and behaviors have been shaped by previous information presented to the study participants (e.g., Spanos, Menary, Gabora, Du Breuil, & Dewhirst, 1991). However, these designs present the problem of assessing how comparable these "simulations" in artificial environments are to the phenomenon as it occurs in a natural environment. Are the influences in the natural environment comparable to those manipulated in the laboratory? The laboratory manipulations may be much stronger than those found in other contexts, thus bringing into question the comparability of the results. Nonetheless, these methods

have a great potential to help us understand what variables may affect the OBE content, especially if different subtleties or degrees of influence are carefully assessed.

Other predicted positive correlations were concerned with different psychological variables. The OBE Feature Index was significantly related to absorption, but not to the two schizotypy scales. OBE frequency was correlated positively with absorption and with items of the PAS, but not with the STA. Finally, all the psychological measures were significantly and positively related to having the OBE at will. These results extended previous work relating OBE *incidence* to absorption (Alvarado & Zingrone, 1997b; Irwin, 1985a) and to schizotypy (McCreery & Claridge, 1995) to the content of the OBE. The PAS relationship with OBE frequency replicates conceptually the similar finding of McCreery and Claridge (1995). In addition, the findings of positive significant relationships between having an OBE at will and the three psychological variables offer evidence in support of the hypotheses presented in this study and in particular of the hypotheses of Blackmore (1986b, 1993, p. 180).

It is important to recognize that the schizotypy scales I used were comprised of parts of the standardized scales. Although I had some empirical criteria for item selection it is not possible to be sure that the discriminant validity of the scale was affected by its truncation. It is possible that the results would have been more robust if the whole scales had been used. Still, the results were consistent with those of McCreery and Claridge (1995), and show that further work on these variables and their relationship to the OBE is warranted.

Nonetheless, it is important to reiterate that the fact that the OBE is related to schizotypal measures is not necessarily evidence that a pathological component is involved in OBEs, nor that OBEs can necessarily be considered risk factors for



psychopathology. It is possible that schizotypy may be a personality dimension as opposed to a indicator of pathology. Claridge (1985) has argued that schizotypy may be related to the arousal mechanisms that control perceptual experiences. In his view, the schizophrenic's tendency towards hallucinations and delusions is precipitated by a weakness in the homeostatic mechanisms of the nervous system. But non-schizophrenic individuals may also show gradations of variations in the inhibitory mechanisms of their nervous system that may account for a higher frequency of OBEs and other hallucinations but without necessarily developing into pathology.

The index of claims of parapsychological experiences also correlated positively and significantly with OBE frequency and the ability to have an OBE at will. However, this was not the case for the OBE Feature Index.

Further discussion of all these psychological variables will appear in the last chapter of this thesis.

Finally, I found some interesting relationships between the index of changes after the OBE and several variables. As predicted, I obtained a positive and significant correlation with change after the OBE and the OBE Feature Index ( $r_s = .44$ ). That is, the more complex the experience, the more changes people experienced. This makes sense to the extent that a more elaborated experience could be more impressive than a less elaborated one. Religiosity was significantly and positively correlated to the change measure ( $r_s = .32$ ). It is possible that this was an after-effect of the experience or caused by later events because the question about religiosity did not focus on the time after the OBE. The measure of religiosity refers to the moment in which the participants filled their questionnaires.

In addition, the change index was also significantly correlated with absorption

( $r_s = .31$ ), OBE frequency ( $r_s = .22$ ) and OBE at will ( $r_s = .24$ ). Clearly the OBE Feature Index was the best predictor, suggesting that the complexity of the OBE had more to do with reported changes than did the other variables, although future research should address this problem using statistical techniques better suited to evaluate the contribution of specific predictors (multiple regression). It is interesting that, while absorption correlated significantly with the change measure, neither the PAS nor the STA did. This could mean that schizotypy is not an important variable for the impact of the OBE, but caution should be exercised in this interpretation until further work is carried out to replicate my work, and until it is clear whether the use of the complete scales is important.

Part 3:

The Psychology of

Out-of-Body Experiences

## VI. Psychological Correlates of Out-of-Body Experiences

In Part II of this thesis I focused on the features of OBEs. My purpose there was to study the incidence of specific features, and more specifically, to conduct a series of analysis to see if there were interactions between OBE features (e.g., distance from the body in relation to control of movements), or between OBE features and other variables (e.g., near-death vs. non-near-death circumstances; standing up vs. lying down). In Part III I will focus on the incidence of OBEs, as opposed to the features of the experience and more specifically, on psychological correlates of the experience.

In this chapter I will review a variety of lines of research that have explored psychological correlates of OBEs. This will set the context for the next two studies in which I have focused on personality and cognitive variables, among other psychological correlates of OBEs. The review will start with individual difference work with cognitive and personality variables. Later I will focus on the relationship of the OBE to other human experiences (e.g., drug use, dream and parapsychological experiences) and on psychiatric (e.g., psychoticism) and medical variables (e.g., epilepsy) that have clinical implications. Finally, I will present an overview of psychophysiological research for the purpose of completeness.

### Personality and Cognitive Variables

In a pioneering study using Tellegen's Differential Personality Questionnaire (DPQ), Irwin (1980) found a positive correlation between OBEs and absorption. Since then several other studies have been conducted to test this relationship. Most have replicated Irwin's initial finding (Alvarado & Zingrone, in press-b [two studies]; Irwin, 1981c [two studies], 1985a [three studies]; Glicksohn, 1990 [two studies]; Myers,

Austrin, Grisso, & Nickeson, 1983). However, other four studies have obtained non-significant results in the right direction (Alvarado & Zingrone, in press-b [one study]; Gabbard & Twemlow, 1984, p. 32; Glicksohn, 1990 [one study]; Spanos & Moretti, 1988). (Not included here is one of Irwin's [1985c] studies in which Tellegen's absorption scale was modified to measure "need for absorption"). Taken together, these studies show overall significance (Stouffer's  $z = 9.76$ ,  $p = 9 \times 10^{-23}$ ;  $r = .40$ ).<sup>1</sup> A study to be reported in the next chapter of this thesis will present a successful attempt to relate spontaneous OBEs to alteration of consciousness experiences occurring in daily life while individuals are involved in their usual tasks that are similar to some of the items of the absorption scale used in the previously mentioned studies.

Extraversion has not been found to relate to the OBE as assessed by scales of the Differential Personality Questionnaire (Irwin, 1980), or the Eysenck Personality Inventory (Irwin, 1985a, p. 201; McCreery & Claridge, 1995). However, the variables of "sensation seeking" and "danger seeking" have been found to relate to OBEs, to some extent. Using the Differential Personality Questionnaire, Gabbard and Twemlow (1984, p. 32) found lower levels of danger seeking in experiencers, although Irwin (1980) reported no significant relationship. The "risk taking" factor of the Jackson Personality Inventory has been positively related to OBEs (Myers et al., 1983). Finally, Zuckerman's Sensation Seeking Scale was not significantly related to OBEs (Glicksohn, 1990).

Using the Edwards Personal Preference Schedule, Irwin (1981b) studied need variables. Compared to the controls, the OBE group obtained lower scores in achievement and deference, but higher scores on intraception. Other traits were studied by Myers et al. (1983) using the Jackson Personality Inventory. In this study, the OBE was positively correlated to breadth of interest, innovation, responsibility, risk-taking, and

social participation, and negatively correlated with aspects of complexity and value orthodoxy. Myers et al. (1983) also used Rotter's Locus of Control Scale and found that OB-experients were significantly more internally focused than non-experients.

J.R. Hilgard's imaginative involvement scale correlated positively with the OBE (Hunt, Gervais, Shearing-Johns, & Travis, 1992). In addition, fantasy proneness has been consistently positively related to the OBE (Alvarado & Zingrone, 1994; Myers et al., 1983; Wilson & Barber, 1983). Although the data in Wilson and Barber's initial study were not analyzed statistically, my analyses contrasting the high and low fantasy-proneness group in relation to OBE incidence indicate their results were significantly different (Fisher's Exact  $P = .00002$ ,  $\phi = .60$ ).

Hypnotic susceptibility and dissociative experiences have also been found to relate to the OBE. Spanos and Moretti (1988) found significant positive relationships on the Stanford Hypnotic Susceptibility Scale (Form C), the Carleton University Responsiveness to Suggestion Scale, and Field's hypnotic depth inventory. Studies by Pekala and associates obtained significant differences of low magnitude when comparing OBE incidence across groups of high and low hypnotic susceptibility (Pekala, Kumar, & Cummings, 1992; Pekala, Kumar, & Marcano, 1995). In an experimental context, Palmer and Lieberman (1976) found that those subjects who reported OBEs after an induction procedure also obtained higher scores on Barber's Susceptibility Scale than those who did not report the experience. It is not clear if these results may be explained by the demand characteristics of the experimental situation.

Cardeña (1988) conducted an experimental study to investigate the phenomenology of deep hypnosis in relation to levels of physical activity. He found OBE-like sensations and other distortions of body image to be more common in deeper

levels of hypnosis. These experiences were also more frequent in participants in a state of quiescence (lying down) than in participants who were engaged in automatic or willful physical activity. The condition of automatic activity, however, produced a higher frequency of experiences than the willful ones.

The recent upsurge in dissociation research has included some studies related to OBEs. Sehardely (1993) used the individual case study approach to argue that both near-death experiences and OBEs may be interpreted as dissociative reactions to trauma. Other studies have focused on the Dissociative Experiences Scale. Richards (1991) reported significant positive correlations between the DES and incidence of spontaneous and voluntary OBEs (.37 and .43, respectively) in a group interested in spiritual and psychic phenomena. In my own non-thesis studies with a colleague, we have found marginally significant ( $p = .06$ ) positive relationships between dissociation and OBEs with a small group of college library employees (Zingrone & Alvarado, 1994). In a later chapter in this thesis I will report another study that found a positive and a significant correlation between OBEs and dissociative experiences in a sample of college students.

Although it was previously thought that imagery variables correlated with the OBE, research has not uncovered clear relationships. Two out of six studies in which the OBE was correlated to hypnagogic imagery found a significant relationship (Blackmore, 1983a; Glicksohn, 1989, 1990; McCreery & Claridge, 1996a). Regarding hypnopompic imagery, only one of Glicksohn's (1989, 1990) four studies conducted to test the relationship of this variable to the OBE was significant. While Glicksohn used questions previously used by other researchers, both Blackmore and McCreery and Claridge developed their own questions.

Using the Vividness of Visual Imagery Questionnaire (VVIQ), vividness of visual

imagery was found to be negatively related to the OBE in one study (Irwin, 1980), positively in another (Alvarado & Zingrone, 1994), and unrelated in a third (Irwin, 1981a, 1985a, p. 268). Blackmore (1982c) did not find significant differences between experiencers and non-experiencers using Bett's Questionnaire Upon Mental Imagery.

Measures of visualizer and verbalizer coding styles were not related to the OBE in studies conducted by Irwin (1980, 1985a, p. 270), who used Richardson's (1977b) short version of Paivio's (1971) Ways of Thinking Questionnaire. However, McCreery (1993) found that experiencers were predominantly visualizers. He devised his own imagery questions.

Others have explored the OBE's relationship to imagery control. Blackmore (1987) reported a positive relationship when subjects were asked to indicate how easily they could change their viewpoints in imaginal memory scenes. She wrote: "OBEs are better than others at switching from one viewpoint to another (especially to the viewpoint above the head), more proficient at producing clear and detailed images from different viewpoints, and [they] tend to use the observer viewpoint in dream recall" (p. 64). In other studies, however, in which Gordon's Control of Imagery Questionnaire was used no significant results were obtained (Blackmore, 1983b; Irwin, 1985a, p. 271). Finally, no significant relationships were found between OBEs and performance on the Necker Cube Fluctuation Test (Richardson, 1977a) (Cook & Irwin, 1983).

OB-experiencers were found to have better spatial abilities in a study conducted by Cook and Irwin (1983) using a device developed for the purpose. Blackmore (1983b) did not obtain significant relationships between spatial abilities and the OBE using the Space Relations Test of the Differential Aptitude Test battery. Although Gackenbach (1978) did not find a relationship between OBEs and scores on the Embedded Figures



Test, Hunt et al. (1992) found a positive relationship.

Overall, the best predictors of the OBE seem to be the intercorrelated cognitive variables dissociation, hypnotic susceptibility, absorption, and fantasy-proneness. Consistent patterns have not been found with personality variables, as seen in work with variables such as sensation seeking and extraversion. However, it should be kept in mind that only a handful of studies have been conducted that have attempted to relate the OBE to personality. Other personality variables will be discussed later in this chapter in the sections about psychiatric variables such as psychoticism.

### Experiential Variables:

#### Perceptual Distortions, Altered States, and Parapsychological Experiences

Several findings have supported the idea that persons who have had OBEs have also experienced a variety of hallucinatory and perceptual distortions. McCreery and Claridge (1995) found this to be the case when they tested OB-experients on scales measuring hallucinatory experiences, and with the Perceptual Aberration Scale. Blackmore's (1986a) findings have also supported this relationship. She found distortions of body image more frequent among OB-experients than among non-experiencers in samples of students and schizophrenics. Another study found a positive relationship between the OBE and hallucinatory experiences, and experiences of perceived changes in body size and floating sensations (Blackmore, 1984a). However, experiencers' awareness of somatic processes was not correlated to OBEs, as measured by the Body Consciousness Questionnaire (Miller, Murphy & Buss, 1981) (Irwin, 1985a, pp. 279-280).

McCreery and Claridge's (1996a) laboratory studies have also supported the

importance of perceptual distortions. In their study, OB-experients reported more hallucinatory experiences in response to physical and mental relaxation exercises than did non-experients. Those previously experienced in having OBEs also reported a higher rate of detachment from the body during the laboratory exercise. In the next chapter of this thesis I report research in which an attempt was made to conduct similar analyses.

Table 31 summarizes trends in survey studies that have assessed the relationship of the OBE to dream variables. Most of these variables have been consistent predictors of the OBE, particularly lucid dreams. In addition, Blackmore (1986b) found that persons who experienced deliberate OBEs, as compared to spontaneous ones, also reported higher frequencies of flying dreams and of the ability to choose a dream and to terminate dreams.

Table 31

## Relationships Between the OBE and Dream Variables

Study	Lucid Dreams	Dream Recall	Vivid Dreams	Flying Dreams
Blackmore, 1982b	s	s*		s*
Blackmore, 1982c				
Study 1	s	ns*		
Study 2	ns	ns*		ns*
Blackmore, 1983a	s			ns
Blackmore, 1984a	s	ns*	s*	s
Blackmore, 1986b	s			s
Drab (in Irwin, 1985b)				
Study 1	s			
Study 2	ns			
Study 3	s			

(Continues in the next page)

(Table 31: Continued)

Study	Lucid Dreams	Dream Recall	Vivid Dreams	Flying Dreams
Gackenbach, 1978	s			
Glicksohn, 1990				
Study 1	s	ns		
Study 2	s	ns		
Study 3	s	ns		
Irwin, 1983	s			
Irwin, 1986	s			
Kohr, 1980	s	s	s	
Myers, 1982	ns			
Olsen, 1988		s	s	
Palmer, 1979a				
Students	ns	ns	ns	
Townspeople	s	ns	s	
Usha & Pasricha, 1989b	s	ns		
Wiedman & Haraldsson, 1980	s	ns		
Stouffer z	11.50	2.05	5.04	6.22
p =	$7 \times 10^{-31}$	.02	$2 \times 10^{-7}$	$2 \times 10^{-10}$
Mean r	.25	.04	.16	.33

**Note:** With the exception of two of Glicksohn's studies of dream recall (1 and 3) none of the relationships are negative. S stands for significant and NS for nonsignificant. Missing spaces indicate that the relationship was not explored in the study. The asterisk indicates analyses done with chi-squares having more than two degrees of freedom. These results have not been included in the combined analyses reported at the bottom of the table.

Although having had an OBE at least once has not been found to be significantly related to the results of experimental ESP testing (Alvarado et al., 1996a; Blackmore, 1982c), the experience has been positively related to claims of spontaneous ESP

experiences (Alvarado & Zingrone, 1994; Blackmore, 1984a; Green, 1967; Hunt et al., 1992; Irwin, 1985a, p. 290; Kohr, 1980; Myers, 1982). One of the studies reported in this thesis also obtained similar positive relationships as regards the OBE and claims of spontaneous ESP experiences. Significant positive relationships between the OBE and indices of a variety of parapsychological claims (Glicksohn, 1990, 2 out of 3 studies), and such specific experiences as seeing apparitions (Alvarado & Zingrone, 1994; Myers, 1982) and auras (Alvarado & Zingrone, 1994) has also been found. Mystical experiences have also been consistently and positively related to the OBE (Blackmore, 1984a, 1986b; Hunt et al., 1992; Kohr, 1980; Myers et al., 1983; Palmer, 1979a; Wiedman & Haraldsson, 1980). Nonetheless, Spanos and Moretti (1988) did not find such a relationship when they used Hood's (1975) mysticism scale. (Combined analysis for mystical experiences: Stouffer's  $z = 7.21$ ,  $p = 3 \times 10^{-13}$ ,  $r = .21$ )

### Practices: Use of Drugs and Practice of Mental Disciplines

Tart (1971) conducted a survey in which he found that the frequency of OBEs is significantly higher after using marijuana than before. Some studies with student samples have found positive correlations between psychedelic drug use and OBEs (Blackmore & Harris, 1983; Myers et al., 1983; Palmer, 1979a; Usha & Pasricha, 1989b). This relationship has not been found, however, with non-student samples (Kohr, 1980; Palmer, 1979a) (Combined analyses for drug experiences: Stouffer's  $z = 4.69$ ,  $p = 1 \times 10^{-6}$ ;  $r = .14$ ).

With a few exceptions (Gabbard & Twemlow, 1984; Palmer, 1979a), the practice of meditation and of similar disciplines have generally been positively related to the OBE (Hunt et al., 1992; Kohr, 1980; Myers et al., 1983; Palmer, 1979a; Usha & Pasricha,

1989b). (Combined analyses for meditation and similar disciplines: Stouffer  $z = 5.74$ ,  $p = 5 \times 10^{-9}$ ;  $r = .15$ ).

It is clear then that both the use of mind-expanding drugs and the practice of meditation are related to the OBE. These practices, in turn, may be related to the openness to experience that appears to characterize absorption and dissociation, variables that are correlated to the OBE.

### Developmental Variables

Initial research by Stanford (1987) uncovered significant positive correlations between OBEs while awake and reports of time spent reading or being read to during childhood, and between OBEs while falling asleep and reports of time spent playing with imaginary playmates. Further analyses of the same data showed similar findings when only OB-experiencers were assessed. No significant relationships emerged with spankings or deprivation during childhood. A later study (Stanford, 1994) failed to replicate the initial findings, however.

Irwin (1996) did not find a significant relationship between OBEs and a scale of his own creation that measured parental support of imagination and other activities in childhood. However, he reported significant positive associations with subscales of the Survey of Traumatic Childhood Events, namely, intra-familial sexual abuse, extra-familial sexual abuse, extra-familial assault, death or illness of a close friend, and isolation from friends and playmates. These findings are similar in some respects to work conducted with near-death experiencers (Irwin, 1993; Ring, 1992).

Stanford's initial finding and Irwin's study are both promising and deserve to be replicated. But the dearth of studies in this area make generalization of results too

speculative and premature.

### Medical and Physiological Variables

Although some have speculated that OBEs are related to headaches (Comfort, 1982; Lippman, 1953) and temporal-lobe epilepsy (Eastman, 1962; Persinger, 1983) practically no research work has been conducted to test these ideas. In an early study presenting only descriptive information Green (1967) found that 11% of her OBE-experiencers suffered migraine headaches. Irwin (1983) found a positive relationship between OBEs and a general tendency to have headaches in three out of four surveys. However, further analyses revealed that the association may have been caused by a confound with lucid dreams. That is, Irwin found that headaches were related to lucid dreams, and OBEs were related to headaches through their relationship to lucid dreams. Although Spanos and Moretti (1988) found a positive association with psychosomatic symptoms, Gabbard and Twemlow (1984, p. 31) did not.

Penfield and Jasper (1954) were able to elicit OBE sensations by electrical stimulation of the temporal cortex, but little empirical evidence since then has supported an association between temporal lobe symptomatology or epilepsy and the OBE. McCreery (1993) did not find a relationship, although his participants included few diagnosed epileptics. Kennedy, Kanthamani and Palmer (1994) found a significant positive correlation between a shortened version of a subscale of the Personal Philosophy Inventory that measures temporal lobe symptomatology (Persinger & Makarec, 1987) and a general parapsychological experiences item that included OBEs with other phenomena. Unfortunately, since these researchers included both OBEs and other parapsychological experiences in the same question, it is not possible to isolate the actual

relationship between the OBE and the temporal lobe signs measure. Persinger (1995) found a positive correlation between complex partial epileptic-like signs as measured by a subscale of his Personal Philosophy Inventory and reports of experiences of leaving the body and feeling detached from it in the laboratory. Interestingly, the relationship interacted with measures of global geomagnetic activity.

A recent paper suggested that OBEs, like some autoscopic hallucinations (or visual hallucinations of the self), are related to brain hemisphericity (Brugger, Regard, & Landis, 1996). In a comparison of 13 cases of unilateral autoscopy to 27 cases of OBEs, the authors found different hemispheric emphases between groups. The majority of the autoscopic experiences occurred in the left visual field (85%), and most of the OBEs were perceived in the right visual field (63%). I analyzed the descriptive presentation of this data and found a significant difference (Fisher's Exact  $P = .005$ ). One hopes further work will be done along these lines but with higher numbers of cases, and with some consideration of the consistency of, or variations across, multiple OBEs.

Although the work of Persinger and Brugger and colleagues is promising, no evidence exist at present which consistently relates the OBE to medical variables.

### The OBE and Psychopathology

Little empirical evidence exists that associates the OBE with psychopathology. A major exception is the study by McCreery and Claridge (1995) in which OBEs were related to scores on several schizotypy scales. However, the authors used Claridge's (1985) model of schizotypy in which a distinction is made between schizophrenia as a process of psychological deterioration and schizotypy as a personality trait. Claridge's model may be related to some psychological models of OBEs which assume that the

organism's ability to produce the experience is related to other phenomena such as alterations of consciousness and unusual styles of perceptual processing (Blackmore, 1984a; Irwin, 1985a; Palmer, 1978b). In addition, McCreery and Claridge (1995) found that OB-experiencers scored lower on a measure of physical anhedonia than non-experiencers. The authors described the experiencers as "happy schizotypes", considered to be "functional despite, or perhaps even in part because of, his or her anomalous experiences" (p. 142). More research is needed to allow us to fully interpret the relationship of schizotypy to OBEs.

In Irwin's (1980) initial study he found that OB-experiencers had higher scores than an estimate of general population scores on the Stress Reaction Scale (related to neuroticism) of Tellegen's personality questionnaire. However, other studies have failed to relate the OBE to such measures as Cattell's 16PF Questionnaire (factors of Anxiety and Ergic Tension) (Gackenbach, 1978), the Anxiety scale of the Jackson Personality Inventory (Myers et al., 1983), Caine's Hysteroid Scale (Gabbard & Twemlow, 1984), the Neuroticism scale of Eysenck Personality Inventory (Irwin, 1985a, p. 201; McCreery & Claridge, 1995; Spanos & Moretti, 1988). In this thesis I later present an unsuccessful attempt to relate the Neuroticism factor (and facets) of the NEO-PI-R to OBEs.

Although measures of, or related to, psychoticism have failed to differentiate OB-experiencers from non-experiencers (Gabbard & Twemlow, 1984; Irwin, 1980; McCreery & Claridge, 1995), a recent study did find that scores on a variety of schizotypy scales were positively related to OBE reports (McCreery & Claridge, 1995).

McCreery (1993) did not find any relationships between OBEs and his participants' psychiatric history. Gabbard and Twemlow (1984), in a study conducted with the Profile of Adaptation to Life Questionnaire, concluded that "the OBE group was



significantly healthier than a variety of other normative groups in the population and did not have the constellation of symptoms often equated with character disorders, such as psychosomatic disorders, alcohol and drug abuse, or stimulus seeking” (p. 32). They have also argued that such phenomena as depersonalization, autoscopy and body boundary psychotic experiences are phenomenologically different from the OBE (see also Twemlow, 1989; a similar analysis has been presented by Irwin, 1985a). However, no one to date has conducted empirical studies that differentiate the OBE from those other phenomena in terms of phenomenology, antecedents, demographics, or other variables.

Finally, Spanos and Moretti (1988) did not find a relationship between OBEs and depressive affect. Likewise, Tobacyk and Mitchell (1987) found no differences between experiencers and non-experiencers on such measures of adjustment as death orientation, defensive style, narcissism, self concept, or social desirability.

### Psychophysiology

Most of the psychophysiological work has been conducted with individuals who claim to be able to induce the OBE at will. The first such study was conducted with Robert Monroe, a well known OB-experient, as the subject (Tart, 1967). Tart reported that Monroe spent considerable time during his OBEs in borderline states characterized by alphoid and high amplitude theta waves and Stage 1 EEG patterns, with few eye movements and normal heart activity. In a later study Monroe showed a Stage 1 EEG pattern, theta activity, and a fall in systolic blood pressure during the first of two OBEs (Tart, 1969b). The second OBE occurred after EEG shifts between Stage 1 and Stage 2 sleep. No changes in cardiac activity were recorded.

In later studies with Monroe as the subject, EEG amplitude differences between

hemispheres were reported. Lower EEG frequencies were recorded during the OBE than during the periods either before and after it. These recordings were described as ranging between 4 and 5 Hertz (Gabbard & Twemlow, 1984, p. 208), and as “being much less on the right side of his brain than on the left side” (Twemlow, 1977, p. 280). In another study reported by Tart (1968), with a different subject, it was found that during OBEs the subject’s EEG showed an alphoid pattern (7-8 Hz). There was no REM nor changes in heart and galvanic skin response activity.

Osis and Mitchell (1977) compared the EEG of self-proclaimed psychic Ingo Swann by taking measurements both before and during his OBEs. The mean EEG amplitude during the OBE period was less than that recorded during the non-OBE period in both the right and left occipital lobes. There were no significant differences in alpha amplitude between OBE and non-OBE periods.

Another study with yet another individual compared changes in physiological variables from a preliminary baseline period, to a relaxation period to an OBE period, and to two relaxation and two OBE periods in each session (Morris, Harary, Janis, Hartwell, & Roll, 1978). Skin potential decreased during the OBE, while respiration and heart rate increased. No significant changes were found in eye movements, plethysmographic readings, EMG, or EEG (alpha frequency and percent of time). In addition, the measurements of the first and the second relaxation periods and the first and second OBEs did not differ.

Palmer (1979b) induced OBEs in subjects who had never had the experience before. His procedure was also novel in that he attempted to correlate EEG measures to questionnaire data on experiences and expectations at different times during the study. There were no significant correlations. However, it was reported that “the three subjects

who had more than 30 per cent theta in their baseline EEGs all reported rather strong OBEs” (p. 138).

In another study of induced OBEs conducted by different researchers with a single female participant, no alpha activity was recorded. Rather the recording resembled a Stage 3 sleep pattern, described as a “transitional theta-delta band [in which the subject] retains a greater degree of conscious awareness than is usual for this Stage 3 sleep state” (Gabbard & Twemlow, 1984, p. 219).

Krippner (1996) reported a study with a subject who claimed to have occasional OBEs. The subject participated in a four-night study conducted in a dream laboratory during which his EEG pattern was measured. In the morning after the fourth night the subject reported having had an OBE. The EEG record showed “an unusual pattern of slow brain waves in the theta and delta frequencies” (p. 90) that interrupted REM sleep.

McCreery and Claridge (1996b) did not study the psychophysiology of OBEs as they occurred in the laboratory, but compared individuals who had experienced spontaneous OBEs to individuals who had never had the experience using physiological measures. The OBErs were found to have higher rates of activation of the right hemisphere, higher EEG amplitude coherence between the hemispheres, and a higher rate of lability in skin conductance level than the non-OBE controls.

The results of these studies are difficult to evaluate because different measurement methods were used and different relationships were sought. In addition, some of the techniques used to induce an OBE may have confounded the interpretation of psychophysiological results. In general, there seems to be a tendency for relaxation or low arousal states during the OBE, and no REM, but further research is needed.

## Present Studies

The rest of this section of the thesis consists on two studies attempting to relate spontaneous OBEs to psychological variables. The first includes absorption experiences, the five factors of personality of the NEO-PI-R, and dream and parapsychological experiences. The second, focuses on the relationship of OBEs to spontaneous dissociative experiences reported to occur in daily life.

### Note

1. This, and the following analyses, are frequently based on lower estimates. Consequently, they should be interpreted as a conservative approximation of overall probabilities and effect sizes. The  $r$  is based on the Fisher  $z_r$  transformation (Rosenthal, 1991). Gabbard and Twemlow (1984) and Spanos and Moretti (1988) did not report  $p$  values. Consequently, I have assumed a  $z$  value of 0 for these studies.

I have limited my statistical analyses to specific areas of research that had at least five studies.

## VII. Out-of-Body Experiences, Alterations of Consciousness and the Five-Factor Model of Personality

As seen in the previous review chapter (and in Chapter 5) recent studies of out-of-body experiences (OBEs) have followed a psychological approach, that is, they have tried to relate the experience to cognitive and personality variables (for reviews see Alvarado, 1986b, 1992; and Irwin, 1985a). Correlating the OBE to these variables — including absorption, fantasy proneness (Myers, Austrin, Grisso, & Nickeson, 1983) and schizotypy (McCreery and Claridge, 1995) — is important because it contextualizes the OBE as one among many dimensions of human experience. This approach, in turn, allows us to develop models to both predict and explain the OBE and its characteristics. Examples here are the models proposed by Blackmore (1984b) and Irwin (1985a), which I summarized in Chapter 1. Part of the research reported in the present study follows this psychological approach but is different from most previous studies in that we attempt to relate spontaneous experiences to laboratory ones. My study uses the questionnaire information collected by researchers at the Koestler's Chair of Parapsychology in the Department of Psychology at the University of Edinburgh during a previously reported ESP experiment in the ganzfeld (Morris, Dalton, Delanoy, & Watt, 1995). The ganzfeld is a partial sensory deprivation procedure that has been used frequently in ESP testing during the last two decades or so (Bem & Honorton, 1994). The present study, however, was not related to the ESP part of the investigation.

### Cognitive Variables and Altered States of Consciousness

As discussed in the previous chapter, past research (Alvarado & Zingrone, 1997b; Glicksohn, 1990; Irwin, 1980, 1985b; Myers et al., 1983) has shown that OBEs are

positively and significantly related to Tellegen's Absorption Scale (Tellegen & Atkinson, 1974) and to hallucinatory experiences (Blackmore, 1984a; McCreery & Claridge, 1995). These relationships are consistent with Blackmore's (1984b) model in which she argued that the OBE represents a restructuring of an individual's cognitive map, that is, of their customary way of perceiving reality. For Blackmore, the OBE is only one such map. Other maps may be the normal state of consciousness, lucid dreaming and a variety of other alterations of consciousness such as mystical experiences. The map prevalent at any particular time may be disrupted by a variety of biological and psychological factors that affect the organism. It is assumed, however, that the predispositions of some individuals facilitate that shift, determining the stability of specific cognitive maps. In keeping with Blackmore's model, I argue that alterations of consciousness (or new cognitive maps) which occur in daily life should happen more frequently to individuals who have had OBEs than to those who have not had the experience. That is, Blackmore's model implies that OB-experients can change their cognitive maps more easily than non-experients, producing a wide variety of phenomena among which lucid dreams, mystical experiences, hallucinations and perceptual distortions may be included. I decided to test this aspect of Blackmore's model by postulating positive relationships between OBEs and other spontaneous experiences. One of the questionnaires used in the ganzfeld study (to be discussed later) included some questions that, on face value, seemed to relate to absorption. Participants were asked to rate their experiences both of losing awareness of surroundings, and of losing awareness of the passage of time during an activity (the actual questions used in the study are presented in Appendix 6). If Blackmore's model is valid we should find that those individuals who have OBEs experience other alterations of consciousness more frequently than individuals who have had no OBEs.

With some exceptions (e.g., Blackmore, 1982c; Cook & Irwin, 1983; Irwin, 1981c; McCreery & Claridge, 1996a, 1996b), most of the modern OBE studies have not tried to relate spontaneously occurring OBEs to the outcome of laboratory non-OBE tasks (I am excluding from consideration here the ESP, detection, and psychophysiological correlate studies of the OBE reviewed by Alvarado, 1982a, 1982b; Blackmore, 1982a; and by Irwin, 1985a). However, such an approach to the study of human experience is common in other areas of psychology, for example in studies of absorption (Qualls & Sheehan, 1981), schizophrenia (Granholm, Asarnow, & Marder, 1996), and hallucinations (Kunzendorf, Moran, & Gray, 1995-96), among others. Following recent recommendations on the integration of “real-life” and laboratory anomalous phenomena (Alvarado, 1996), I attempt to relate spontaneous OBEs to laboratory-induced alterations of consciousness. Another of my hypotheses also follows Blackmore's model. Since all the participants in this study went through the ganzfeld procedure and, after the session, rated the degree of alteration of consciousness they experienced, I predicted that OB-experients would claim higher rates of alterations of consciousness in the ganzfeld than would the non-OB-experients. In accord with Blackmore's model then, I assumed that the occurrence of OBEs may indicate a natural capacity for alteration of consciousness, that is, an ability or predisposition to shift one's cognitive map in response to special internal or external circumstances. If this is true, it should be found that OB-experients are able to alter their consciousness in an artificial situation such as the ganzfeld to a higher degree than non-OBE-experients. Of course, such natural abilities may not necessarily transfer to an artificial setting.

The idea that laboratory measurements and experiences can differentiate statistically those who have had OBEs from those who have not had OBEs was supported

by the pioneering work of McCreery and Claridge (1996a, 1996b). In one of their studies McCreery and Claridge (1996a) required OBErs and non-OBErs to complete physical and mental relaxation exercises as well as an imagery task which consisted of imagining yourself floating above the body. The OBErs reported more hallucinatory experiences than did the controls. In addition, persons who had had OBEs prior to participation in the study, also reported more experiences of detachment from the body during the experimental procedure. They also reported a higher rate of physical and mental relaxation during the exercises than the controls.

Along the lines of the previous prediction, I expected a positive correlation between the ratings of alteration of consciousness in the ganzfeld and the responses to two questions which dealt with spontaneous alteration of consciousness (for the content of the questions see Appendix 6). I feel that analyses of the predictors of alterations of consciousness in the ganzfeld are necessary to understand the ganzfeld *experience* as an altered state of consciousness and, eventually, to understand the effects of that altered state on other phenomena. In addition, I hoped that findings consistent with our hypotheses would eventually allow us to predict the degree of alteration of consciousness to be experienced in the Ganzfeld from the psychological characteristics of the participants. Such predictions would surely be useful in the selection of participants for our experiments who have the ability to enter pronounced altered states of consciousness in artificial settings.

In addition, in accordance with Blackmore's model and with findings reported in previous studies (e.g., Blackmore, 1982c, 1984a; Palmer, 1979a), I predicted a positive relationship between OBEs and lucid dreams.



### Personality Variables

As argued in the previous chapter, significant associations have been found between OBE incidence and absorption as measured by one of the main scales of Tellegen's Differential Personality Questionnaire (e.g., Irwin, 1980; Myers et al., 1983). Irwin (1980) reported that the OBE-experiencers in his sample were higher in neuroticism than the general population, and McCreery and Claridge (1995) recently reported consistently higher scores in schizotypy scales in OBEs than in non-OBEs. However, other studies have not found any relationship with neurotic or psychotic variables (Gabbard & Twemlow, 1984). Although Myers et al. (1983) found an association between OBEs and the risk-taking factor of Jackson's Personality Inventory, other researchers have not found relationships with varied measures of danger-seeking (Gabbard & Twemlow, 1984; Irwin, 1980). Clearly, we need to follow-up leads uncovered by the early research and expand on previous findings with well-validated instruments. This study is an attempt to do just that.

In recent years, the five factor model of personality has received much attention (Digman, 1990). The model has risen to an influential position in many areas of psychology through the proliferation of the NEO Personality Inventory (Churche & Burke, 1994; Costa & McCrae, 1992a, 1992b; Costa & Widiger, 1994; Miller, 1991). The model proposes that there are five basic factors of personality: neuroticism, extraversion, openness, agreeableness, and conscientiousness. I attempted to relate these five factors and their 36 facets, as measured by mean scores on the revised version of this inventory, the NEO-PI-R (Costa & McCrae, 1992b), to OBEs. I was particularly interested in potential relationships between the factor of openness and psi experiences. The openness dimension is said to include "active imagination, aesthetic sensitivity,

attentiveness to inner feelings, preference for variety, intellectual curiosity, and independence of judgment” (Costa & McCrae, 1992b, p. 15). In addition, individuals who are rated as open “are curious about both inner and outer worlds, and their lives are experientially richer. They are willing to entertain novel ideas and unconventional values, and they experience both positive and negative emotions more keenly than do closed individuals” (Costa & MacRae, 1992b, p. 15).

Conceptually, the characteristics of openness may be related to absorption which is comprised of a variety of attentional and altered state experiences measured by Tellegen's Absorption Scale (Tellegen & Atkinson, 1974). In fact, there is empirical evidence that openness, as measured by the NEO-PI-R, is related to absorption, as measured by Tellegen's scale (Gliski, Tataryn, Tobias, Kihlstrom, & McConkey, 1991; Radtke & Stam, 1991; Wild, Kuiken, & Schopflocher, 1995). Because absorption has been related to the OBE in previous studies (e.g., Alvarado & Zingrone, 1997b; Glicksohn, 1990; Irwin, 1980; Myers et al., 1983; for a review see the previous chapter of this thesis), I predicted a positive correlation between openness to experience and OBE reports. The prediction is also consistent with a variety of findings in OBE research (such as the correlation of OBE reports with lucid dreams, mystical experiences, psychic experiences and vivid dreams) which suggest that those individuals who are “open”, or who are comfortable with a wide variety of cognitive experiences, are also those who have OBEs (Alvarado, 1986b; Irwin, 1985a; see also the review in the previous chapter).

The Openness factor of the NEO-PI-R has six facets, one of which may also be a good predictor of the OBE. The Fantasy facet is described in the NEO-PI-R manual as follows: “Individuals who are open to fantasy have a vivid imagination and an active fantasy life. They daydream not simply as an escape but as a way of creating for

themselves an interesting inner world. They elaborate and develop their fantasies and believe that imagination contributes to a rich and creative life” (Costa & McCrae, 1992b, p. 17). This facet of the Openness factor seems conceptually related to the construct of fantasy-proneness (e.g., Lynn & Rhue, 1986; Wilson & Barber, 1983), in that vivid imagination and an active fantasy life are main components of both constructs. Because previous research has reported positive associations between fantasy-proneness and the OBE (Alvarado & Zingrone, 1994; Myers et al., 1984; Wilson & Barber, 1983) I hypothesized that the Fantasy facet of the Openness Factor would correlate positively with our measure of OBEs.

### Parapsychological Experiences

Previous studies mentioned in the previous chapter have shown positive relations between the OBE and parapsychological experiences. This is the case, for example, of claims of spontaneous ESP (e.g., Alvarado & Zingrone, 1994; Blackmore, 1984a; Green, 1967; Kohr, 1980). In some studies the OBE has been related to specific phenomena such as apparitions and auras (Alvarado & Zingrone, 1994) and to indexes of different ESP phenomena (Glicksohn, 1990). Consequently, I attempted to replicate this relationship in this study by forming an index of parapsychological experiences and comparing the frequency of these claims in groups of OBEs versus non-OBEs.

### Exploratory Analyses

I also performed several other exploratory analyses to see how the OBE related to other questions included in the participant's information form. The questions I was interested in included aspects of ganzfeld mentation (amount, reference to external

events, mundane and bizarre content, and lability or the changes and transformations of the images), dreams, fantasy, imagery, practice of mental disciplines, and the presence of a family environment conducive to claims of psi phenomena. In addition, I attempted to relate the OBE to a measure of self-rated creativity level developed by Kathy Dalton, a member of the ganzfeld research team of the Koestler Chair of Parapsychology.

### Summary of Hypotheses

To summarize my hypotheses, I predicted positive relationships between OBEs and the following variables:

1. Spontaneous alteration of consciousness in the form of losing track of the surroundings and of the sense of time while engaged in an activity (two questions);
2. Alterations of consciousness in the ganzfeld (in terms of depth);
3. Lucid dreams;
4. The Openness to Experience factor and its Fantasy facet of the NEO-PI-R;
5. An index of claims of psi experiences.

In addition, I expected to find a positive correlation between spontaneous alterations of consciousness and alterations of consciousness in the Ganzfeld.

## Method

### Participants

Ninety-seven participants were used in the study. They were recruited from art and music colleges and from other groups in the city of Edinburgh whose membership included a high numbers of artists and musicians. Fifty-two women and 45 men were

tested. The mean age of the participants was 27, with a range from 17 to 61. Preselected on the basis of presumed artistic talent, previous spontaneous psi experiences, and a positive attitude towards the existence of psi phenomena, all of the participants came to the laboratory facilities at the Koestler Chair of Parapsychology knowing they would be involved in an ESP experiment and that they would also complete several questionnaires.

### Procedure

All subjects were greeted warmly by two of the original researchers and taken to a lounge for a general talk that lasted about 30 minutes. The original researchers were, in alphabetical order: Kathy Dalton, Deborah Delanoy, Robert L. Morris, and Caroline Watt. Prior to the ganzfeld session each participant had completed a personality inventory known as the NEO-PI-R, the Participant Information Form generally used in research at the Koestler Chair, and a questionnaire on creativity developed in house by one of the original researchers (Kathy Dalton). After this the participants were taken into the ganzfeld suite, where they completed a 15 minute progressive relaxation exercise, and experienced the 30 minutes of white noise and partial visual sensory deprivation which is standard to the ganzfeld. Soon after this procedure, the ESP test was conducted, as described in the original report (Morris et al., 1995).

After the Ganzfeld session was completed, participants were asked several questions about their Ganzfeld experience and the depth of their consciousness alteration. The experimenters privately rated aspects of each participant's imagery and mentation, including estimates of the relative amount of mentation, and the mundane or bizarre quality of the imagery, among other variables. After these ratings were complete, the participants judged their ESP targets. The ESP part of the experiment will not be

considered in the present study because the focus here is on personality and cognitive variables relevant to Blackmore's OBE model.

### Questionnaires

I will limit the discussion of the paper and pencil instruments given to only those related to the analyses reported in this paper. The Participant Questionnaire (PQ) was developed by the staff of the Koestler Chair of Parapsychology drawing largely from the Participant Information Form developed by Charles Honorton and his associates for their experimental research program of ESP during the ganzfeld (Honorton, 1992; Honorton, Berger, Varvoglis, Quant, Derr, Schechter, & Ferrari, 1990). The PQ is used in the Koestler Chair to collect general information about the participants' demographics, background and experiences. It contains 77 items, many of which have sub-sections. Some of the questions are about spontaneous psi experiences, alterations of consciousness, beliefs in psi, and practices related to meditation and self-exploration. Question number 75 asks: "Have you ever had an experience in which you felt as if your consciousness was separated from your physical body?" The participant was asked to tick a box along a 7 point scale ranging from "yes" to "no", with the option of "uncertain" in the middle. I decided to use only those participants who chose "yes" (a score of seven) or "no" (a score of one) in the analyses related to the OBE question and to the questions about claims of psychic phenomena because I felt that it was conceptually problematic to interpret the middle range of scores, all of which reflected levels of participant uncertainty. The ambiguity of the response format, I felt, would complicate the interpretation of an already ambiguous question as well as artificially inflate the results of the analyses. That is, because a score of four was assigned to an answer that did not

necessarily represent frequency or intensity, but more likely expressed some level of doubt, I felt resulting correlations would not be easily or precisely interpretable. My decision to select only the “yes” and “no” answers reduced the number of data points at my disposal and forced me to use less sensitive statistical tests when analyzing the relationships of the variables in questions. The decision did, however, allow me to be more clear about the meaning of the relationships I found because I only contrasted unequivocal “yes” responses with unequivocal “no” responses.

Some of the seven point response scales in the questionnaire were reversed during data entry so as to maintain a positive range of 1-7 as opposed to a negative one of 7-1. Only selected questions of the PQ were used. With the exception of yes/no questions about lucid dreams, having been raised in an environment with a tradition of paranormal abilities, and the practice of mental disciplines, the rest of the questions were arranged along seven point scales. Appendix 6 includes the questions used to test the study's hypotheses. The questions about parapsychological experiences were preceded by a short definition of the terms in question.

In addition to the PQ, data was coded from the Creativity Questionnaire. The questionnaire has six questions about creativity or artistic abilities, a sense of competitiveness, self-confidence in one's work, and approaches towards problem solving. From this questionnaire I selected only the item that dealt with the self-rating of creative or artistic abilities. The response scale for this item ranged from one to ten with one being an absence of creative or artistic abilities and ten being the highest level of the presence of the same. This item, presented in Appendix 6, was used at face value since there have been no attempts to study its validity.

Another two-part questionnaire developed in-house, the Edinburgh Autoganzfeld

Experimental Questionnaire (EAEQ), was used to evaluate aspects of the participant's mentation and to probe for differences in imagery and alteration of consciousness during the ganzfeld. Part one of the EAEQ is made of seven questions, most of them about imagery in the ganzfeld. One question, however, is a self-rating by the participant of the perceived level of alteration of consciousness. The latter question was used in the present study (see Appendix 6 for item content). Also included in the EAEQ are six questions about the subject mentation and three additional questions that focus on target correspondences (the ESP part of the study not relevant for the present study). I used only four questions, that is, the items that assessed relative amount of mentation, external/cognitive references in the mentation, mundane/bizarre content of imagery in mentation, and the amount of frequent topic/image changes in the mentation, or lability. These four questions, completed by the experimenter before target judging, were assessed as follows. Amount of mentation was rated along a three point scale, and the other questions were assessed using a seven point scale from zero to six. To facilitate the analyses, at the point of data input I added a constant of 1 to each score, changing the scale from 0 to 6 to 1 to 7.

Finally, participants answered the NEO-PI-R (Costa & McCrae, 1992b), a 240-item questionnaire developed through factor analytic methods to measure five factors of personality, namely: neuroticism, extraversion, openness, agreeableness, and conscientiousness. Each of its five factors is formed of six facets, or traits. Participants answer the scale on a five point scale ranging from "strongly disagree" to "strongly agree." The NEO-PI-R has a considerable literature showing good validity, reliability and a robust factorial structure (Churche & Burke, 1994; De Raad & Szirmák, 1994; McCrae & Costa, 1997; McCrae, Zonderman, Costa, Bond, & Paunonen, 1996; for



reviews see Costa & McCrae, 1992b; and Kline, 1993). A recent study showed that samples of participants from China, Germany, Israel, Korea, Japan, and Portugal had high levels of congruence with an American sample, adding to the already existing wide literature regarding the validity of the factorial structure of this test (McCrae & Costa, 1997).

### Analyses

Data analysis was conducted using mainly Mann-Whitney U Tests, as well as chi-square tests and Spearman Rank Order correlations. An alpha of .05 (1-tailed) was set for the predicted analyses, and an alpha of .01 (2-tailed) for the rest. To calculate an effect size measure from the z values produced by the Mann-Whitney U program, I used the formula presented in Chapter 3.

## Results

### Incidence of OBEs

Out of the 66 participants who answered “yes” or “no” to the OBE question, 42 (64%) answered the question positively and 24 (36%) negatively. These replies represent 43% and 25% of the original sample of 97 participants, respectively.

### OBEs and Spontaneous Alterations of Consciousness

Table 32 (on the next page) shows the analyses of my hypotheses which test aspects of Blackmore’s OBE model. In accordance with my predictions, OB-experients reported significantly higher frequencies of spontaneous alterations of consciousness than participants who did not claim OBEs.

Table 32

Relationship Between Mean Rates of Spontaneous Alterations  
of Consciousness and OBEs

Alteration of Consciousness	OBE N=41	Non OBE N=24	Mann-Whitney U z	p(1t)	es
Lost awareness of surroundings when involved in activity	4.95	4.00	2.26	.01	.55
Lost sense of time when involved in activity	5.12	4.50	1.75	.04	.43

### OBEs and Alteration of Consciousness in the Ganzfeld

I predicted that OBEs would have higher levels of alterations in their state of consciousness during the Ganzfeld than non-OBEs. When I contrasted OB-experients (N = 41, Mean = 7.07) to non-experients (N = 24, Mean = 6.50), however, the differences were not significant using the Mann-Whitney U test,  $z = 1.16$ ,  $p = .12$ ,  $1t$ ,  $es = .30$ ). Other non-significant analyses of the relationship of OBEs to aspects of the Ganzfeld experience appear on Table 33 (on the next page).

### Laboratory and Spontaneous Alterations of Consciousness

I also predicted that reports of spontaneous alterations of consciousness (losing

Table 33

Mean Ratings of Relationship Between OBEs and Aspects of Ganzfeld Experience

Ganzfeld Experience	OBE N = 41	Non-OBE N = 24	Mann-Whitney		es
			U	z	p(2t)
Amount of mentation	2.12	1.91*	.90	.37	.23
External/cognitive references in mentation	3.14	2.88	.22	.82	.06
Mundane/bizarre content of mentation	4.31	4.21	.65	.52	.17
Changes and transformation in mentation	4.34	4.17	.27	.79	.07

\*For the comparison of "amount of mentation", the N for the Non-OBEs was 23.

awareness of surroundings and losing sense of time while engaged in activities) would correlate positively with subject-rated alteration of consciousness in the ganzfeld. Although the correlation with losing awareness was not significant ( $r_s(94) = .05, p = .30, 1t$ ), the correlation with losing sense of time was ( $r_s(93) = .20, p = .02, 1t$ ). Losing awareness of surroundings and losing sense of time correlated significantly with each other ( $r_s(94) = .68, p < .000001, 2t$ ).

### OBEs and Lucid Dreams

Out of 41 OBEs for which there was information about the incidence of lucid dreams, 83% claimed to have experienced lucid dreams. Ninety-six percent of the non-

OBE group (N = 24) made a similar claim. The difference was not in the predicted direction nor was it statistically significant (N = 65,  $\chi^2(1) = 1.29$ ,  $p = .13$ , 1t,  $\phi = .14$ ).

Finally, further analyses did not find significant differences between OBEs and non-OBEs in the frequency of lucid dreams reported (OBEs, N = 36, Mean = 2.72; Non-OBEs, N = 23, Mean = 2.78,  $z = .24$ ,  $p = .81$ , 2t,  $es = .06$ ).

### OBEs and the Five Factors of Personality

NEO-PI-R data were available for 96 of the original 97 Ganzfeld participants. As seen on Table 34 none of the analyses revealed significant differences between the scores of the OBE group and the non-OBE group on the factors of the NEO PI-R. Not only was my hypothesis that the OBE group would obtain higher openness scores not supported, but the results favored the non-OBE group (OBEs Mean = 140.21, non-OBEs Mean = 146.46;  $z = 1.92$ ,  $p = .97$  1t,  $es = .49$ ). Since the results go in the opposite direction from the hypothesis they are expressed on the table as  $p = .97$ .

Table 34  
OBEs and the Means of the Factors of the NEO-PI-R

Factor	OBE Yes Mean N = 42	OBE No Mean N = 24	z	p(2t)	es
Neuroticism	101.07	99.83	.33	.74	.08
Extraversion	109.48	117.75	1.59	.11	.41
Openness	140.21	146.46	1.92	.97*	.49
Agreeableness	113.38	117.46	.50	.62	.13
Conscientiousness	100.31	98.29	.70	.48	.18

\*Predicted analysis, 1 tailed.

Presented here as .97 and not as .03 because it has contrary results to the predicted ones.

Table 35 shows the comparisons between the OBE and the non-OBE groups on the 36 facets of the NEO-PI-R. Just as no significant difference was found between the groups on the Openness factor, no significant differences were found on the Fantasy facet scores. In addition, OBEs obtained a mean score that was in the opposite direction from my prediction (OBEs Mean = 23.17, non-OBEs Mean = 24.88,  $z = 1.63$ ,  $p = .95$ ,  $es = .42$ ). None of the other analyses of the OBE versus non-OBE groups reached the set alpha of .01, but some results were suggestive. For example, the Non-OBE group obtained suggestively higher mean scores on the following NEO facets: Warmth (from the Extraversion factor); Aesthetics (from the Openness factor); and on Trust and Tender-Mindedness (from the Agreeableness factor).

Table 35  
Relationship Between OBEs and Means of the Facets of the Five Factors  
of the NEO-PI-R

Facets	OBE Yes N = 42	OBE No N = 24	z	p(2t)	es
<u>Neuroticism</u>					
Anxiety	18.33	17.75	.49	.63	.13
Angry/Hostility	16.31	14.75	1.07	.28	.27
Depression	17.74	17.83	.21	.83	.05
Self-consciousness	16.69	15.38	.74	.46	.19
Impulsiveness	18.62	19.50	.50	.62	.13
Vulnerability	13.83	14.96	.65	.51	.17
<u>Extraversion</u>					
Warmth	21.45	23.67	1.80	.07	.46
Gregariousness	15.45	18.00	1.57	.12	.40
Assertiveness	15.60	16.83	1.09	.27	.28
Activity	18.02	19.46	1.41	.16	.36
Excitement Seeking	18.31	18.42	.14	.89	.04
Positive Emotions	20.38	20.75	.10	.92	.03

(Continues on the next page)

Table 35 (continued)

Facets	OBE Yes N = 42	OBE No N = 24	z	p(2t)	es
<u>Openness</u>					
Fantasy	23.17	24.88	1.63	.95*	.42
Aesthetics	24.62	26.25	1.92	.05	.49
Feelings	25.50	26.13	.94	.35	.24
Actions	19.57	21.13	1.39	.17	.36
Ideas	22.90	23.62	.63	.53	.16
Values	24.45	24.46	.12	.90	.03
<u>Agreeableness</u>					
Trust	17.90	20.75	2.17	.03	.56
Straightforwardness	17.76	18.58	.58	.56	.15
Altruism	21.52	22.00	.38	.70	.10
Compliance	16.83	16.00	.70	.48	.18
Modesty	18.09	17.25	.95	.34	.24
Tender-mindedness	21.26	22.87	1.86	.06	.48
<u>Conscientiousness</u>					
Competence	18.43	17.71	.93	.35	.24
Order	14.83	13.92	.55	.58	.14
Dutifulness	18.74	19.00	.23	.82	.06
Achievement Striving	16.88	17.58	.31	.76	.08
Self-Discipline	17.05	15.71	1.03	.30	.26
Deliberation	14.26	14.38	.24	.81	.06

\*This was a predicted analysis conducted using a 1 tail value ( $p = .05$ ) but is reported here as nonsignificant ( $p = .95$ ) because it contradicted the hypothesis.

### OBEs and Claims of Spontaneous Psychic Experiences

An index of psi experiences was calculated by counting the number of unequivocal “yes” responses to the PQ questions that dealt with a participant’s own experience of telepathy, clairvoyance, precognition, PK, and “visions” (possible apparitions). The Psi Index assigned to participants from this count ranged from 0 to 5.

Our prediction that OBErs would have a significantly higher Psi Index was confirmed. There was a higher median Psi Index score in the OBE group (N = 42, M = 1.86) than in the non-OBE group (N = 24, M = 1.13) ( $z = 2.14$ ,  $p = .02$ ,  $1t$ ,  $es = .55$ ).

Table 36 contrasts each experience, with claims of precognition showing the highest magnitude of difference ( $\phi = .41$ ). As shown on the table the percentages of claims on all experiences were higher in the OBE group than in the non-OBE group. However, none of these comparisons reached the alpha level selected for analyses with no specific predictions ( $p = .01$ ,  $2t$ ).

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Table 36

Frequency of Claims of Psi and Related Experiences in Relation to OBEs

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Experience	OBEs (N = 42)	No OBEs (N = 24)	$\chi^2(1)$	N	p (2t)	Phi
Telepathy	55%	42%	.15*	34	.70	.07
Clairvoyance	33%	21%	.35	36	.56	.10
Precognition	48%	25%	5.40	32	.02	.41
Psychokinesis	12%	8%	.22	39	.64	.07
Visions	38%	17%	3.46	43	.06	.28

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\*Since one of the cells of the chi-square table was 0 we analyzed this using a Fisher Exact Probability Test. The p was .32 (2t).

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OBEs, Dreams, Imagery, and Other Variables

Table 37 (on the next page) presents several non-significant contrasts between these two groups on other dream and imagery variables.

Table 37

## Mean Ratings of Relationship Between OBEs, Dreams, Daydreams and Imagery

Experience	OBErs	N	Non-OBErs	N	z	p(2t)	es
Dream Recall	5.07	41	5.13	24	.11	.91	.03
Dreams differ from ordinary experience	5.14	42	5.13	24	.08	.94	.02
Dream without recall of content	3.71	41	3.83	24	.33	.74	.08
Daydreams	4.50	42	3.91	23	1.39	.17	.34
Enjoy activities which require involvement in fantasy	5.46	41	4.71	24	1.73	.08	.42
Ease of creation of mental image	6.33	42	6.04	24	1.43	.15	.35
Clarity of created mental image	5.43	42	5.54	24	.34	.73	.08
Quality of mental image	4.95	41	5.04	24	.55	.58	.14

A positive significant relationship was found between OBEs and the practice of mental disciplines. Out of 42 OBErs, 93% said they had practiced some form of mental discipline. Of the non-OBErs 38% (N = 24) did so. The difference between these two groups was significant (N = 66,  $\chi^2(1) = 20.89$ ,  $p = .00001$ ,  $\phi = .56$ ). Although those



who had OBEs also reported a higher percentage of claims of practicing mental disciplines consistently than did non-OBEs, the difference was not significant (OBEs 31%, N = 36; Non OBEs 22%, N = 9; corrected  $\chi^2(1) = .01$ ,  $p = .93$ , 2t,  $\phi = .01$ ). In addition there were no significant differences between the groups on rate of practice, as assessed along a seven point scale (OBEs M = 3.47, N = 38; Non-OBEs M = 2.00, N = 9;  $z = 1.83$ ,  $p = .07$ , 2t,  $es = .68$ ).

Engaging in specific spiritual and physical regimes such as Hatha Yoga, Tai Chi, and Aikido related positively to OBEs (OBEs M = 2.69, N = 42; Non-OBEs M = 1.39, N = 23;  $z = 3.29$ ,  $p = .001$ , 2t,  $es = .85$ ). A similar, but non-significant, trend was noticed regarding current practice of such regimes (OBEs M = 2.38, N = 26; non-OBEs M = 1.00, N = 4;  $z = 1.71$ ,  $p = .09$ , 2t,  $es = .92$ ). However, the low number of non-OBE participants in this analysis makes this latter finding rather weak.

I did not find a significant difference between the two groups on their ratings of creativity (OBEs M = 8.33, N = 24; non-OBEs M = 7.92, N = 42,  $z = 1.77$ ,  $p = .08$ , 2t,  $es = .43$ ).

Finally, I compared the incidence of being raised in an environment with a tradition of paranormal ability claimed by the OBEs (29%) with that claimed by non-OBEs (17%). The difference was not significant (N = 66, Corrected  $\chi^2(1) = .62$ ,  $p = .43$ , 2t,  $\phi = .10$ ).

## Discussion

It is first necessary to qualify the generalization of the findings of this study by acknowledging that the participants in the original experiment cannot be considered representative of the general population or of creative people in general. Not only were

they motivated enough to come into the laboratory to be tested in a relatively time-consuming procedure, but they were selected for their involvement in a variety of artistic endeavors and for their positive attitude towards the existence of psi phenomena. This is not, of course, a flaw of the original study, because such a population was intentionally selected to fulfill the purpose of the original study. Nonetheless, the data collected on the participants presented a good opportunity to study a variety of OBE correlates, provided we do not attempt to generalize our results to more representative populations.

Future work should include the use of more powerful statistical techniques and more sensitive measurements of the spontaneous phenomena in question. Unfortunately the low number of participants and the necessity to truncate the scales for some of the analyses into “yes” and “no” categories limited my analyses to less powerful techniques.

### Altered States

Two of my predictions supporting Blackmore’s model were confirmed. That is, there were higher rates of the spontaneous experience of losing awareness of the surroundings while involved in an activity and of losing a sense of time while involved in an activity among the OB-experients than there were in the comparison group. This finding supports some of Blackmore’s assumptions concerning the connection of OBEs to other spontaneous alterations of consciousness. If persons who have OBEs are able to have them because they possess an ability to alter their consciousness then it makes sense that those individuals would also report other experiences that involve alteration of consciousness or the creation of new cognitive maps such as those that may underlie hallucinations, dissociation and absorption-type experiences. That is, there may be a common cognitive mechanism behind all of these phenomena.

In this view, depending on circumstances still not understood, these abilities may produce an OBE, such distortions of body image as feelings of expanding into the environment, as well as mystical experiences, lucid dreams and other phenomena of altered cognitive and body sensations. In fact, there is already evidence in the literature for a relationship between the OBE and experiences of hallucinations and perceptual distortion (McCreery & Claridge, 1995), dissociation (Richards, 1991; see also the next chapter), and particularly absorption (Alvarado & Zingrone, 1997b; Glicksohn, 1990; Irwin, 1980, 1985b; Myers et al., 1983). My findings, and those we have just cited, may be interpreted as supportive of a general cognitive ability that may be distributed unevenly in the population. Perhaps we may even speculate about some form of diathesis, or latent potential for altered experiences, in the vein of the discussions one finds frequently in the schizotypy and dissociation literatures (e.g., Claridge, 1985; Kihlstrom, Glisky, & Angiulo, 1994). Such potential may manifest in an individual in different ways in accordance with such developmental and situational factors as trauma or stress, or with more positive factors such as good relationships with parents and early parental support. In later studies, many of these factors could be explored so as to better understand this proneness to the OBE and other experiences of altered cognitive and body perception. In the meantime I would like to encourage the study of OBEs and similar experiences in research designs that use methodologies that combine some form of assessment of spontaneous experience with laboratory based-work.

The analyses that related aspects of the ganzfeld experience to OBE claims were not significant, including the prediction that OB-experients would report higher alterations of consciousness during the Ganzfeld than non-experients. Extending Blackmore's ideas, it made conceptual sense to me to assume that the ability used by the

organism to produce an OBE would also be related to the ability to produce alterations of consciousness in artificial settings. However, it is possible that such a natural ability does not necessarily translate into an artificial setting such as the Ganzfeld. In addition, one needs to understand the circumstances surrounding the claimed OBEs more clearly. Although the questionnaire provided space for such a description, in most cases the descriptions participants gave were uninformative, thus it was never clear whether experiencers had what we would call an OBE, and if so, if they had had more than one such experience. It is entirely possible that such details are essential to the relationships I sought to uncover. For example, the hypothesized ability to change cognitive maps might be present only in those experiencers who claim to be able to induce OBEs intentionally, or, at the other extreme, in people who have had OBEs spontaneously as opposed to those whose experiences were caused by accidents and other traumatic experiences. Support for the idea that intentional production of the OBE is related to an ability or predisposition to experience alterations of consciousness comes from the correlational analyses reported in Chapter 5 between the degree of incidence of OBE at will and measures of absorption (Tellegen's Absorption Scale) and schizotypy (a shortened Perceptual Aberration Scale). The measure of OBE at will correlated significantly and positively both with absorption ( $r_s = .40$ , controlling for age =  $.43$ ) and with perceptual aberration ( $r_s = .35$ , controlling for age =  $.39$ ).

Intentional OBEs may require active use of the particular cognitive resources that underlie the switching of maps, while those induced by trauma may require little of such resources because the organism was forced to reorient its perceptions by a "jolt" to the system. Consequently, refinement of the questions used and descriptions obtained would greatly enhance the explanatory value of future studies.

### Lucid Dreams

The failure to find a positive association between OBEs and lucid dreams is inconsistent with the majority of previous studies attempting to relate these variables mentioned in the previous chapter. It is possible that this difference may be explained by the fact that the sample had an uneven distribution of participants with and without lucid dreams. Out of the 65 participants used in the chi-square analysis reported above, 88% (57) reported lucid dreams and 12% (8) did not. It is difficult to test for this relationship if most of the sample was composed of lucid dreamers. (As seen on Table 37, none of the other dream variables were significant either.)

### Personality Variables

While most of my analyses regarding the five factors of personality were not significant, we found a reversal regarding openness. That is, non-OBEs obtained higher openness scores than did OBEs. Maybe the scores of the artists and musicians participants are different from those of more representative populations. In fact, when I compared our overall Openness mean (142.7) to American norms (110.6) (Costa & McCrae, 1992b), it was obvious that my sample had an unusually high level of openness to experience ( $t[95] = 23.59, p < .00001$ ). Ninety-eight percent of the participants obtained scores over the normative mean. Such high levels of openness to experience in our participants could have prevented us from testing our hypothesis because of the lack of variability in the data. Of course, we should remember that we are using American norms, not those derived from a British population.

### Parapsychological Experiences

I found a predicted significant positive association between an index of psi experiences and the OBE. This is consistent with the findings reported by previous researchers (Alvarado & Zingrone, 1994; Blackmore, 1984a; Green, 1967; Palmer, 1979a). Table 36 shows that there is a clear trend for OB-experients to have a higher incidence of phenomena than non-experienters, although only the analysis with precognitive experiences came close to significance.

### Other Analyses

It is not surprising that we found such a low relationship between OBEs and creativity ratings. I obtained a truncated distribution of scores in which most of the participants rated themselves as highly creative, producing a highly negatively skewed distribution. Their overall mean was 8.15 and the median was 8.00 (range: 3-10, SD = 1.28).

The fairly strong positive relationship between OBEs and practice of mental disciplines ( $\phi = .56$ ) was very interesting. This is consistent with the positive relationships reported between OBEs and practice of meditation (Myers et al., 1983; Palmer, 1979a). Although there were more OB-experients who had practiced a mental discipline consistently as compared to non-OB-experients making the same claim, the difference was not significant. However, the non-OBE group for this analysis had only nine participants, as compared to 36 for the OBE group.

Finally, I found a significant positive relationship between the practice of physical or spiritual regimes such as Hatha Yoga, Tai Chi and Aikido and OBEs. However, my analysis for this question — similar to that on meditation — does not allow us to explain

the nature of this relationship. It is possible that OBEs happen more often to people who practice these disciplines because meditation develops their sensitivity to the cognitive processes speculated to induce OBEs. On the other hand, it is also possible that people who have OBEs because of some hypothetical cognitive disposition feel driven to practice mental disciplines as a way to express or channel their cognitive potential, or as an attempt to understand and control their OBEs.

### Concluding Remarks

If we are ever to understand the cognitive disposition behind the production of the OBE, and other currently unexplained phenomena, it is necessary that our survey and experimental work expands and deepens so that more sensitive designs than those in this study can be used. It is my hope that part of this future work will continue to combine spontaneous and laboratory-produced phenomena in ways that will allow us to isolate the best predictors of OBEs. I also hope that this work will continue to test particular models so that we may modify and improve our theories empirically and conceptually.

## VIII. Out-of-Body Experiences and their Relationship to Dissociative Experiences

In previous studies I attempted to relate the OBE, or its features, to cognitive variables such as absorption experiences, lucid dreaming, alterations of consciousness in the ganzfeld, and openness to experience. The final study to be reported in this thesis continues this line of research by expanding the scope of the exploration of psychological correlates of OBEs to dissociation, or, more accurately, to dissociative experiences of daily life. Historically the concept of dissociation -- that is, the idea that perceptions, emotions, physical sensations and memories may be separated from awareness (e.g., Spiegel & Cardeña, 1991) -- has been associated with a variety of unusual phenomena (Alvarado, 1989a; Gauld, 1992). The recent upsurge of interest in dissociation, in psychiatry and in clinical psychology, after a period of neglect, provides a new opportunity to explore how dissociation relates to a variety of parapsychological and other unusual or exceptional mental states or experiences (for summaries of recent interest in dissociation see Carlson & Putnam, 1993; Kihlstrom, Glisky, & Angiulo, 1994; Lynn & Rhue, 1994; Michelson & Ray, 1996; Spiegel, 1993; and Spiegel & Cardeña, 1991).

Recent interest in dissociation has developed due to a variety of scientific and social developments, some of which have been discussed by Ross (1996). An important factor is the recent attention society has given to reports of physical and sexual abuse and its psychological sequela, after-effects including dissociative reactions such as amnesia for the traumatic experience (an issue reflected in the controversies about the accuracies of these memories, e.g., Pope & Brown, 1996). The impact of the Vietnam war on American soldiers, particularly on the syndrome of post-traumatic stress, was also another



factor that brought attention to dissociative reactions (Ross, 1996). These, and other factors such as the continuing tradition of hypnosis research seen in the work of Bowers (1979), E. Hilgard (1986), J. Hilgard (1970), Shor (1962), and Tellegen and Atkinson (1974), among others, helped to develop interest in dissociation. Ernest Hilgard's (1973, 1979, 1986, 1992) writings concerning his neo-dissociative model of hypnosis were particularly influential because it linked hypnosis in modern times to the idea of dissociation. This was the case because Hilgard argued that there were subconscious levels of the mind in which "hidden observers" were active in the processing of pain, in learning, and in other tasks presented to participants in hypnotic experiments.

All this background provided the context for the revival of interest in multiple personality, generally considered the most extreme form of dissociation. As seen in Greaves' (1980) study many cases were reported during the 1970s. This was the beginning of a literature of great proportions continuing to our days in which it is argued that multiple personality, now called Dissociative Identity Disorder, is mainly a dissociative reaction to traumatic experiences such as physical and sexual abuse (much of this thinking is clearly and conveniently discussed by Cohen, Berzoff, & Elin, 1995; Martínez-Taboas, 1995; Putnam, 1989; and Ross, 1989). Today there is controversy regarding the validity of dissociative identity disorder as a syndrome that exists independently of the influence of clinicians' suggestions and other iatrogenic ministrations (see Merskey's [1992] critique of contemporary clinicians' practices dealing with this syndrome and Martínez-Taboas [1995] critique of Merskey and other critics of multiple personality).

All these interests led to the development of a variety of scales and interview schedules to assess dissociation (e.g., Bernstein & Putnam, 1986; Nijenhuis, Spinhoven,

Van Dyck, van der Hart, & Vanderlinden, 1996; Riley, 1988; Ross, Heber, Norton, Anderson, Anderson, & Barchet, 1989; Steinberg, 1993; for a review see Steinberg, 1996). This, in turn, was instrumental in the myriad of studies that have been reported in recent years to study the dissociative experiences of different individuals such as the general population (Ross, Joshi, & Currie, 1990), college students (Ray, June, Turaj, & Lundy, 1992), people affected by disasters (Spiegel & Cardena, 1993), and psychiatric patients (Ross, Anderson, Fleisher, & Norton, 1992). In addition, several studies have used these instruments to study the relationship of dissociative experiences or mechanisms to specific psychological phenomena or to specific psychological processes such as eating disorders (Katz & Gleaves, 1996), multiple personality (Martínez-Taboas, 1994), temporal lobe signs (Richards & Persinger, 1991), childhood stress (Sanders, McRoberts, & Tollefson, 1989), physical and sexual abuse (Chu & Dill, 1990), the perceptual processing of threat-related information (Waller, Quinton, & Watson, 1995), absorption and hypnotic susceptibility (Nadon, Hoyt, Register, & Kihlstrom, 1991), parapsychological experiences (Richards, 1991), and my own non-thesis-related work with a colleague regarding dream recall, lucid and vivid dreams (Alvarado & Zingrone, in press).

One of the phenomena recently related to the dissociative process is the out-of-body experience (OBE). As Irwin (1996) has written: "In normal circumstances, our sensory processing of kinesthetic and somaesthetic stimuli serves to maintain the assumption that 'consciousness', or the thinking and perceiving self, is 'in' the physical body. That is, somatic processing ordinarily is integrated with a sense of self. Such is not the case during an OBE. In this sense, the OBE is a dissociative event simply by *definition*" (p. 158).

Putnam (1989, pp. 21-22) and Ross (1989, p. 16) mention OBEs in the context of a discussion of the varieties of dissociative experiences. Cardeña (1994) classified the OBE as a normal dissociative phenomenon similar to hypnosis and automatisms. In his view, these phenomena “are primarily produced by psychological and social variables such as deployment of attention, expectations, and such” (p. 28). Similarly, the writings of Ray (1996), Sanders, McRoberts and Tollefson (1989), and Steinberg (1995), include mention of the OBE with the assumption that the experience is dissociative in nature. Nonetheless, it is only recently that research has been done to test this notion.

The first formal link between dissociation and OBEs may be seen in the positive relationship consistently found between OBEs and absorption experiences reviewed in Chapter 6 of this thesis and explored in Chapter 7 (see also Alvarado & Zingrone, 1997b; Irwin, 1985a). Absorption experiences are generally considered to be the most common of all dissociative experiences.

The work of Irwin (1993) and Ring (1992) provides evidence of positive associations between questionnaire dissociation scores and the near-death experience, a phenomenon that has the OBE as one of its main components. On the basis of case studies, it has been speculated that these near-death phenomena are dissociative in the sense that they provide a defense mechanism that allows escape from tense, stressful or violent situations (Serhadely, 1993). In addition, the OBE has been found to be related to high hypnotic susceptibility (Pekala, Kumar & Cummings, 1992; Pekala, Kumar & Marcano, 1995).

In a previous non-thesis small scale study (Zingrone & Alvarado, 1994), a colleague and I found marginally significant evidence ( $r = .22$ ) for a positive association between the OBE and scores on the Dissociative Experiences Scale (DES), a widely used

measure of dissociation in daily life (Bernstein & Putnam, 1986; Carlson & Putnam, 1993). Using the same scale, Richards (1991) found significant positive correlations between dissociative experiences and both reported spontaneous ( $r = .37$ ) and volitional ( $r = .43$ ) OBEs.

One of the items of the DES asks about the experience of standing next to yourself or of watching yourself as if you were standing next to your body. This item has been interpreted as an OBE item and has been reported to correlate positively with the rest of the scale with Spearman Rank Order coefficients of .55 (college students) and .43 (adolescents) (Ross, Ryan, Anderson, Ross, & Hardy, 1989). Nonetheless, as argued by Hufford (1992), this item may not refer to OBEs, but, rather, may tap autoscopic-type experiences in which it is not necessarily the case that the person had the feeling of being out of their body.

There are other indirect connections between the OBE and dissociative experiences. OBEs or OBE-like sensations are reported to be part of depersonalization experiences (Putnam, 1993, pp. 7-8; Steinberg, 1995). Regarding multiple personality (now known as dissociative identity disorder), the most extreme form of dissociation, Putnam (1989, p. 77) has argued that “at least half of all multiples” experience OBEs. Similarly, Ross (1989) has written: “Many MPD patients have had out-of-body experiences, which originally occurred during childhood abuse” (p. 16).

If OBEs are a form of dissociation, or have dissociative components, it makes sense that at least some OBE cases are related to traumatic experiences. This is because trauma is a well-known correlate of such dissociative experiences as dissociative identity disorder, post-traumatic stress disorder, and other conditions (Martínez-Taboas, 1995; Michelson & Ray, 1996). In fact, two studies have provided evidence for positive

associations between trauma and OBEs. Beere (1995) reported a positive relationship between seeing the body from an outside perspective and frequency of traumatic experiences. Irwin (1996) found positive associations between OBEs and several subscales of the "Survey of Traumatic Childhood Events." The connection of OBEs and trauma was clearly articulated by Sanders et al. (1989) when they wrote: "Dissociative experiences may occur spontaneously as adaptive responses to extreme or prolonged or inescapable stress. For example, a violent sexual assault may provoke a spontaneous out-of-body experience" (pp. 21-22). However, and as suggested by Irwin (1996) and by myself earlier in this thesis (Chapter 2), the propensity to have OBEs may be explained not by an immediate trauma, but by a reliance on such responses to trauma along the life course of the individuals in question. A person may have become so accustomed to the use of OBEs as a defense mechanism to all sorts of trauma that such responses have become generalized to situations that are not traumatic, thus explaining the propensity to have OBEs long after the original trauma. Of course, not all the pathways to dissociation or to OBEs have to be traumatic, as seen in Josephine Hilgard's (1970) work on the developmental antecedents of hypnotic susceptibility.

Another indirect association between dissociation and the OBE is that DES scores have been found to correlate positively with a variety of claims of parapsychological experiences, as seen in the studies of Pekala, Kumar and Marcano (1995), Richards (1991), Ross and Joshi (1992), and Zingrone and Alvarado (1994). These correlations support an association with the OBE when it is noticed that there is evidence of significant relationships between the OBE and claims of such phenomena as dream ESP, waking ESP, and apparitions (Alvarado & Zingrone, 1994; Kohr, 1980; Palmer, 1979a). This was the case in the results reported in the previous chapter of this thesis.

At this point in the research, we need more evidence of an association between dissociative experiences and OBEs. In addition we need to begin to explore more fully the nature of this association. As an initial step, I propose to replicate the basic association between OBEs and dissociation by predicting a positive correlation between the DES and both OBE incidence and frequency.

Other analyses will be concerned with the type of dissociation related to the OBE, as assessed by different factors or subscales of the DES. Several studies suggest that the DES has three factors: an absorption, a depersonalization, and an amnesia factor (Ross, Joshi, & Currie, 1991; for a review see Carlson & Putnam, 1993). These factors have been questioned on the basis of a potential confound between factor identity and the skewness of the item responses (Carlson & Putnam, 1993; Waller, 1995). Nonetheless, I conducted analyses following the factors because they make conceptual and clinical sense. I predicted that the absorption and the depersonalization questions of the DES would be significantly correlated to OBE reports. This makes sense in light of the positive correlations previous studies have found between absorption and OBEs (Alvarado & Zingrone, 1997b; Irwin, 1985a), and because depersonalization may be related to Blackmore's (1984b) OBE theory. This theory predicts an association between OBEs and different experiences that involve the organisms's use of cognitive maps to analyze and cope with reality. Depersonalization experiences -- identity confusion, perceptual confusion, finding your own body strange and alien -- could be interpreted as distortions caused by changes in such hypothetical cognitive maps. If this is the case, individuals who have OBEs (one form of cognitive mapping) should also experience the shifting of other cognitive maps such as those that presumably underlie depersonalization experiences. This idea is supported by studies which have found positive relationships

between the OBE and a variety of hallucinatory and perceptual distortion experiences (Blackmore, 1984a; McCreery & Claridge, 1995).

Another interesting question is the following: Does the type of dissociation assessed by the DES help us determine whether the OBE is related in some way to pathology or adjustment problems? By themselves, the absorption and depersonalization questions do not necessarily imply such problems. However, the amnesia items may do so because these experiences are usually associated with problems of coping in everyday life and relationships. There is empirical evidence that indicates that the amnesia questions of the DES can differentiate between multiple personality patients and control groups (Martínez-Taboas, 1994; Ross, Anderson, Fleisher, & Norton, 1992). If the amnesia questions of the DES can do the same with the OBE there will be empirical evidence of a link between this experience and a form of dissociation generally considered to be maladaptive. Of course, survey research such as that reported here cannot assess pathology. To explore the issue further we would need to study the individual's life situations using case study methods sensitive to daily functioning such as those that have been employed to study the situational concerns and developmental history of patients who suffer from dissociative identity disorder (Martínez-Taboas, 1995). Such an approach would allow us to assess whether the experiences endorsed in the amnesia items affect the lives of OBEs in negative ways. However, continued use of the DES may lead us to discern which type of dissociation is a better predictor of the OBE. Following this line of reasoning in the present study, I will explore possible correlations between the OBE and that subset of the DES, selected using taxometric methods, which seems to differentiate pathological conditions related to dissociation from the experiences of normal controls and from those suffering from other forms of

pathology (Waller, Putnam, & Carlson, 1996). In addition, I will conduct exploratory analyses to assess which items of the DES are better predictors of the OBE.

To summarize, I am predicting:

1. A significant difference between the DES scores of those claiming OBEs and those who do not, such that OBEs' DES scores would be significantly higher than non-OBEs;
2. A significant positive correlation between OBE frequency and DES scores; and
3. Significant positive correlations between OBE frequency and scores on the absorption and depersonalization factors of the DES.

## Method

### Participants

The participants were students of McHenry County College, a community college in Crystal Lake, Illinois, USA. Most of the participants were women (60%), single (79%), around 23 years old (range 17 to 59,  $M = 23.2$ ), had completed secondary education (67%), listed their religion as Catholic (51%) and considered themselves to be slightly religious (48%). The 308 questionnaires collected were obtained from courses of: sociology (34%), psychology (21%), communications (15%), film (10%), philosophy (8%), photography (7%), government and criminal justice (4%), and women's studies (1%). It was not possible to distinguish between the government and the criminal justice courses in the replies of the students taking these classes. These were returned through the post and I failed to identify each questionnaire properly.



## Questionnaire

For this study I created a questionnaire we called the “Questionnaire of Mental Experiences” (a copy of the questionnaire appears in Appendix 7). This questionnaire has two sections, one of demographic variables and one comprised of 44 additional questions. The second section uses a response scale ranging from 0 to 100 with increments of 10. Instructions emphasized that questions should be answered in terms of the percentage of time that the person has had the experience described, limiting their responses only to those experiences that occurred without the use of drugs or alcohol.

Twenty-eight of the items of the second section consisted of the revised version of the Dissociative Experiences Scale (DES) (reproduced in Carlson & Putnam, 1993). There is considerable evidence that shows that the original DES is reliable and valid. The scale has been shown to have adequate internal consistency (Cronbach Alpha = .95, Frischholz, Braun, Sachs, Hopkins, Scheaffer, Lewis, Leavitt, Pasquotto, & Schwartz, 1990), internal reliability (Split-half  $r = .83$ , Bernstein & Putnam, 1986;  $r = .93$ , unpublished paper by Pitblado & Sanders, 1991, cited by Carlson & Putnam, 1993), and test-retest reliability ( $r = .84$ , Bernstein & Putnam, 1986;  $r = .96$ , Frischholz et al., 1990;  $r = .79$ , unpublished paper by Pitblado & Sanders, 1991, cited by Carlson & Putnam, 1993). Several studies show that the scale can differentiate statistically individuals with dissociative pathology from individuals without such pathology (e.g., Carlson, Putnam, Ross, Torem, Coons, Dill, Lowenstein, Braun, 1993; Martínez-Taboas, 1994). Carlson and Putnam (1993) review many other examples showing that the DES can discriminate between control groups and groups with a variety of psychiatric problems, especially those conceptualized as dissociative (e.g., Bernstein & Putnam, 1986; Chu & Dill, 1990).

The DES-II is different from the original scale in that, instead of asking

individuals to place a slash on the line indicating the percentage of time they have the experience in question, participants are asked to circle the percentage. Evidence is accumulating that shows that this scale is as valid and reliable as the original scale. Recent studies have found positive relationships between the DES-II and schizotypal cognitions and other psychiatric symptoms (Bauer & Bauer, 1995), with longer latency in responses to threatening information in a perceptual test (Waller, et al., 1995), and with dream variables, namely dream recall, lucid and vivid dreams (Alvarado & Zingrone, in press-a). Ellason, Ross, Mayran, and Sinton (1994) and Carlson and Putnam (1993) found similar DES scores when they administered the two versions of the scale twice. In addition, Ellason et al. (1994) reported that the scores in both versions of the DES were positively correlated in samples from the general population ( $r = .90$ ), and in groups suffering from dissociative identity disorder ( $r = .95$ ), and chemical dependency ( $r = .85$ ). The combination of data from the three groups produced an  $r$  of .96. My assessment of the internal cohesion of the scale used in the present study produced a Cronbach Alpha of .92. A split-half Pearson correlation of the even and odd items of the DES was .82, but changed to .90 when corrected for length of test using the Spearman-Brown formula (Kline, 1986, p. 15).

Other items in the questionnaire (which will not be analyzed in this paper) were taken from the synesthesia factor of Tellegen's Absorption Scale, one of six factor-analytically derived factors (Tellegen, 1992), which has been correlated with success at laboratory synesthesia tasks (Rader & Tellegen, 1981). Inadvertently, I included a question from a different factor of the scale, reducing the seven-item synesthesia subscale to six items in this study.

In addition, to the DES and the synesthesia subscale I included questions about

mystical experience, dreams (recall, lucidity and vividness), and about dream ESP, waking ESP, apparitions, OBEs, and the aura. The OBE question read:

Some people have had an experience in which they felt that they were located outside of, or away from, their physical body, that is, that their consciousness, mind, or center of awareness was at a different place than their physical body. Circle a number to show what percentage of the time this happens to you.

0 ... 10 ... 20 ... 30 ... 40 ... 50 ... 60 ... 70 ... 80 ... 90 ... 100

The 100 point response scale, arranged in increments of 10, was used for all the items. This standardization was used to maintain consistency with the revised form of the DES and to camouflage the DES items thus reducing the likelihood that the purpose of the DES scale would be intuited by the participants. Synesthesia items, which had originally been true and false, as well as the psi and dream-related items were modified to conform to the response scale of the revised DES. In addition, all the items were randomized so as to minimize the transparency of the DES and the other items and thus decrease the potential influence of any contextual effects. In this chapter I am reporting only the analyses conducted with the DES.

It could be argued that the use of this 100-point response scale with its emphasis on percentage of time was inappropriate as a measure of OBEs because of the difficulty in estimating percent of time over a lifetime. It is my contention, however, that participants do not have difficulty with this scale in general, and that most (if not all) approach it as a 10-point scale ranging from “never” to “always”. That the scale has been used for more than a decade in dissociation research, with a vast literature covering the reliability and validity of the DES and its response scale leads me to believe that it *is*

most definitely appropriate for the measurement of OBEs (and other experiences), which, in fact, are analogous to many of the experience items included in the DES. In my experience, particularly with the MCC sample, participants have not questioned the meaning of this response scale. I base this on the fact that in 17 in-class presentations of the scale, I fielded a wide variety of questions about the study and the questionnaire, but at no time did any of the participants' query the meaning or use of the 0%-100% response scale. But even if it causes some confusion or presents some measurement error, overall analyses suggest that the scale still is appropriate to assess frequency of OBEs and its relationship to other variables.

### Procedure

Contact was made with the Dean of Humanities and Communications and with the Coordinator of Social Sciences, who helped me to reach several professors who were willing to allow me to administer the questionnaire in their courses. An assistant and I both of us visited the classes of the instructors who agreed to participate in the study and presented the questionnaire as one designed to study normal psychological phenomena of daily life, particularly memory, imagination and dreams. The students were told that we were interested in the incidence of the experiences and in individual differences. I never mentioned the purposes of the study, that is, students never heard from us that the study was about OBEs, dissociation, parapsychological and synesthesia-like experiences. During the presentation I emphasized that the students were under no obligation to participate in the study and that they should not complete or return the questionnaire to us if they did not wish to do so. Before giving them a copy of the questionnaire, we gave them a consent form that they signed and dated. Some students completed the

questionnaires in class, others returned completed questionnaires to their instructors and a small number returned completed questionnaires through the mail to us. Some instructors gave extra credit to their students for participating in the study while others did not.

### Analyses

The data was entered in StatPac Gold software, version 4.5. Statistical analyses were conducted using Spearman Rank Order correlations, Mann-Whitney U tests, Chi-Squares and probit regressions. I used probit as opposed to standard regression because I was interested in relating the variables in question to OBE group membership, that is, to those participants that claimed and did not claim to have had OBEs. Effect size measures of the z values produced by our Mann-Whitney-U statistical package were calculated using the formula presented in Chapter 3.

## Results

### Collection Method and Academic Credit

I conducted several analyses to determine if the form in which the questionnaires were collected or the academic credit that some instructors gave to their students for participation in the project affected our results. In statistical analyses reported in a paper in press no evidence was found to suggest that these variables influenced scores on the DES or on the frequency of lucid dreams and vivid dreams and dream recall (Alvarado & Zingrone, in press-a). In analyses conducted for the present investigation there were no statistically significant differences between method of questionnaire collection or academic credit in relation to OBE incidence and OBE frequency (see Tables 38 and 39).

Consequently, all 308 questionnaires were pooled for further analyses.

Table 38

Incidence of OBEs in Relation to Academic Credit and Method of Questionnaire Collection

Variable	N	OBE Yes	OBE No	$\chi^2$	p
<u>Academic Credit</u>					
Credit	83	29%	27%	.11(1 df)	.75
No credit	221	71%	73%		
<u>Method of Collection</u>					
In class administration	257	88%	83%	1.40(2 df)	.50
Collected by teacher	24	6%	9%		
Mailed by the students	24	7%	8%		

Table 39

Mean OBE Frequency in Relation to Academic Credit and Method of Questionnaire Collection

Variable	N	OBE Mean Frequency	z	p
<u>Academic Credit</u>				
Credit	83	6.02	.27	.79
No credit	221	6.29		
<u>Method of Collection</u>				
In class	257	6.56	.79	.43
Collected by teacher	24	3.75		
In class	257	6.56	.55	.59
Mailed by student	24	4.58		
Collected by teacher	24	3.75	.22	.83
Mailed by student	24	4.58		

### Incidence and Frequency of OBEs

Out of 305 respondents, 30% claimed to have experienced OBEs. As seen on Table 40 most of the experiencers claimed a low number of OBEs.

Table 40

#### Frequency of Out-of-Body Experiences (N = 305)

Frequency of OBEs Claimed	Percentage
0	70
10	16
20	7
30	2
40	1
50	1
60	1
70	1
80	1

### OBEs and Demographic Variables

Twenty-seven percent of those claiming OBEs were male and 32% were female (N = 305,  $\chi^2(1) = .75$ ,  $p = .39$ ,  $\phi = .05$ ). Mann-Whitney U analyses did not show significant differences for religiosity (OBE M = 3.07, no OBE M = 3.10,  $z = .13$ ,  $p = .90$ ,  $es = .02$ ) nor for age (OBE M = 22.96, no OBE M = 23.16,  $z = .56$ ,  $p = .58$ ,  $es = .10$ ). However, a correlation of OBE frequency and age was significant,  $r_s(163) = .19$ ,  $p = .02$ .

### OBEs and Dissociative Experiences

The mean DES score for the whole sample was 21.70 (SD = 12.87, Md = 19,

range: 1-65). The OBE group (N = 91) obtained a DES mean of 30.33, as compared to a mean of 18.05 (N = 214) for the non-OBE group,  $z = 7.43$ ,  $p = < .000001$ ,  $1t$ ,  $es = .93$ . Because one of the DES questions asks about the experience of seeing yourself while standing besides your body we recalculated the statistics taking out the relevant item. The results were still highly significant and comparable,  $z = 7.33$ ,  $p < .000001$ ,  $1t$ ,  $es = .92$ .

### Factor Analysis of the DES

The data from the DES collected from the students of McHenry County College was submitted to a factor analysis. The initial aim was to attempt to replicate the three factors extracted by Ross, Joshi and Currie (1991). In Ross' et al. (1991) article they described submitting their data to a factor analysis using varimax rotation, a technique designed to maximize the difference between high and low loadings of items on factors. Ross's three-factor solution explained approximately 47% of the variance in his data set. It was not known whether he relied on an orthogonal loading structure (which attempts to find uncorrelated factors), or an oblique simple structure (which allows for inter-factor correlation).

Using StatPac 4.5, I performed a factor analysis, using the varimax rotational technique, forcing a 50% variance-explained extraction solution for comparison purposes. Because it is known that the items of the DES are highly inter-correlated, I decided to rely on the oblique simple structure of the factors derived. Since the operation was an exploratory one -- to determine whether or not Ross' factors could be extracted from my data set, or improved upon, I decided to use a .32 loading cut-off criteria, which represents, according to Tabachnick and Fidell (1996, p. 677) a "poor" fit of item loading to factors. Such a liberal criterion was employed to give as much opportunity for



replication as possible. When the analysis was run, all 28 items of the DES loaded on one factor, with loadings ranging from a low of .38 for item 10 to a high of .69 for item 5. Thirty-three percent of the variance was explained by this single factor. When rerun, forcing a 3-factor solution, an identical result was obtained.

In an effort to understand why the factor analysis of my DES data differed so strikingly from Ross et al's (1991) three-factor solution, I reexamined the fit of my data to the assumptions underlying factor analysis. Tabachnik and Fidell (1996) make the point that the less normally distributed the data to be factor-analyzed is, the more unreliable and unpredictable the results of the factor analysis. They recommend graphing the individual item distributions and examining them visually for skewness and kurtosis, as well as testing statistically whether the skewness and kurtosis found is significantly non-normal. Using their formula for calculating a skewness z-score and a kurtosis z-score (pp. 72-73), it was found that 24 of the 28 items of my data set were significantly positively skewed (that is, with skewness z scores at or beyond 2.58,  $p = .01$ , 2t), 18 of which were severely skewed (skewness z scores at or beyond 6.00). Overall, skewness z scores ranged from 1.09 ( $p = .28$ , 2t) to 34.78 ( $p < .0001$ , 2t) with a mean skewness z of 6.31 ( $p < .0001$ , 2t). Twenty of the item distributions also suffered from significant kurtosis, but only 1 of these was not also significantly skewed, and the overall kurtosis z score for the entire data set was not significant (Kurtosis  $z = 1.12$ ,  $p = .26$ , 2t, range = .55 to 10.25).

Because the overall level of kurtosis in the data set as a whole was not significantly non-normal, I decided to focus on the overall positive skewness of the item score distributions. I also decided to apply the transformation recommended for significantly positively skewed distributions to all individual item score distributions, no

matter what the actual characteristics of the individual item distributions, so as to maintain original mathematical relationship of the item scores to each other in the data set as a whole. Consequently, even the four item score distributions that were not significantly positively skewed were transformed in the same manner as the 24 item score distributions that were significantly positively skewed.

In the case of significant positive skewing in a data set, Tabachnick and Fidell (1996, p. 85) recommend transforming the raw scores before factor analysis by adding a constant to ensure that the minimum score is 1, and by then taking the inverse of the resulting score. The formula for the transformation is thus:  $\text{New Score} = 1/(\text{Old Score} + 1)$ .

After transformation, 15 of the 28 item score distributions were either less severely positively skewed or negatively skewed but with an absolute value closer to 0. Thirteen item score distributions were more severely positively skewed. Overall, however, the positive skewness of the data set as a whole decreased (mean skewness  $z = 2.31$ ,  $p = .02$ , range = -15.89 to 35.24). The kurtosis of the item score distributions overall remained virtually the same ( $Kz = 1.99$ ,  $p = .05$ , range = .68 to 9.02) post-transformation.

The transformed DES item scores were factor-analyzed again using the varimax rotation, the 50% of the variance extraction solution, and the oblique simple structure factor loadings with a loading cut-off of .32. Again only one factor emerged, on which 27 of the 28 items loaded, with a range of loadings from .33 for item 19 to .62 for item 18, and 25% of the variance explained. (Only Item 23, with a loading score of .15, did not load on the factor.) When the analysis was run again, forcing a three-factor extraction solution, the result was identical to that obtained with the 50% of the variance extraction

solution.

It did not seem appropriate to continue to transform the scores of the item distributions in order to obtain an overall data set that was more in keeping with the normal distribution, given the problems of interpretation that such mathematical transformations bring. Consequently, I concluded that, in this study, the item score distributions of the DES formed a single, unitary measure of dissociation, and that, in that sense, Ross et al.'s (1991) 3-factor model was not replicated in this data set.

### OBEs and Sections of the DES

Although my factor analyses did not produce the same findings reported by Ross et al. (1991), I decided to analyze my OBE data following those factors for comparison purposes. However, these factors are also problematic in other ways. Ross et al.'s factorial solution has been criticized in that his analyses lack techniques to normalize the data and consequently are dealing with highly skewed distributions (Waller, 1995). Although other factor analyses have revealed similar solutions to that reported by Ross et al. (reviewed by Carlson & Putnam, 1993) analyses based on those factors should be evaluated with caution until the controversy about their validity is solved.

Table 41 (on the next page) shows comparisons between OBE "yes" and OBE "no" groups on the factors of the DES found by Ross, Joshie, and Currie (1991), the subscale of eight items of the DES developed by Waller, Carlson and Putnam (1996) using taxometric methods (the DES-T), and the remaining items of the DES not included in the DES-T. All the comparisons were significant.

Table 41  
OBE and Non-OBE Groups in Relation to Different Parts of the DES

Variable	OBE Group M (N = 91)	Non-OBE Group M (N = 214)	z	es
DES Absorption Factor	42.59	28.38	6.59	.82
DES Depersonalization Factor	20.04	7.01	8.30	1.04
DES Dissociated Activity Factor	12.64	5.58	5.89	.74
DES-T	23.12	9.92	8.32	1.04
DES Without DES-T Items	33.45	21.42	6.88	.86
All analyses significant, $p < .000001$				

Table 42  
Correlations Between OBE Frequency and DES Variables

Variable	$r_s$
DES Score	.54
DES Without OBE-Like Item	.53
DES OBE-Like Item	.59
DES Absorption Factor	.50
DES Dissociative Activities Factor	.48
DES Depersonalization Factor	.58
DES-T	.57
DES-T Without OBE-Like Item	.56
DES Without DES-T	.51

Note: All analyses were significant,  $p < .00001$ ,  $N = 305$ .

Table 42 shows correlational analyses of DES variables in relation to OBE

frequency. In addition, the OBE-like question of the DES correlated significantly with the rest of the scale,  $r_s(306) = .53, p < .00001$ .

To determine which variables best predicted OBE group membership (OBE yes and OBE No) a probit regression analysis was performed. As seen on Table 43, the regression was significant but the Depersonalization Factor was the only significant predictor.

Table 43

Probit Regression Analysis of DES Factors as Predictors of OBE Group Membership

Variable	Coefficient	T-Ratio	p
Constant	-1.46434	-7.38070	<.00001
Absorption Factor	.01124	1.63375	.10231
Dissociated Activities Factor	.01146	1.09264	.27454
Depersonalization Factor	.03692	4.55071	.00001

$$\chi^2(3) = 71.22, p < .00001, \text{Log of Likelihood Function} = -150.28$$

Similarly, a second probit regression showed that the DES-T was a significant predictor of OBE group membership, while the rest of the scale was not (see Table 44, on the next page).

If the analysis on Table 44 is performed after the OBE-like question has been removed from the DES-T subscale, the results are similar in that the DES-T is still the only significant predictor, although the significance is slightly lower for the DES-T (coefficient: .04561, t-ratio: 4.25918,  $p = .00002$ ). The overall significance was also slightly reduced:  $\chi^2(2) = 67.73, p = .0000, \text{Log of Likelihood Function} = -152.02$ .

Table 44

Probit Regression of DES-T and the Rest of the DES Scale as Predictors of  
OBE Group Membership

Variable	Coefficient	T-Ratio	p
Constant	-1.45297	-7.72783	<.00001
DES-T Score	.05326	4.85541	.00000
DES Without DES-T Score	.00415	.44004	.65993

$\chi^2(2) = 73.82, p < .00001, \text{Log of Likelihood Function} = -148.98$

Another probit regression was performed to determine which individual items of the DES were better predictors of OBE group membership. The OBE “yes” and OBE “no” were the dependent variables while the independent variables were the 28 items of the DES. Table 45 (on the next page) shows the results. The regression was significant and identified five items that were significant at the 5 percent level or less.

If the analysis is performed without the OBE-like item, thus reducing the DES items to 27, the regression still is significant, but slightly less so:  $\chi^2(27) = 94.60, p < .00001, \text{Log of likelihood function} = -105.26$ . The importance of the items as predictors stay the same, with the exception of an additional item that takes the fifth place. This is the item about finding yourself in a familiar place, but finding it unfamiliar (coefficient: .01074, T-ratio: 1.96511,  $p = .04942$ ).

Table 45

## Probit Regression of Individual DES Items as Predictors of OBE Group Membership

Variable	Coefficient	T-Ratio	p
Constant	-1.35244	-4.48395	.00001
Finding themselves in a place with no idea how one got there	.01906	1.94932	.05127
Feeling as though standing next to oneself or watching oneself	.01281	2.20908	.02719
Staring into space, thinking of nothing, not aware of passage of time	.01271	2.32682	.02000
Act different in one situation compared to another	.01008	2.05307	.04008
Feel as if looking at world through a fog, people and objects appear far away	.02215	2.60913	.00910

$\chi^2(28) = 99.60, p < .00001, \text{Log of Likelihood Function} = -102.76.$

Note: The table includes only statistically significant DES items.

## Discussion

As is usual in studies of this sort with convenience samples, it is important to keep in mind that our sample may not be representative of the general population. In addition, one may argue that a tendency to claim many experiences of any sort may explain some of the significant results we have obtained. However, the fact that the most

frequently endorsed questions of the DES were absorption ones, and that these were not the best predictors of the OBE, suggests that a tendency for “yes”-saying and other acquiescence set variables do not explain our significant results. I will return to the DES results after discussing some of the more general findings of the study.

The incidence of the OBE was 30%. Although higher than the incidence of studies that have used samples representative of the general population (e.g., Blackmore, 1984a; Palmer, 1979a), it is not uncommon for surveys with college students to obtain percentages similar to the one obtained in the present study. For example, in an early study Hart (1954) reported an OBE frequency of 33%. Other studies have reported percentages of 28% (Irwin, 1996), 29% (Glicksohn, 1990), 31% (Blackmore, 1987; Zangari & Machado, 1996), and 34% (Green, 1967).

Similar to the results of previous studies (for a review see Irwin, 1985a), in the present study I did not find significant relationships between OBE incidence and demographic variables, namely sex, age, and religiosity. It is interesting that age was positively correlated to OBE frequency, considering that DES scores and age have shown a negative relationship in some previous studies (Bernstein & Putnam, 1986; Ross, Joshi, & Currie, 1990; Zingrone & Alvarado, 1994), as well as in the present one ( $r_s[165] = -.19, p = .01$ ).

The hypotheses regarding OBE incidence and frequency were confirmed. I obtained higher DES scores for those who claimed to have had OBEs as compared to those who did not. A high frequency of OBE claims was also associated with higher DES scores. This is consistent with Richards' (1991) study, although not strictly comparable. It is also consistent with a previous study that is not part of this thesis (Zingrone & Alvarado, 1994). However, the effect size (Cohen's  $d$ ) for the difference



in DES scores between the OBE “yes” and OBE “no” groups in that first study was lower than the measure found in our present study (.45 vs. 1.06). For this comparison I am not using the effect size measure that I have applied to the z value generated by the Mann-Whitney U program I am using through this thesis. Instead I have derived a Cohen’s d from a t value to make comparable the results of the current study to those of the previous non-thesis one (Zingrone & Alvarado, 1994).

The probit regressions favored the factors and items of the DES that tap into amnesia and depersonalization experiences, but not those that ask about absorption experiences (with one exception in the analyses conducted with all the DES items; see Table 45). It should be remembered that my own factor analysis did not reveal the existence of the three factors in my data and that there has been some controversy about the validity of the factors I used in the analyses.

The eight items that form the DES-T, selected using taxometric methods by Waller, Putnam and Carlson (1996), consisted of amnesia and depersonalization items. These investigators found that scores on the DES-T were lower for normal controls, and for general psychiatric patients, than for psychiatric patients considered to be high dissociators, namely those who suffered from post-traumatic stress and dissociative identity disorder. What are the implications of the finding that the DES-T was the part of the DES that significantly predicted OBE group membership (see Table 44)? While it cannot be concluded that the OBE is pathological, these data suggest that the experience is particularly related to those aspects of dissociation that affect people’s lives negatively in some contexts. But such aspects of dissociation may be particularly important to the cognitive ability presumed to underlie the experience of altered states of consciousness and a variety of perceptual or quasi-perceptual experiences. From this

point of view, these dissociative experiences could be related to what Blackmore (1984b) postulates to be an ability to shift those cognitive maps that underlie different ways of perceiving reality, such as OBEs, among others. This is particularly possible with depersonalization experiences, in which an individual's perception of the surroundings and sense of self are altered. It is not clear if the amnesia experiences fit well within this framework, however. In part, the problem in making sense of the relationship between the OBE and dimensions of dissociation lies in the fact that there have been few studies exploring the relationship of dissociation to experiences other than the usual psychiatric diagnosis of dissociative identity disorder, post-traumatic stress disorder and other conditions. Consequently, the only models of interpretation we have regarding correlates of dissociation are medical models. We need to expand our research on dissociation's relationship to many non-pathological experiences such as dreams (Alvarado & Zingrone, in press; Richards, 1991) and other altered states of consciousness. Studies such as the present one will allow us to expand both our understanding of dissociation and OBEs.

Part 4:

Conclusion

## IX. General Discussion

### Methodological Concerns

As mentioned before, the studies reported in this thesis must be qualified in a variety of ways. First, the samples used are convenience samples, they cannot be considered representative of the population at large. This means that we must be careful about generalizing from the results. Nonetheless, the results of many of the analyses are in accord with those of more representative studies. In the final analysis, of course, all of the results presented here will have to be evaluated by the success or failure of replication attempts.

Another limitation of the studies presented here is that there is no way to be sure what percentage of participants in some of these studies may have had a tendency to endorse many items (the so-called “yea-sayers”), or towards general compliance with perceived tasks demands (on these issues see Rosenthal & Rosnow, 1991). I attempted to control for the latter by presenting the items of questionnaires used in Chapter 5 (the questionnaire of psychological variables) and Chapter 8 (questions about dissociation and other phenomena) in random order so as to mask the demand characteristics of the underlying instruments. In future studies the potential problem of biases in responding to questionnaires may be addressed, in theory, by using lie scales, social desirability scales, and/or by keying items in positive and in negative ways (Nederhof, 1985; Rosenthal & Rosnow, 1991). However, although these approaches are useful, they do not necessarily control completely for these problems. The interpretation of lie scales is sometimes ambiguous, and may indicate many different types of response biases, not all of which measure simple lying (Kline, 1993). In addition, the reversal of items is

potentially problematic when one uses standardized scales, because changes to such scales may compromise their validity. In principle, however, it would be worthwhile to use some of these approaches in future studies.

It may also be argued that the OBE questionnaires could have included questions to assess acquiescence, especially in the OBE Feature Index. One possibility to tease out “yea-saying” would be to include questions asking the opposite of what other questions have asked. Although this is possible in principle, it is not so easy in practice. For example, if, to control for the endorsement of saying one saw lights or heard noises, we use questions such as “I saw darkness,” and “There was deep silence,” we may confound the issue further by not realizing that darkness and silence have also been reported as part of an OBE. The problem is, then, what specific questions can be included to assess acquiescence. Perhaps another more fruitful way would be to include several questions among the OBE features that the investigator invents, that are clearly ridiculous (e.g., “I saw a little green man looking at me during my OBE), or bizarre (e.g., I saw floating hair at a distance during my OBE). But if these questions stand out as too ridiculous or too bizarre they may not serve to discriminate between presumably reliable reports of OBE features and unreliable ones. One hopes that future researchers may be able to create a sensible measure to counteract acquiescence.

### General Perspective of the Findings Presented in this Thesis

The reader will remember that this thesis included five empirical studies. The first three (Chapters 3 to 5) were concerned mainly with the phenomenological features of the OBE, including the OBE Feature Index as a general measure. The other two studies were attempts to relate the OBE to absorption experiences and to personality

variables (Chapter 7) and to dissociative experiences (Chapter 8). In addition, Chapter 5 presented results that related the OBE to absorption and schizotypy measures. Several findings show consistency across the studies. I will summarize briefly some overall patterns in my findings (see Table 46). A more detailed discussion of the findings will appear in later sections of this chapter.

Table 46

Findings	Chapters				
	3	4	5	7	8
Lack of consistent relationship with demographic variables	X	X	X	X	X
Significant positive correlation with psychological variables:					
Absorption			X <sup>a</sup>	X <sup>b</sup>	
Lucid Dreams		X <sup>c</sup>		ns <sup>d</sup>	
Mean of OBE Feature Index <sup>e</sup>	2.47	4.38	8.31		
Relationship of OBE Feature Index and OBEs at will		X	X		
Relationship of OBE Feature Index and OBE Frequency	ns	X	ns		

**Note:** The "X" indicates significant positive findings; ns indicates non-significant but positive findings.

a Tellegen's Absorption Scale

b Two questions about losing sense of time and losing sense of surroundings

c Positive relationship with OBE Feature Index

d This refers to lucid dream incidence

e All of these means are below the mid-point of the scale.

Consistent with previous studies, my research failed to find consistent significant relations between OBEs and demographic variables. This was the case both with measures of OBE incidence and frequency.

Similarly, there is a general trend in my studies for OBE incidence and frequency to correlate positively with psychological variables. This was the case with absorption and schizotypy (Chapter 5), absorption experiences of losing track of time and a sense of the surroundings (Chapter 7), and dissociation (Chapter 8). In both Chapters 5 and Chapter 7 the OBE was also positively and significantly related to different measures of absorption: two questions about changes in the sense of time and of the surroundings (Chapter 7) and the Tellegen Absorption Scale (Chapter 5).

There were several interesting consistencies with the OBE Feature Index as well. The actual statistics for the three studies that used the OBE Feature Index were: Chapter 3 (Mean = 2.47, SD = 1.69, Range: 0-8), Chapter 4 (Mean = 4.38, SD = 2.73, Range: 0-14), Chapter 5 (Mean = 8.31, SD = 5.08, Range: 0-25). Although the indexes were not strictly comparable due to a different number of features, it is important to notice that the overall means were comparable. That is, if one pays attention to the range of the scores of the indexes it is clear that all of them obtained mean scores below the middle point of the distribution of the scores. In this sense, it may be argued that the experiences measured in these studies were not as complex as those one finds reported in the popular literature, especially in the autobiographical accounts literature of individuals who claim to have the ability to have the OBE at will (e.g., Monroe, 1971) as well as in those who claim to have had the experience while they were close to death (e.g., Eadie, with Taylor, 1994).

There are other consistent findings with the OBE Feature Index. This index

showed significant positive correlations with a measure of having OBEs at will in both the studies reported in Chapter 4 and Chapter 5. The relationship between the OBE Feature Index and the measure of OBE frequency obtained different results. In the study reported on Chapter 3 OBE frequency was measured by dividing OBEs into single and multiple experiencers. Here the comparison was not significant. OBE frequency was measured with a continuous scale in two other studies, one of which was significant (Chapter 4) and one which was not, although positive nonetheless (Chapter 5).

Overall, there were no significant relationships between the OBE Feature Index and demographic variables.

In what follows I will discuss in more detail my findings as regards OBE incidence, demographic variables, analysis with the interaction of OBE features, findings supporting Blackmore's OBE model and other theoretical issues, and considerations for future research.

### Incidence of OBEs

The incidence of OBEs in the studies reported here requires some comment (see Table 47, on the next page). As argued before, the high incidence of OBEs reported in Chapter 4 (82%) should not be surprising when it is remembered that the participants in



Table 47  
Incidence of OBEs Reported in Three Studies in this Thesis

Study Reported in Chapter:	N	Type of Participant	Percentage
4	486	Readers of Spanish New Age Magazine	82
7	66	Artists and others involved in the arts living in Edinburgh	64
8	305	American College Students	30

**Note:** Only three studies provided information about OBE incidence. The rest of the studies were conducted only with those who claimed to have had the experience.

the study were readers of a Spanish new age magazine. In addition, it was clear from the questionnaire that I had a particular interest in OBEs. The OBE question included more sub-questions than any other item in the questionnaire. This may well have increased the number of OBEs reported. Other studies with participants who were selected for their interest in and involvement with parapsychological experiences have obtained a similarly high incidence of OBEs (Kohr, 1980, 50%; Richards, 1988, 59%). Nonetheless, the incidence obtained in the present study reported in Chapter 4 is higher than even these.

The incidence of OBEs in the participants of the study reported in Chapter 7 was also high, that is, 64%. However, this high incidence may be explained by noting that these participants were also special individuals. They were preselected from among groups of artists and other presumably creative people on the basis of their previous parapsychological experiences and their open attitudes towards the reality of

parapsychological experiences. Under these circumstances, it is not unusual to find a high incidence of OBEs. Because previous research (reviewed in Chapter 6) shows that reports of OBEs are positively related to claims of other parapsychological experiences, a sample preselected on such a basis should, by definition, have a high incidence of OBEs.

Finally, the incidence of OBEs found in the study reported in Chapter 8, 30%, is not significantly different from the mean percentage of OBE incidence in previous studies conducted with college student samples, as analyzed in Chapter 1 (Table 1) of this thesis. The 46 studies with college students which preceded the present one obtained a mean percentage OBE incidence of 26%.

### Demographic Variables

Consistent with previous findings, (see the reviews of Alvarado, 1986b and Irwin, 1985a) in my studies, the OBE was not significantly and consistently correlated to age or sex. The only exception was the positive correlation found in the study reported in Chapter 8 in which the relationship of dissociative experiences to OBEs was studied. In this study, age was significantly and positively correlated to OBE frequency ( $r_s = .19, p = .02$ ). The small magnitude of the correlation (accounting for 4% of the variance) is consistent with previous findings which show that age and other demographic variables are not good predictors of the OBE.

### OBE Features

As argued before, most of my findings regarding the incidence of specific OBE

features are consistent with findings reported in previous studies. This is the case even with the special group of participants of the study reported in Chapter 4 (the readers of the *New Age* magazine). However, the most interesting subset of the analyses surrounding OBE phenomenology were those which attempted to relate specific features of the experience to other features and to psychological variables.

Particularly interesting were the analyses which tested aspects of Muldoon's theory of OBEs. Although I was not successful in replicating the previous finding that sudden and rapid returns to the body at the end of the experience were related to a higher rate of shocks to the body than were slow and gradual returns (Alvarado & Zingrone, 1997a), other previous findings did replicate. This was the case with the positive correlations obtained between distance from the body and control of bodily movements during the OBE ( $r_s = .36$ ) and between distance from the body and ratings of clarity of thought during the experience ( $r_s = .21$ ).

Although exciting, at this point it is not clear what is the significance of these findings. Muldoon interpreted this by assuming that OBEs were the literal projection of some aspect of human beings out of the physical body, and by further postulating that both the movements while "out of the body" and the perceptual qualities of the experience were hindered by proximity to the physical body. But it may be possible to account for the relationships of those variables in other ways. The phenomena may be a function of attentional processes on the body. It is reasonable to postulate that if cognitive resources are focused on the physical body and on normal experience the content of the OBE could be less developed or less realistic because the cognitive resources necessary to construct the experience are allocated elsewhere. This may be more likely in those OBEs in which the experiencer feels close to the body rather than in

those instances in which he or she feels far away from the body. At this point this is only a speculation but the idea could receive indirect support if a positive correlation was found between estimations of closeness to the physical body during the experience and the OBE Feature Index. The analysis suggests that closeness to the body has some relation to OBE content in general as measured through the feature index ( $r_{[80]} = .22$ ,  $p = .05$ , 2t). However this relation accounts for only 5% of the variance. Clearly there are other factors that influence this relationship as well.

Other analyses of OBE features were those conducted to see if the reported position and activity of the experiencer's physical body affected OBE content as measured by the Feature Index. The idea here is similar to that developed in the previous paragraph. Assuming that the OBE is an imaginal experience constructed by the cognitive resources or abilities of the experiencers, it makes sense to me to assume that it will be more difficult to access those abilities or resources if bodily activity interferes. Consequently, I was expecting higher OBE Feature Index mean scores in experiencers who were lying down during their experiences as compared to those who were standing up, as well as in those who were passive as opposed to those who were active at the time of the experience. In the first study reported in Chapter 3, the results of the reanalyses of previously collected data in relation to the position of the body were not significant, but were in the predicted direction. Those reported in Chapter 5 were statistically significant, thus confirming the hypothesis. The combined results were significant (Stouffer  $z = 3.31$ ,  $p = .0005$ , 1t) but it should be kept in mind that the indices used were very different in length. Consequently the results are not strictly comparable.

In the study in Chapter 5 I also contrasted the mean index measure of cases whose experiences were passive or physically active at the time of their OBE. As

predicted, the OBEs that occurred while the experiencers were passive obtained higher index scores, and significantly so. As before, this finding was consistent with the view that physical activity may interfere with the construction of altered states of consciousness such as the OBE.

Chapter 5 also includes an analysis to test whether experiencers who considered themselves to be near-death during their OBE would obtain a higher frequency of specific features such as those found in a previous study by Gabbard, Twemlow and Jones (1981). My analyses confirmed the hypotheses in two of five specific predictions; those regarding seeing the physical body, and the seeing of lights. More work needs to be done to determine the importance of specific features. Nonetheless, my findings are consistent with the Gabbard et al. work and with my own analyses reported in Chapter 2 and elsewhere (Alvarado, 1997). To further examine the question I conducted analyses of the OBE Feature Index in relation to the experiencers' perception of closeness to death. As can be seen on Table 48 (on the next page) the results did not uncover a significant difference.

### Theoretical Considerations

As discussed in Chapter 1 and summarized in Chapter 7, Blackmore (1984b; see also Blackmore, 1993) has argued that the OBE represents a shift from the usual cognitive map to a particular reconstruction of reality that the human mind may use on occasion for a variety of different reasons and in different circumstances. It is clear that not everyone has OBEs. One has to have sufficient lability of mind (or

Table 48

Comparison of Mean OBE Feature Index Scores for Experiencers Who Perceived Themselves to be Close to Death or Not Close to Death

Group	Mean	z	p(2t)	es
Close to Death (N = 22)	9.18			
		.76	.44	.20
Not Close to Death (N = 59)	8.49			

**Note:** The analyses were conducted using the Mann-Whitney U Test.

be influenced by other factors that force the system to have the experience) to produce changes in everyday cognitive maps and thus bring about an OBE. It is in this sense that I characterize the OBE as a cognitive skill in this thesis. I am basically referring to the ability to manipulate such resources as attention level, imagery and memory so as to construct the OBE. Because the OBE is a subjective phenomenon we cannot apply the same performance criteria we generally use to show demonstrable competency in, say, mathematics, swimming, or painting. The frequency and complexity of the experience itself may be a reasonable criterion of performance, although at this point we only have rough measures to assess this, which themselves present problems of reliability (e.g, the number of OBEs experienced, the OBE Feature Index). I think a similar point applies to the characterization of some dream variables as skills, such as dream recall and lucidity. But no one will deny that people have individual differences in their degree of dreaming,

to the point that some people are more “skilled” dreamers than others. Similar to research with the OBE, dreaming abilities are assessed by measures of frequency and by content analysis (i.e., feature complexity). However, the skill necessary for creating the OBE may be assessed indirectly. Evidence for a propensity to alter reality can be seen in the association of the OBE to other psychological experiences which seem to involve such change. Among these are the associations of the OBE to reports of lucid dreaming, to such parapsychological experiences as ESP experiences and seeing apparitions, to hallucinatory experiences of different sorts, and to schizotypal, absorption, and dissociative experiences. Most of the studies conducted for this thesis present findings that support the idea that the production of OBEs is associated to a particular personality type, to a lability, or diathesis that links the OBE to other phenomena. In addition, previous research has shown that persons who have had OBEs have also experienced alterations of attention and consciousness such as those measured by Tellegen’s Absorption Scale.

My studies present further evidence that individuals who have had OBEs also claim other types of experiences and processes such as a tendency towards alteration of the cognitive-map, as predicted by Blackmore’s model (see Table 49, on page 224). This includes correlations with absorption experiences (Chapters 5 and 7), lucid dreams and dream recall frequency (Chapter 4), parapsychological experiences (Chapters 4, 5, and 7), and dissociative experiences (Chapter 8). In addition, aspects of OBEs (as opposed to OBE incidence), have also been related in significant ways to variables that support the model. The OBE Feature Index was found to be related to lucid dreams and dream-recall frequency, and to parapsychological experiences (Chapter 4). OBE frequency and OBE willfulness, or the frequency which individuals claimed they could

induce the experience, were related to absorption and schizotypal variables in the study reported in Chapter 5. This is precisely the type of relationship we should expect because having multiple OBEs and being able to induce the experience at will implies that the cognitive system of the experiencer must be more labile than that of those who have had single OBEs, or those who can not induce OBEs at will. It makes sense to postulate that the cognitive system requires more resources and a higher level of control when the experience is repeated and/or willful than when it is merely a sporadic experience, or a “one-off” experience forced by such catalysts as physical trauma (e.g., accidents, physical attacks, drugs, surgery), or by other experiences or practices that may potentially alter our perception of the world around us (e.g., fear, extreme relaxation, practice of meditation).

Overall, the relationship of OBE incidence to absorption, dissociative, and parapsychological experiences directly support Blackmore’s model because it shows that those who have OBEs can also produce other phenomena related to alterations of consciousness and to apparently different ways of perceiving the world. However, these relationships are also consistent with other OBE models, mainly those of Palmer (1978b) and Irwin (1985a), summarized in Chapter 1. These models have in common with Blackmore’s model the idea that individuals who have had OBEs can alter their consciousness under certain circumstances. Consequently findings such as mine do not support Blackmore’s model exclusively. In reality they support a general psychological interpretation of the OBE, although the propensity to change states of consciousness seems to be a more central part in Blackmore’s model than in the other two models.



Table 49

## Findings of Studies of this Thesis Relevant to Blackmore's Model

Study Reported in Chapter:	Findings
4	<p>OBE Feature Index (OFI) positively related to lucid dreams, dream recall, and an index of parapsychological experiences.</p> <p>Multiple experiencers had a higher feature index than single experiencers.</p>
5	<p>Higher OFI in: Lying down than in standing up cases, and in active than in passive cases.</p> <p>Absorption positively related to: OBE frequency and OBE willfulness.</p> <p>Perceptual Aberration Scale positively related to OFI, OBE frequency, and OBE willfulness.</p> <p>STA positively related to OBE willfulness.</p> <p>Index of parapsychological experiences positively related to OBE willfulness and to OBE frequency.</p>
7	<p>OBE incidence positively related to spontaneous absorption experiences of losing track of time and losing consciousness of the surroundings while engaged in an activity.</p> <p>OBE incidence positively related to index of parapsychological experiences.</p>
8	<p>Positive relationships between OBE incidence and frequency and dissociative experiences.</p>

As stated before, these psychological correlations support the idea that some individuals have a predisposition to alter their perception of reality with a higher

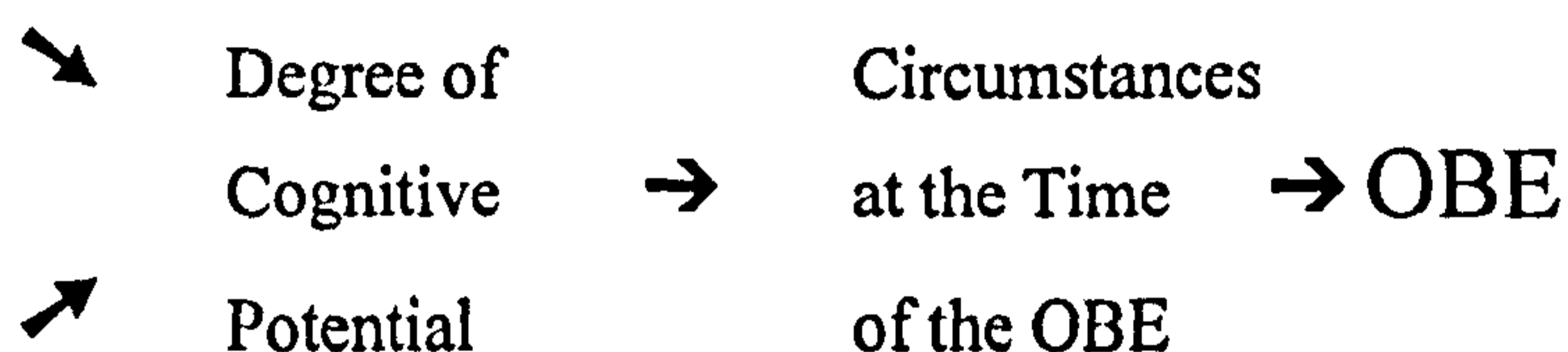
frequency than others who do not have OBEs. These individuals may be more open than others to OBEs and to other experiences, more “ready” when the right conditions arise. These other factors have not been explored in my studies nor in most of the rest of the OBE literature. It is one thing to postulate a tendency towards the alteration of consciousness of different sorts, or to show statistically that such a tendency exists. It is quite another thing to explore the specific factors that lead those individuals to alter their perceptual experiences in dramatic ways. I am referring to antecedent conditions of all sorts. In what follows I will speculate in an admittedly general and superficial way on the interaction of some variables that may affect OBE incidence. In many ways, this idea (completely exploratory at this stage) is less detailed than models such as Irwin’s (1985a). In addition, the ideas are not original in that they are based on variables used in models presented by others to account for phenomena such as dissociative identity disorder (Martínez-Taboas, 1995), belief in the paranormal (Irwin, 1992), and the relationship between dissociation and dreams (Alvarado & Zingrone, in press). My purpose is not to explain how the sensation of feeling one is out-of-the body arises, but to help map the psychological and situational variables that may affect the occurrence of the OBE. A simple outline of what follows can be found in Figure 2 on the next page.

To start, I am assuming that there may be a genetic predisposition (admittedly speculative at this point, since there is no supportive evidence) that determines, to some extent, the degree of cognitive abilities individuals have along the dimensions known to be statistically related to the OBE: absorption, dissociation, fantasy proneness, hypnotic susceptibility, lucid dreams, and schizotypy (evidence for these relationships has been reviewed in Chapter 6). Studies reported in this thesis provide evidence for the relationship between the OBE and absorption experiences (Chapters 5 and 7), schizotypal

Figure 2  
Factors Affecting the Incidence of OBEs

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Genetic Predisposition\*



Early Life Situational Factors

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\*There is no evidence at present for this genetic predisposition. It is presented here as a purely hypothetical factor deserving consideration and empirical study.

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experiences (Chapter 5), and dissociative experiences (Chapter 8). This potential for cognitive experience (conceptualized as absorption, schizotypy and in other ways) may also be affected by situational, social and developmental variables among which we may mention different types of traumas (such as physical and sexual abuse), or, at the opposite extreme, good family environment, with encouragement to actively use imagination. I would also speculate that these cognitive abilities or dispositions may be enhanced by the effect of beliefs or attitudes shaped by social environments that accept or encourage such phenomena as alteration of consciousness or parapsychological phenomena (a popular interpretation of OBEs). The dissociation literature presents evidence supporting the statistical association between trauma and dissociative experiences (Cardeña & Spiegel, 1993; Chu & Dill, 1990; Michelson & Ray, 1996; Martínez-Taboas, 1995). Similarly, there is evidence that hypnotic susceptibility is related to a good early family environment, and to activities that allow a child to develop his or her imaginative potential (Hilgard, 1970). But the main point here is that there may be an interaction

between the genetic potential of the individual and the above-mentioned cognitive phenomena. The OBE may be conceptualized as arising from this cognitive potential, be it hypnotic susceptibility, dissociation, or some other related dimension. However, this cognitive potential would not express itself in a vacuum. It is likely that there is an interaction between the psychological makeup of the individual and the contextual variables in adulthood around the time at which the OBE occurs or immediately preceding the occurrence of the OBE. The contextual variables that may surround the OBE include stress, trauma, closeness to death, beliefs, practices such as meditation, and a myriad of other variables.

The last sentences bring us back to the medical model of a diathesis and its possible application for the OBE. Following the concept of diathesis (a propensity or vulnerability to experience something or suffer from some condition) used in some areas of psychiatry and abnormal psychology (e.g., Kihlstrom, Glisky & Angiulo, 1994; Monroe & Simons, 1991), it may be argued that this facility, predisposition, proneness, or vulnerability (although I do not follow here a medical model) to alter consciousness and form an OBE presumably depends on the interaction between predisposition and situational variables. As Kihlstrom, Glisky and Angiulo (1994) have said regarding the diathesis-stress model in a different context:

In the general form of the diathesis-stress model, certain individuals carry a vulnerability to psychopathology which, when activated by a stressor, eventuates in an episode of mental illness. Diathesis and stress are complementary, such that little stress, or even none at all, is needed to activate a substantial diathesis; more moderate amounts of diathesis require substantial stress for an illness episode to occur; in the absence of a certain level of stress, the individual may never experience illness at all. In cases of substantial diathesis, the individual shows poor premorbid adjustment, indicating that the diathesis itself is inherently pathological. Diatheses may be, but are not necessarily, biological in nature; stressors may be, but are not necessarily,

environmental. (p. 121).

I am not citing this passage to defend the idea that OBEs are pathological or arise from some form of maladjustment. My intention is not to follow a medical model implying pathology, but a model that emphasizes cognitive abilities. The purpose of this citation is merely to show that a similar argument (without pathology) may be made regarding OBEs. Assuming that a predisposition toward cognitive lability in the form of dissociation, absorption, schizotypy, or any of the other constructs mentioned before exists in the experience, something else may need to happen in order for that person to have an OBE. An individual with high levels of the ability to experience alterations of consciousness could have an OBE when his system is affected or impacted by other variables such as the psychological or physiological effects of illness, being near-death medically speaking, believing oneself to be near-death (as opposed to actually being near-death in medical terms), or having experienced an accident. The importance of such variables in triggering the OBE should be proportional to the degree of the hypothetical lability or predisposition to experience altered states. That is, individuals with high propensities for absorption or dissociation should require less of a situational stimuli to alter their consciousness and shift their cognitive maps than individuals with moderate or low levels of absorption or dissociation.

The stimuli to create the OBE may be difficult to detect when it is not as obvious as it is when the OBE occurs during an accident. Sometimes we may be dealing with psychological processes such as fear or psychodynamic processes such as threats to the ego or to personal identity, as Palmer (1978b) has argued.

My own work has not yet addressed many important issues that would underly a

test of such a tentative model but it at least provides support for the initial idea that there are positive and significant relationships between the OBE and a tendency to experience a variety of states of awareness (e.g., my correlations between the OBE and absorption, schizotypy, and dissociation, which of course cannot be used to imply any causation). My work and that of several others reviewed in Chapter 6 is a start, but we need to expand the research work in the future to include some of the above developmental and contextual variables as well (a good start is the work of Irwin, 1996). To test Figure 2 we may try to use multiple regression, using the OBE as the dependent variable and the rest of the variables mentioned (early life situations, degree of cognitive potential, circumstances at the time of the OBE) as independent variables to assess the amount of variance explained by each variable, or to test which variable or combination of variables are the best predictor of having the OBE. However, more complex analyses could also be conducted using techniques such as structural equation modeling. Using this technique we may try to map how the variables interact and how their combination can account for the OBE in ways that single variables cannot. This technique may help us to build and test specific statistical models. For example, it may be postulated that a model that postulates the combined effect of early traumatic experiences, a high level of dissociation, and a particular circumstance related to the OBE such as illness or an accident may be a better fit to the data than a model that assesses the individual impact of these variables. Of course there may be more variables or lines of influence to explore than those presented in Figure 2.

It is also important to determine what type of cognitive abilities are better predictors of the OBE. Although dimensions such as schizotypy, dissociation and absorption show some overlap in correlational studies (e.g., Bower & Power, 1995;

Kihlstrom et al., 1994; Williams, Lawrence & Roe, 1997), they clearly are not measuring the same things. This is evident when the amount of variance accounted for in the correlations is examined and when the differences of item content in the questionnaires in question are reviewed. Further work could explore in more detail the potential differential contribution of these cognitive factors to the prediction of OBE incidence.

It is also important to note that some of my findings relate not to OBE incidence per se but rather to specific aspects of the OBE. For example, in analyses of the feature index, it has been found that more complex experiences are associated with frequent OBEs, and with the ability to have OBEs at will. The latter is particularly important in Blackmore's model because it links the ability to produce the experience -- a skill that should require higher cognitive skills than the occasional production of the OBE -- to a more complex configuration of features during the experience.

We may also focus on how aspects of the OBE relate to the model. The way in which the OBE develops can also reveal much of the psychological processes behind its production. By paying attention to the structure of the experience (its features) it may be possible to relate this structure more closely to specific psychological processes such as absorption and schizotypy. By following this approach we can learn much more than if we limited our efforts only to the incidence of the experience. In addition, paying attention to the features of the OBE can provide us with a more fine-grained analysis of the extent of the influence of psychological variables on the content and process of the OBE.

In keeping with this concern with features, it may be possible to extend the preliminary model presented in Figure 2 to these specific aspects of the OBE. Analyses

similar to those reported in this thesis which dealt with the OBE Feature Index and with specific features could be explored further in an attempt to see if the content of the OBE is also affected by situational and psychological variables. For example, as reported in Chapter 5 significant positive correlations were obtained with the OBE index, OBE frequency, and having OBEs at will. Perhaps these aspects of the content of the OBE, as well as individual features, may be related to factors other than the psychological variables explored in this study.

At this moment, the study of OBE features looks more difficult than the study of OBE incidence. First, the study of features requires a higher number of OBEs per study than the study of incidence requires, particularly if one wishes to employ multivariate analyses to test hypotheses. Second, it is also clear that there is a much smaller database in existence which examines the correlates of OBE features than that which exists on the correlates of OBE incidence. Consequently, much more data needs to be gathered. It is my hope, however, that some of the studies reported in this thesis have contributed to the study of OBE features.

## Future Directions

### Positive/Negative Contexts and the Problem of Maladjustment

I have already speculated on some areas for future research by considering the interaction of a set of variables. I would also like to emphasize the importance of keeping in mind the role of both positive and negative life experiences. Many areas of the study of human experience, such as dissociation research (Michelson & Ray, 1996), tend to emphasize mainly negative experience such as physical and sexual abuse and other forms of experience deficit, be they emotional, social or physiological. But it is also important



to study positive variables. These could include family support of imaginal experience through educational or creative activities, a good family environment for the development of trust, early social support for belief in parapsychological phenomena, and other possible positive variables. In this regard, we could follow the example set by Josephine Hilgard (1970) in her studies of the antecedent developmental and situational variables related to hypnotic susceptibility.

The expansion of research towards more positive variables may also help us understand better the relationship between schizotypy, dissociation and OBEs. I will say again that just because OBEs are related to these two variables this does not mean that the OBE is in and of itself pathological. The processes behind schizotypy and dissociation do indeed overlap with the processes involved in the production of OBEs, but there is no evidence at present that individuals who have OBEs necessarily experience psychiatric problems in their lives. In fact, and as can be seen in the study of Gabbard and Twemlow (1984), maladjustment has not been identified as one of the problems of OBEs. I would argue that the correlations between OBEs and schizotypy and dissociation may be explained not by postulating a common context of maladjustment, but by postulating that the same physiological and cognitive mechanisms involved in the production of schizotypal and dissociative reactions that are problematic in daily life are also involved in the production of the OBE to some extent. The experiences may share some common mechanisms without necessarily sharing pathological implications or effects. For example, schizotypal and dissociative tendencies may allow an individual access to the physiological or psychological mechanisms necessary to facilitate or induce a sensation of separation from the body, doing so without necessarily developing into pathology or maladjustment. That is, an

individual may (hypothetically) use the resources provided by schizotypal and dissociative tendencies to have an OBE without suffering impairment as a result of these tendencies in their daily life. Such ideas are implicit in current writings about both dissociation and schizotypy which imply that schizotypy and dissociation are continuous dimensions ranging from abilities or non-pathological manifestations to symptoms of different conditions, in gradations and at different intensities, some pathological and some not (e.g., Cardeña, 1994; Claridge, 1985, 1988; Ray, 1996).

As McCreery and Claridge (1995) have written about schizotypy:

Schizotypy may be conceived as a personality dimension, analogous to extraversion and neuroticism, and continuously distributed throughout the normal population, whose defining characteristic is that people at the high-scoring end of this distribution have a putatively heightened susceptibility to psychotic breakdown. However, two points need to be made in this connection. First, it should be emphasized that schizotypy as a personality dimension is quite distinct from psychosis as a breakdown process. Claridge (1985) has suggested the following analogy from physical medicine: schizotypy may be likened to a variable such as blood pressure, which itself is continuous, and even normally distributed, while schizophrenia may be likened to a number of discrete breakdown processes, such as strokes, or kidney failure, to which high blood pressure may be a contributory factor. Secondly, the personality dimension of schizotypy may be correlated to a variety of other phenomena besides psychosis. In particular, there are strong arguments for a link between schizotypy and creativity (Claridge, Prior, & Watkins, 1989) (p. 133).

Partial support for the idea that schizotypy or dissociation are not necessarily pathological, although admittedly not decisive, is the amount of variance accounted for by the correlations in question. For the correlations between OBE willfulness and the schizotypal questionnaires, the squared coefficients indicating the amount of variance explained by the correlations were: 12% for perceptual aberrations and 7% for the schizotypal experiences measured by the STA. The correlation between OBE frequency

and the Dissociative Experiences Scale (DES) explained 29% of the variance. When the subset of the DES selected using taxometric analyses and found to relate to psychiatric conditions is analyzed (the DES-T) the variance accounted for is 32%. Some of these percentages are not trivial, of course. Nonetheless, they suggest that there are other relevant factors, to the production, frequency and content of the OBE than the ones in question, something that must be considered when assessing possible pathology.

Another analysis may help to make this point regarding dissociation. Following the assessments of researchers like Carlson et al. (1993) there is evidence that scores of 30 or more on the DES are associated with pathology and adjustment problems with enough frequency that clinicians and researchers use the score of 30 as a cut off point indicative of probable clinical conditions. As seen on Table 50 (on the next page) there is no doubt that a higher proportion of OBErs score at or over 30 on the DES than non-OBErs. This analysis may be used to show the potential relationship of OBEs to psychopathology, because OBErs obtain a higher percentage of the "critical" scores than non-OBErs. But the Table also shows something else. It shows that, within the 91 individuals who reported OBEs, the OBErs were almost equally divided into those with scores at 30 or above and those with scores below 30. That is, 48% of the OBErs fall below the cut-off point, suggesting that the 30 and over level of dissociation is not the only important variable for the production of the experience. Once again, further research needs to be conducted with all these potentially pathological variables. Some of this research could concentrate on the type of schizotypy or dissociation predictive of OBEs, as determined through factor analytical analyses. Another important line of research will be to take the individual case history approach and try to determine if each OBEr has a history of psychiatric problems or not.

Table 50  
Frequency of OBEs in Relation to the DES Cut-Off Score

DES Score	OBE	
	Yes N = 91	No N = 214
30 or above	52%	15%
Below 30	48%	85%

$$\chi^2(1) = 44.80, p < .00001, \text{phi} = .38$$

Note: This data is from the study reported in Chapter 8

### Theory Testing

Although it is obvious research should proceed as theory testing, many efforts to study OBEs have not actively examined the predictions of the best models, whether to falsify them or modify them empirically. In this thesis I have focused on Blackmore's (1984b) model by testing several hypotheses derived from her ideas (see Table 49). I have looked at specific predictions such as the relationship of the OBE to other anomalous experiences and to the relationship of OBE frequency and willfulness to OBE content. Other fruitful models deserving further study include Irwin's (1985a) model and McCreery and Claridge's (1995) initial writings on the subject.

### Comparing the OBE to Other Phenomena

Regardless of the analyses some authors have done which contrast the OBE to such psychiatric syndromes as autoscopy, depersonalization, and schizophrenic body boundary phenomena (Gabbard & Twemlow, 1984; Irwin, 1985a; Twemlow, 1989), no

systematic studies have been conducted on these variables. It is important that, in the best empirical traditions of psychiatry and abnormal psychology, we try to study possible differences between the OBE and these phenomena in relation to developmental factors, demographics, phenomenology, and correlations to other variables. In addition, some more recent work carried out to refine our understanding of the relationship of the OBE to other states of consciousness (e.g., Gabbard & Twemlow, 1984; Glicksohn, 1989; Green & McCreery, 1994; Maitz & Pekala, 1991), including a variety of dream experiences (e.g., Palmer, 1979a), should be followed up. Work along these lines will do much to assess the clinical implications of the OBE and its possible mechanisms by relating the experience in more detail to other states of consciousness and to other phenomena (e.g., Margolis & Elifson, 1979).

### The Features of the OBE

Although a number of researchers have studied the features of the OBE, I have argued in this thesis (Chapter 2) and previous non-thesis-related work (Alvarado, 1984) that more in-depth phenomenological studies are needed. For example, more research is needed into neglected features, and into those variables that may moderate OBE content. Our understanding of the experience could be much deeper if we had better evidence, for example, of the effect of previous interests in, or knowledge about the experience, or of such psychological variables as dissociation, absorption, and schizotypy. Irwin (1985a) has already presented initial evidence that absorption is related to specific OBE features. My own studies have related schizotypy and absorption measures to OBE frequency and OBE willfulness. In addition, in my work composite measures of OBE features have also been related to absorption, and to the frequency and

willfulness of the experience. Studying the interaction of variables that may affect OBE phenomenology will produce knowledge essential to our ability to assess the appropriateness of theoretical models.

### Aftereffects and the Meaningfulness of the OBE to the Experiencers

To speak to clinical concerns, it is important to systematically study the variables that moderate and mediate after-effects of OBEs. Such research may give us insight into the factors underlying personality transformations, thus providing guidelines for counselors who help experiencers adapt to life after the OBE. My study of variables related to an index measure of change after the OBE is a beginning in this direction. The results of the correlational analyses indicate that the best predictors of positive change were: the OBE Feature Index ( $r_s = .44$ ), absorption scores (.31), the index of parapsychological experiences (.27), having the OBE at will (.24), and OBE frequency (.22). Further analyses could include a wider number of psychological and situational variables and a higher number of cases so as to be able to assess the impact of the variables over the measure of change using more powerful statistical techniques such as multiple regression.

Focusing on experiences such as OBEs from the point of view of helping professionals underscores the need to see the experience from the perspective of the experiencers, that is, in terms of personal meaningfulness. White (1994), in her writings on exceptional human experiences, has articulated the importance of these experiences to the process of self-exploration and personal growth. As she writes, "if one follows the ripples initiated by one's exceptional experience, it will eventuate in a new sense of self and a new view of reality. Once one engages in this process, one becomes more

connected to oneself, to others, to other forms of life, and to the universe itself" (p. 63). To follow up this perspective we will need to use methods such as the ones briefly mentioned in the next section.

### Alternate Methodologies

Although the customary survey and experimental approaches to the study of the OBE have not been exhaustively used, other methodologies and approaches may still be useful at this stage. For example, more use of qualitative methods is warranted. The work of Green (1968), Greene (1983) and Rogo (1976a), in which descriptions and gradations of OBE features have been discussed, have been helpful in understanding the variety and complexity of OBE phenomenology. Similarly, we may learn much by using single case studies that emphasize situational variables and psychodynamics, as illustrated by Serhadely's (1993) studies of dissociation in OBEs and NDEs, and by Gabbard and Twemlow's (1984) cases. Analysis of the content of experiencers' statements and accounts (or discourse) may allow us to study the way in which the experience was integrated into their lives and their sense of identity (White, in press). Sutherland's (1992/1995) study of near-death experiences serves as a model of how qualitative analysis can chart the different forms of integration the experience took, or what changes the experience provoked in the lives of the experiencers.

### Concluding Remarks

All these are but a few possibilities for further research in this vast field. It is my hope that the studies presented in this thesis will help psychologists to continue the study of OBEs by providing some initial results that may be followed up and refined in future

research efforts. The studies reported here remind us of the phenomenological complexity of the OBE and its relationship to a variety of psychological factors. These results, together with those found in the previous literature on the subject, support the view that the OBE is a phenomenon intimately related to many different aspects of psychology. Just as other “unusual” phenomena such as visual and auditory hallucinations, lucid dreams, and synesthesia have been researched by developmental, clinical, and cognitive psychologists, the OBE needs to be studied from these wider approaches. Such a diverse and converging research agenda will significantly deepen our understanding of this phenomenon in the near future.



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## Appendix 1: Descriptions of Out-of-Body Experiences

These experiences were collected for the study reported on Chapter 5. They are presented here to provide the reader of this thesis with additional examples of OBEs.

[SC1001]When I was approximately thirteen, fourteen years old, I was taken in and off school. The symptoms being I would wake up during the night and my whole body was trembling all over. Could not control it. The doctor had no idea what was wrong with me. These symptoms started on Monday night and continued til roughly Thursday, only happening after I was in bed. The trembling lasting maybe 15 minutes. But by the Saturday, things seemed to be getting better. And provided everything was alright on Sunday I was going back to school on the Monday. During the Sunday I had been outside playing in the afternoon. And after I came in it took another turn, feeling unwell. It was summer time and warm but I was feeling very cold. My mother had to light the coal fire to keep me warm. She was very concerned about me and called the doctor. I can clearly remember the time being about five pm at night. I was lying on the living room suite with a blanket over me to keep me warm with the coal fire burning. The doctor came in and examined me. He could not find nothing wrong with me. At this time I can remember feeling very cold but I was sweating very hard (cold sweat). My mother kept asking for me to be sent to hospital. The doctor did not want to do this and I can remember him saying "We will just have to let nature take its course. I don't know what's wrong with him. I can find nothing wrong." He put his stethoscope on my chest and all I remember is seeing these different colored bright lights. To describe this I will say it was like looking into a child's kaleidoscope, one of these toys where you look in at one end and revolve the cylinder with your hand. Doing so you see different colored patterns of light, changing when you turn the cylinder. During this time I was in a very confused state of mind, thinking "what is happening to me." The next sensation I remember was being in a dark tunnel, traveling along it, going round and round. Moving very fast although it seemed like a long time getting there. All this time I could hear wind-like noises, like leaves blowing in the autumn. As I went along the tunnel I could see a bright, friendly light, which I wanted to reach. I also could hear this voice telling me "It's alright. Everything will be alright. Not to worry." What the next sequence of events were I cannot remember what order they were in. But I remember being up at ceiling level above the fireplace in the living room, floating in mid-air. My body was weightless and I could see myself lying on the suite with the doctor checking my chest with his stethoscope. Also my mother crying asking "What is wrong with him, Doctor?" I could hear them talking but I was thinking, "This cannot be. I cannot be in two places." I was out of my body looking down on myself. That is when I thought I must be dead. I remember being in the tunnel again making for this bright, warm light but voices were telling me to go back, "Go back," they kept saying, "It's not time yet." This was repeated as I was getting nearer the light. The next thing I remember is thinking "How can I get back? How can I get back into my body?" Something was telling me to go in at the chest or heart. The next thing I was back in my body instantly with Doctor looking down on me, asking "Are you alright?" I recovered after this and this experience has had a long lasting effect on me. As you will realize, for me to remember all these events, roughly 27 years later, I have tried to tell you as much as possible to help you with your research. I never got to reach the light at the end of the tunnel but I often wonder what will have happened if I had. I was

very close and could sense this and it gave me the impression that this is what happens when you die and you go there. There is nothing to be frightened of. I keep an open mind about what happened to me. Perhaps your research will be able to answer a few questions for me.

[SC1002]I was seriously ill with encephalitis. I had actually done some research on the topic so I knew I had a chance of not surviving. I experienced altered perceptions for a few hours. Shadows, and lights confused me and I realized I was losing consciousness and I determined that I was not going to die. Then I saw on my right hand side a bright gold green area of light leading on forever, really lovely music and myself getting up, leaving behind a lot of pain (headache, etc.). Walking towards the light which I felt was "death" that it was a pleasant piece and not to be feared -- but as I got nearer the "voice" -- a pleasant reassuring male voice -- said "No" -- "Not yet. You have a lot to do. A lot of responsibility and are needed back there." The light faded and the other body just came back with my disembodied consciousness and I either slept or was unconscious for about twelve hours. I know my life was feared for by my doctors. I felt the experience down to the viral experience but it was a spiritual experience.

[SC1003]I have often thought I could have been near death when I had this experience. I had not had any drugs as I had been too long in labor. The baby was distressed. I think if I reached the end of the tunnel this will have been death and I know beyond doubt that we go on to a new life. It is 32 years since I had this experience but I have thought about it on many occasions. It is still fairly fresh in my mind. I went into hospital on the Sunday in labor with my fourth child. The labor started and stopped from Sunday until Wednesday when she was born so I was very tired. Immediately after the delivery I suddenly felt very sick and dizzy and found myself floating up by the ceiling and looking down at the person lying on the bed. And the nurse rolling the baby in a blanket and putting her in her cot. The next thing I was conscious of, was being on my back, on a door shaped raft, holding on at each side so I wouldn't fall off. I was naked and terribly cold and the raft was rushing down this narrow tunnel, like a long railway tunnel with wind whistling through it and turbulent water under it. I was very cold, felt desolate, alone and afraid. There was warm light at the end of the tunnel and I knew when I reached it I would be warm and safe. For some reason the raft suddenly slowed down and then I felt it being drawn backwards, away from the light and I found myself back up by the ceiling looking down on the body by the bed where I had left it. I started to feel warm and able to move about again and realized I was back in my body. The nurse said I "gave her a fright" but did not elaborate. I described my experience to her and she said, if she was me, she wouldn't mention it to anyone as people might think I was a bit odd. I told my husband about it. I was overjoyed to read about the same experience in the Reader's Digest 10 years later. I then knew I was not odd.

[SC1004] Leaning against garden gate, kissing "goodnight" to girlfriend, aware that I'm leaning on doorbell (!) and that someone is coming to the door in response to the bell. I was looking down on myself, watching all that was going!

[SC1006] On September 20, 1985, at 15:20 I was startled off my bicycle and knocked unconscious and my skull was fractured. I was taken to Dumferline West Fife Hospital

by my ex-wife and x-rayed after an hour. An epidural haematoma was seen on the x-ray and an emergency operation was carried out to drain the blood clot. On the trolley in the corridor between x-ray and theatre I left my body for around 1 minute. The trolley was being pushed fast along a corridor with a glass partition on the left hand side. I was wearing a beige tee shirt and jeans and held an intravenous drip in my left arm. I was enveloped in bright light and amniotic warmth. I felt very peaceful and secure. I had no doubt whatsoever that this was an OBE and as a result I had no fear of dying, merely the stroke of death. The feeling was one of great tranquility and security.

[SC1007] I was twenty-five years old and that year I had moved with my parents from Forfar to a small house in the mountains of Argyle between Tyndrum and Dalmally. My father took earlier retirement and sold our house in Forfar and bought this one. They had seven children and I am the youngest. The garden was a mess as it had only used for holidays. So I waited until autumn to take the weeds out so I wouldn't have the plants and flowers. So one early November day in the afternoon I thought I will make a start to it. It was a very dull, miserable day weather-wise, the rain just keeping off and no more. But it was mild and very quiet. I set about picking out ground elder between the plants, sitting on my haunches. As I carried on, I got happier and happier. All I was thinking about was I was doing something worthwhile. I was not thinking about anything else. Just doing the garden. I was completely carried away. I was so happy after about one and half hours (worked it out after) with digging that I felt myself rising into my head like not connected to my body anymore. Floated there for awhile, think only a few moments, then suddenly I was outside my body, looking down on it. A distance away, I didn't think this was strange, I knew exactly who I was and what I was and I was "me". The *real me*. I knew that my body was part of me but was not the real me. My body was my puppet and I loved it very much. As I was very concerned with what it was doing. I felt extremely contented and fulfilled. My body meanwhile was actually carrying on by itself digging. This is what confused me. A thought came into my head: "How could I possibly be up there" and I was just back into my body in a flash. I was slightly annoyed at having come back. I never told anyone for a few years. It sounded so far-fetched. I still don't say anything unless the subject is brought up. Even then I'm ridiculed.

[SC1008] 12th July 1987, 2:40am. Jesus, again. But different and frightening, very frightening. But this time proved that I was awake. For in the experience I could hear the traffic in the background. And it went on for so long that I was growing weary.// Somehow I brought this on myself. I was lying, semi-awake, when I could sense that if I tried I could get it on. And I did, rapidly. I just lay awake after it came, but I could not go further. I seemed to be trapped in my body. I could not get out. And all the while that the sensation floated through my body, I could hear the traffic outside as I can now. // Then I became angry and attempted to move but I could not and I forced myself, just forced myself. But nothing and all the while keeping my eyes tight shut for fear of opening them and seeing something I did not want to. And the fear and I attempt to speak but nothing at all. I was for some reason shouting. "Mother, mother, mother" when eventually out came "Mothhhhh, mothhhh". I was under the impression that she was here, then realized I was on my own. But Senora was downstairs but locked in the sun porch and I then made further attempts to get up and get to her. For some reason it was important that I get to some living animal. // And I tried and tried to get up and out of bed

and all the while hearing the traffic. And then thinking “Why can’t I leave like the last time and go into a dream?” Relaxing, I attempt again to take the experience deeper and not only the sound in my head but also flashes of light. It was all like an electrical discharge within my head and I was hearing and seeing it all. // Now, somehow, I tried again to move but only succeed in raising my body but inches off the bed. I am lying on my front with my hands underneath like trying to do a press-up with a ton weight spread-eagled across one. The vibrations become more intense and my mind seems to swing in a sea of nothingness. And I feel myself sinking backwards into that nothingness and then I seem to be in a whirlpool when next I find myself on my feet between the bed and the window and I can see by the light from outside lamplight shining through the door. And then I see IT, the black shadow of the second dimension, i.e., “no depth.” Just a flat shape in the doorway and it moves off and I swear and chase it, catch it and grapple with it. And we merge and become one. And for some strange reason I get the impression then that it was my shadow, another one of my selves.// I now continue and proceed down the stairs and enter the living room to find chaotic mess. It is my room, but it isn’t. Vaguely furniture seems to be piled on top of each other, at least the TV, music center, recorder, etc., were. But I make for Senora. And she is out and I’m saying to myself “How can that be? For I locked the door.” But I get down on my knees and hug her to me. When I clap her I find her face is all wet as if I had been crying and this was the result of my tears. // I get a start when the cat bounced up and I say “How” for he was locked outside. Then I remember the windows in the sun porch were open as I had just painted them and left the windows open until paint had dried. Returning to living room and I tried to make sense of it all. It is not how I live. There was music playing and in attempting to switch it off, do so. Then I go to my chair to switch off the light, the light there (where it actually is) yet get a slight electrical shock and in examining the plug see that the wires were connected to the plug are all bare. I return to the music rig and things happen. This thing on the floor, like a rolled up piece of dust and hair is pulsing like a heart beat. Picking it up I know there to be something alive within and attempt to find a sealed jar in which to put it.// It was then that miniature specs literally burst from it and started whizzing about the room. And when one lands on the index finger of my left hand, it stings like a wasp sting. Sensing much danger I attempt to escape the other projectiles. All hell seems to break out and I’m in a living nightmare. When I find myself back in bed with my eyes wide open and knowing that again it has come to an end. // The time is now 3:15am and I have been writing non-stop. Again I was in sweat and the tip of the index finger of my left hand, painful. Okay now. The feeling soon wore off. But now I think that these experiences are becoming more than a joke. I mean this time in bed at the start I was absolutely terrified. This feeling that something outside? was waiting for me and something bad and the room downstairs. My room okay but not as occupied by ME. I feel as if I share more than one of me occupying this body and in other time slots the other Mes have a slightly different idea of things than I do. And on other occasions the time slots overlap and that is when all of these takes place. This is the result. // P.S. When I left my body I had assistance. When I was swept into that nothingness, it was as if another had activated the mechanism in my brain to energize the potential required for release. // P.P.S. 3:25am and I’m still bloody terrified of all this yet angry also. I feel like I’m being used and I don’t like it at all. Let this force, entity or whatever, meet me face to face. But that’s madness. Is that what I am? Mad!! // Comment: Point of interest, before going to bed I had put video to record a film. This during period of OBE.

Following morning I find the tape chewed up in the mechanism. Just a coincidence.

**[SC1009]** The method I use for inducing an OBE was based partly from the directions from *Journeys Out of the Body* by Robert Monroe, with modifications. That day, my most recent (March 1992) I went out and did some shopping, came back and had a shower and felt quite relaxed. About 12:00 lay down for a nap. Allowed myself to drift up, keeping in mind my aim. Drifted in and out of consciousness a few times. Found myself waking up at one point and knew that by just allowing myself to sink a little I could induce the “surge” to produce an OBE. The “surge” is like energy, almost a bit like liquid, suddenly flowing from the top of the head down the body. Monroe describes it like electricity. To me it’s a bit like liquid electricity. It can sometimes feel like it comes from outside the body and by focusing on a point at infinity one can amplify the energy surge since one has more available. The energy surge comes on and I heard voices as usual, though couldn’t make out what was being said. A bit like listening to a radio in someone else’s room. A bit like a disc jockey rambling on but just a few seconds. Also heard someone laughing, a sort of mocking laugh. I saw the side of my nose but couldn’t [?] to the left as I usually do. I was lying on my back with the right side of my face on the pillow. My bed pointed north and my head is in that direction. I move forward slightly to the right. Couldn’t feel my arms and legs separate with ease but to always a bit of a struggle to lift out my head. Saw myself partially moved through the wall at the side of my bed. // Lapsed back into unconsciousness and again felt another energy surge. Asked for help and felt two hands holding my wrists. Couldn’t see the being as it was behind me. Wasn’t too sure if I should look around at it. I didn’t. Felt it should have pulled me out but nothing happened. Returned to physical and normal waking consciousness.

**[SC1011]** Woke up to feel myself floating above body. Saw darkness of room then back in body.

**[SC1012]** I have been taking caffergot Q capsules for migraine headaches prescribed by my GP with no ill effects. One day, however, I started to have visual disturbance and discovered that I had no capsule with me. I went to the nurse in the factory where I work and explained. She told me that she had some that she kept for someone else. I took one and lay down in the “quiet room”. I began to feel very bad indeed. Really nauseous. Suddenly I became aware that I was floating up near the ceiling looking down on myself lying on the plinth. The next thing that happened was I was violently sick. After a few minutes I was able to phone down to the nurse. She came up. When I explained what had happened she phoned my wife who came and drove me home. I had no reoccurrence. When I next saw the nurse she was able to tell me that she had found out the capsules were about a year old.

**[SC1013]** I have had about four OBEs. The last one when I was 17 years old. It happened in the morning, daylight, around 9:30 or 10:00 am. I was in the house on my own at the time. I was asleep in my bed having a lie-in. I felt the familiar sensation of beginning to rise out of my body. As usual I was petrified. I have never enjoyed any OBE that I have had. I tried to pull myself back into my body but to no avail. Then I was floating and I left the room. I cannot remember if I passed through a closed door or the door was open. I feel I may have passed through one of two doors because I entered the hall after leaving

my bedroom and then I entered the sitting room. I could see everything clearly. I floated towards the window and I could see out. I was quite high up because the window had a unit in front of it and I felt I was going to pass through the window but I don't think I wanted to. Suddenly a strange/terrible thing happened. As I was going to pass through the window, some "thing" enveloped me like two arms clasping my out of body self from behind. I actually felt like I was struggling against something physical. I didn't see what it was. Next thing I was yanked back into my physical body. I lay as my physical body woke up and then I dressed quickly and left the house. I have never had an OBE since. Reflecting back I feel some other out of body self was watching over me and did not want me to leave the house. I do not know why. Maybe I will not return but I don't know if I can actually believe that. There was no reason for my out of body self to leave and never return. I was also fit and healthy at the time. For some reason I was stopped. Two other things strike me as strange. Firstly, I had had several OBEs and on these former occasions I had never tried to leave the house (and therefore never felt any other presence trying to stop me). Secondly, I have never had an OBE since this happened. I really don't know why.

[SC1014] When my OBE occurred, I was alone in the house. Four weeks previously I had had an operation to remove ovarian cysts. I felt reasonably well physically but emotionally quite drained. I had lain down on the sofa around 7:30 in the evening. Several minutes earlier I had looked out of the window watching for my husband coming home. I have noticed two dark colored cars parked in the cul de sac where I lived. I lay on the sofa for around 15 minutes then decided I would have another look out the kitchen window. I found I was unable to move. I tried several times to swing my legs over the edge of the sofa but they remained still. Eventually I seemed to free them and felt myself move into an upright position. I made my way around the sofa without looking down and entered the open doorway into the kitchen. // The curtains were open and I looked outside into the street. I saw a white or light-colored car parked opposite the house but still no sign of my husband. I remained at the window for a few minutes then returned to the lounge. As I approached the back of the settee I looked down and saw myself still lying there, apparently asleep. // For some strange reason I was not frightened by this extraordinary sight. The only thing I remember thinking about was the fact that I had never seen myself with my eyes closed before. // I remained calm and relaxed but something made me feel I had to return to my body. The next thing I knew I was back in my physical body, but once again unable to move. By now I was starting to panic, I wanted to open my mouth to scream but was completely paralyzed. Thoughts were racing through my mind as I struggled to move and after a short time I was able to sit upright. // The whole experience was so strange that I decided I really must have dreamt it. I got up from the sofa to get myself a drink and whilst in the kitchen I glanced out of the window. There, to my utter amazement, was the light-colored car that I had seen during my last "visit" to the kitchen. // I immediately wrote down the event that took place that evening. Unfortunately, these notes were lost many years ago. // On two separate occasions in the following weeks I felt my legs move over the side of the bed and become light as they had done on the evening in question. However, nothing further happened and I have had no similar experiences since.

[SC1015] My husband and I were keen animal lovers and always had every kind of animal -- to such an extent we had no family by choice! It may sound stupid, this story but I swear on oath every word is true. It was the middle of winter when our tortoise started to move but with eyes closed. As this should have happened, we tried everything we could think of -- but I had only one thought. I kept saying "If it would only open its eyes, it would be alright." We bathed the eyes. We tried food, warm milk, everything until at 2 am we had to give up and go to bed. We put the tortoise in a box and left it in the living room. I was worried sick but got into bed lying on my back, straight out. After a *very* short time, without any to do, I was outside my body looking down on myself. I had no physical form, just a wraith with very keen eyesight. I "floated" through walls into the living room which was dark except for the box in which the tortoise lay. I was high up and looked down into the box in which the tortoise lifted its head and *opened its eyes!!* I was at peace and "floated" through the walls and without any further to do, looked down on myself, and was then back inside. In the morning I got up, went to the bathroom, washed, dressed and then immediately into the kitchen to make the breakfast. The kitchen was not off the living room so I *never* entered the living room. My husband, still in pajamas, went into the living room and then came to the kitchen door and asked why I had not gone to see the tortoise. "Because its eyes are open and it is as peace" I said. I turned and looked at my dumbfounded husband who said "Are you psychic or something? The tortoise is dead. *It died with its eyes open.*" The funny thing is I was *never afraid* of this experience but can remember it as if it was yesterday. // P.S. Even after all these years such an occurrence never leaves one's mind. I knew *nothing* of such a thing before and met no one like it since. But I have been afraid to mention it, in case they thought I was mad.

[SC1017] I was undergoing regression therapy through my hypnotherapist to try and discover why I had a stammer. I had several sessions and mentally I was regressed to the time of birth. My body had "gone" with just a quivering of vibrations where my body should have been. However I was aware of my mouth moving to answer questions. Suddenly I said that I was leaving my body and I floated upwards to a point several feet above the hypnotherapist's head. I saw the pool of light from the desk lamp and his bald spot. He was writing quickly to take down my experience. I saw myself as a six-foot long cigar shape but made up of many whirling "cotton wool" parts. I was aware of my body lying below (and to the left) in shadow on the couch. My real body mouth was doing the talking although I felt myself to be elevated several feet up. I felt absolutely fearless and very relaxed and happy. I soon felt the sensation of returning to the real body. We tried to recapture the experience on subsequent visits but were unable to. I personally think that it was related to the "being born" regressions.

[SC1018] This happened in December 1974. I had been taken into Strachathmo Hospital, Brechan, in Angus in a state of shock, seriously ill. Afterwards went through a five hour operation for a twisted bowel. After coming out of the anesthetic I was moved to Ninewells Hospital in Dundee as one kidney had collapsed and the other in danger of collapsing. So I ended up in Intensive Care on a ventilating machine. I had no idea where I was. This was explained to me later. While I was in intensive care my condition wasn't improving. My family were informed I would need another operation to find out why I wasn't responding to the drugs. After opening up the wound my husband was told I had



gas gangrene and was dangerously ill. This was when I had the OBE. I had come to and one of the nurses asked me why I was staring at the ceiling. She thought I was dreaming when I said I was up on the ceiling. I felt I was floating at the time and added "I couldn't be there. There's no place to sit." She said "You imagined it." I then said "I heard a nurse's voice asking why the surgeon had stitched this." One of the other nurses said "I asked that question and was told the stitches were from a previous operation." The other nurse replied "I don't believe in out-of-body experiences. It's all in the mind." Ninewells wasn't long open and at that time they hadn't provision for barrier nursing so I was removed to Kings Cross Hospital for Infectious Diseases.

[SC1020] I was training to run a marathon. I had increased my long weekly run to over eighteen miles. After running approximately twelve to thirteen miles on a lovely sunny early morning I started to feel as if I wasn't looking through my eyes but from somewhere else. I was in lovely countryside with trees and hills around me. I felt as if something was leaving my body and although I was still running along looking at the scenery I was looking at myself running as well. My "soul" or whatever was floating somewhere above my body, high enough up to see the top of the trees and the smaller hills. How long this lasted I don't know but I had run between half a mile to three-fourths of a mile (roughly four to six minutes). It was a very unusual experience with both an unsettling effect and yet at the same time one of great peace and awareness of my surroundings. I was left with a feeling of great contentment and highlighted appreciation of the lovely surroundings.

[SC1021] It's perhaps an unusual aspect of this OBE of mine, the only I've ever had, that I'm a blind man, have been since 1945 when I got wounded in Italy in the final stages of the Second World War. I got a leg off below the knee as well. But over a week in the summer of 1973, rucksack on back, was pursuing my favorite hobby of living rough in the hills. On this occasion, in the uninhabited regions between Braemar and Aviemore. This day, based at a remote hut, my now wife Margaret and I would climb a hill called Cairn a'Mhaim, took a long way round to get up it, and by way of taking a short cut back to base embarked upon the descent of a slope which proved to be far more rough, far more precipitous than was consistent with the safety of the party. I was inching my way down on the seat of brigs [NB: Seat of my pants], Margaret below me, when a big stone gave way under my hand and I found myself bouncing and rolling down hill, at the same time realizing there was no way I was going to stop, that this was, undoubtedly, the end of me [NB: His name was originally here]. It was at this moment that I got out of my body, mentally watching it plunging downwards and the thing is, that I did this in as calm and as clinical a manner as can be imagined, not so much as a hint of the pique I experienced on getting wounded in the war. I remember the exact moment I came back into my body again, when I bumped into Margaret, sent her flying and if she hadn't been stopped by a big boulder, grabbed a hold of me as I rolled past her, neither of us would have survived the fall, for a sheer drop began just below us. It's the transcendental serenity of an OBE, if that's the universal feature of one, which remains with me as my most vivid memory of that all but fatal misadventure on Cairn a'Mhaim.

[SC1022] Some forty years ago when I was in my mid-twenties, I was having difficulty in getting to sleep at night and used a deep-breathing exercise to help me. Usually it succeeded very well and enabled me to drift off to sleep. But one night it proved more

difficult to drift off then suddenly but without surprise or shock, I found myself looking down at the bed with me on my back still in it. I wasn't alarmed at this turn of events nor did it last for long. Knowing me, once back in my body, I will try and do it again. But my memory of what happened is hazy. As to the actual trip I recalled nothing of the trip out-of-body. I was suddenly looking down from the ceiling at me -- and the trip back came with a blink -- I blinked "to see better", I suppose. And there I was back in bed, everything as normal. Deep breathing was never the same again and though I tried once or twice to repeat the experience nothing came of it.

[SC1023] I enclose my most recent OBE. This happened eight years ago and was quite a life changing experience. Interesting too in that it sort of explained the previous one. My husband and myself had started going to church a few months before -- we both said almost in the same breath "I think I will go to church this Sunday". So we started going, enjoyed church, the preaching was interesting, the teaching almost taylor-made for our needs. The particular Sunday I now talk about was very ordinary. Typical Church of Scotland traditional format. Our minister was preaching on something I had never heard of, "The Transfiguration" (see Mark 17:5-8). When he read from the Bible "This is my beloved son -- listen to him" I had a most powerful and timeless OBE. I think I had been quite comfortably turning up for Church. It was all very pleasant. This changed everything. It was then that the voice of God himself. It came from outside yet echoed in every part of me. Time lost all meaning. I was aware of the minister's voice talking, aware of people around though they seemed to be far away. This time body and spirit were together. The voice of God said "You have the choice. You must choose. Give me your all (or words to that effect)." I then saw in pictures, in sounds all that had been in my life and all that would happen -- and always God was there. I now cannot remember the future things, only the promise that all would be alright, whatever happens. There was no promise of a life without hurt or pain. I seemed to be away for hours and hours, perhaps days. My senses were very acute. I could not move. Eventually when I did (with some help) my minister saw me at the door and looked quite shocked and asked me what was wrong. I told him I was terrified, yet I was elated. Remember this is a traditional Church of Scotland (no tongue speaking here -- perhaps this is another area you ought to study). I have no fear of death now. I know there are other dimensions. I have seen God in my life, have seen him very powerfully. I seem, although I am afraid to use it, be able (though not me, but me through Christ) to heal or at least have the start of this gift. I do sense for want of a better word ghosts. In fact we have to have a house exorcised because my husband and myself were having such trouble. It seems simply that I have regained a sense, one that we all probably had, but have lost. Looking back at the OB-experiences, all fit in and make sense. I have recently begun meditation and could see that this might awaken this sense further. However, I have to say that the first one, when I was at home, aged 17, was frightening. I think now I was developing an interest in the spiritual dimensions that might have been unhealthy and even directed towards the dark side and not the light. Perhaps you might know. I do apologize for this rather rambling story. Trying to get this posted to you quickly. I will be very interested to learn more about your findings and perhaps be able to speak to someone else who has had a similar experience.

[SC1024] After the birth of my first child (twenty-five years ago) I had a post-partum hemorrhage as the placenta was expelled. This sister who was delivering my baby

shouted at me to stop pushing and as I hemorrhaged she leaned across the bed to ring for help. She was shouting “Doctor, doctor!” and seemed very alarmed. At this stage I didn’t quite realize what was happening. The next thing I remembered I was high up in the room (say, ceiling height) looking down on myself on the delivery bed with several hospital staff around the bed. I felt completely relaxed and literally detached from my body. I felt quite unconcerned at what was happening and I can remember quite clearly looking around the room. I was only aware of voices after this sensation and I couldn’t put a time on the experience. I next remember the doctors commenting on how low my blood pressure was and then they spoke to me and said “How do you feel? You gave us such a fright?”

[SC1025] I was walking along a grassy bank with my two dogs, I was very breathless and had chest pain due to a severe lung infection (undiagnosed until the next day when I was hospitalized). Suddenly I was walking next to my physical body. I could hear myself talking. I often do when walking with my dogs. But I, in the other body, was the real self. I was aware of an opaque-type of body belonging to the real self. I felt no emotion but the opaque body had no pain, discomfort or actual feeling. It was just there. Just as suddenly I was back in my physical body.

[SC1027] A friend and I had completed a climb in the French Alps and were descending a steep crevaced ice slope when my friend slipped and knocked me off and we both began falling down the slope and as we gathered speed I registered the fact that we were both roped together and were gathering speed. I felt sure within myself that the outcome would be fatal. However, my friend managed to arrest the fall and we both escaped with minor injuries. The first thing I said to my friend when we managed to make ourselves safe was that I had seen a man with a yellow crash helmet falling down the mountain and that I had seen it from above. I did not, at that time, and since, identify that person as myself. But there were no other persons in the area and my friend’s crash helmet was blue so the conclusion I have drawn is that I was looking from above at my own body falling down the mountain. I knew at the time that that was the case and remained absolutely convinced to this day.

[SC1028] I was at a meeting with about eleven other members of a committee and a heated argument as to policy broke out. Half of my colleagues “loaded” against me and about to make a stupid policy decision and suddenly everything went absolutely quiet. I then found myself at a location above the table where we had been sitting -- no longer associated with the other people, including my husband. This situation seemed to be ongoing for several minutes. Then I was back in the midst of the others sitting round the table. One of my colleagues later told that she was surprised that I had “shut up” in mid-sentence and seemed to be staring ahead. It happened again for a brief few seconds last year in a similar situation.

[SC1030] My first projection. I woke approximately 6:15am and could not get back to sleep, went for a drive through city, went back to bed approximately 9:00am. I awoke approximately 9:30am to find myself approximately 4-6 inches outside myself with euphoric feelings, heightened awareness and great satisfaction. Pushed the etheric further out and then became aware of possibility that re-integration may be difficult. Extremely

frightening sensation indeed! Paused to try to maintain coherence and to try to maintain euphoric feelings. Physical body still other than breathing movements. Relief! Gradually moved out further and further. Torn between desires to move out and away from physical and desire to close in and re-integrate with physical. Decided to try to re-integrate, then immediately tried to project again, believing that I may now be able to achieve projected status as well. Re-integrated, reflected then, stood up and reflected further. Lay in bed and could not reproduce projected status which left me frustrated and determined to project again. This occurred in the autumn of 1986.

Today: Lay flat and relaxed, began active visualization technique, loosened feet, legs, arms, torso and project. This process is driven by desire and relies on the channeling of the will and other factors. I found this technique to be about 50 to 60% effective. Sometimes projection is very easy, other times impossible.

[SC1032] It happened as I was walking down the street in which I live. I was going shopping. I got to the part of the street where the sports ground is located. I was walking around the perimeter of this ground which is surrounded by a fairly high hedge and wire above that when suddenly I felt a buzzing in my head, then a sudden forceful rush of wind, which came from my entire body. I heard what seemed to be something unwinding. Then I found myself above the wire over the hedge looking down. At first I wondered who that person was below me, I quickly realized I was actually looking down at myself! My first thought was how shabby I looked in my old rain coat and I needed a visit to the hairdresser! (How vain!) It's so odd, seeing yourself from above! Suddenly I realized I was away from my physical self and I was very frightened. I kept thinking "Go back, Spirit, Go back". I repeated this very determinedly several times, more and more forceful. This had good effect (there is something to be said for the power of thought). Suddenly I found myself back, linked completely with my physical body. (P.S. I went home later and threw my old rain coat in the dustbin and arranged a visit to the hairdresser.)

[SC1033] I could see that in a 40 mile per hour area the removal van was traveling far too fast so I brake to a standstill but I did not anticipate that the van would not only fail to take the corner but would come right over onto my side of my road and come straight at me. I realized I was going to die. I recall a tiny moment of terror, then calm and the thought "I wonder what happens next". There was a sensation of being in a little toy box, being thrown about by a giant, then I was taken completely out of the situation and before the ecstasy somehow felt the car and the person had nothing to do with me. I entered a blissful state where my identity seemed to have merged with the identities of innumerable other people who were faceless and nameless and had no bodily form. I had a mind but no other physical instruments or functions. I have been scarcely aware of leaving my body behind but had a definitive feeling of coming into it, being greatly surprised and disappointed to find myself sitting in a car, my car and the driver was myself. My car ended up across the road with its bonnet against the wall of the bridge and the removal van was on its side. As far as I know, the van driver (failed a drinks test) was unhurt. I had a small cut near my ankle from broken glass but otherwise unhurt. I feel that I was conscious all the time. The police surgeon who took my statement said "You should be dead."

[SC1034] My most recent experience was two years ago, the other 30 years ago. But my

recent one was a bit different to my earlier one. In between the two incidents, I had a bad fall and injured my face badly and fractured a bone in my face. I took a long time to recover from the anesthetic and the doctors had to start work immediately when they noticed my eye. Otherwise I would have lost my sight. I saw myself standing, watching them. And then the pain was so bad I became unconscious. The next thing I knew I felt very sick. I was standing on the floor again and surrounded by doctors. I felt very conscious of my blood covered gown. It was the only thing that was bothering me. My first experience was different and it too was after an operation. I put them both down to the effects of anesthetic. I should be very interested in what you think, of course, after you have finished your survey. The two experiences made a great impression on me.

[SC1036] I have only ever had one experience albeit a very long time ago. It is still very vivid in my mind as it was watching my first child being born. It happened on New Year's Day 1952, although I don't think the date is significant, as I definitely had not been drinking. I had had gas and air and also I believe ether. Quite clearly I saw her being born and was aware of what the medical staff were saying. I also knew it was me lying on the bed. I had never heard of anyone having this experience and I didn't talk about it to anyone in case they thought I was a bit mad. Whether this had any bearing on what happened a few days later, I don't know but I had a particularly bad migraine. I could only see half of everyone and everything. This was my first and worst attack. This again I didn't talk about as I thought something very terrible was happening to me.

[SC1037] June 17, 1961. Birth of my daughter (second child, brother born in 1960, induced, gas, air, no odd experiences). Breach birth after long labor. Epidural given plus what else? I was young and very happy to have my second child as I loved the first one so much. There was a panic as they didn't realize she was a breach. Alarm bells rang. Loads of people arrived. (Elsie Ingalls, they needed to witness a breach as part of a qualification.) A big fuss was being made. I knew things were very wrong. I felt my life slipping away. It seemed to be gently leaving my body and I felt cold but not uncomfortable. I thought "this feels lovely. It's so gently. But I can't leave my babies. I love them. I can't go." Yet I was tempted. It was enticing. I found myself up above everything, looking down on myself, and all the fuss below. (I didn't tell any one about this OBE for years. But laughed when I read Tam O'Shanter in school each year as the devil sitting up in the Kirk window always reminded me of myself up there looking down!) At the time I thought I was at the front of a window with my back to it. There was marvelous warm sunshine on my back and light behind me. I was at peace and tempted to go backwards into the sunshine. I felt calm and peaceful but was crying inside as I didn't want to leave my babies but it was tempting to go. I could see all the fuss and hear the noise below. I must have been quite ill. I got a private room free after the birth! I don't remember going back to my body but woke up in pain and distress after the birth.

[SC1038] It had been a very hot sunny day and in the afternoon I had taken a walk along the coastal road towards Hopetoun House. I sat for awhile on the beach enjoying the sun as I must have walked a couple of miles. I made my way back home and had something to eat and sat in front of the TV. Later on that night I was sitting relaxing, listening to some music. I thought it will be good to go back beside the beach as I had felt very calm and relaxed there. I felt myself coming out of my body through my head. I was aware of

feeling very light. The next thing I knew I was on the beach a couple of miles away. I could see the coast, Rosyth dockyard just opposite and was drawn to the Forth Road bridge which I could see very clearly a couple of miles away. I decided that I would like to go across the bridge. I was aware of rising up and floating. I was looking down and enjoyed seeing all the tops of the trees and buildings. I got to the bridge and could see and hear the cars traveling across it. I was still looking down over them at this point. It was still a very clear night. // I got to the other side and I decided that I would stop for awhile to admire the view. On the north side of the bridge, on the left hand side, beside the Hotel, there is a little view point with some steps going up and a little fence. I walk up to the steps and put my hands on the fence. I stood for awhile admiring the view. It was very peaceful. I was still aware of the heavy flow of traffic going across the bridge. I could see Queensferry, the harbor, the houses, all the way along, past the trees to the beach where I had sat earlier. // Although I could see everything as normal, I had a very calm and peaceful feeling, as if time was standing still, but the traffic was still moving. It felt like I was on the pause button while everything around was still playing as normal. I decided it was time to go. I started to travel, floating back across the bridge. I was aware of looking down. I must have been just below the height of the towers of the bridge because I can not remember seeing the lights at the top of the towers. If I had been above them I would surely have seen them. The funny thing is I am a bit frightened of heights but I had no fear whatsoever only a feeling of pure enjoyment, of being able to float effortlessly, and travel very quickly across the bridge. // I was aware of being near my home and could see the rooftops. The next thing I knew I was aware of feeling coming back into my body through my head. It felt very sudden, heavy and solid, as before I had felt very light. It happened very quickly. I took a moment to unwind and then opened my eyes.

[SC1039] I was a mother with two small children aged two and a half years and two months and was suffering from sarcoidosis. A presenting symptom was pain in the R renal area. On occasions this pain became very intense and specific, followed by a rigor. I used my anti-natal relaxation techniques and a hot water bottle to ease the pain. The afternoon I experienced my OBE I was alone in the house resting in bed. (I do not remember now about the degree of pain at the time.) I just became aware that my "spirit" was slowing raising out of my body and that it was about one to two feet above my body. "I" rose into a most beautiful dimension -- a vivid, clear blue "sky" with the comforting warmth of the light from a "sun". I was then aware of a "being" (or "angel") on either side of me. One of these mentioned my name to a third "being" above. The reply was that it was not yet "my time." I was then gently returned to my body -- being aware of my body at approximately one to two feet above it. At no time before or after this had I thought that I was near to death. My only medication was paracetamol.

[SC1040] In the army at the time, OBE (1963). Was quite ill, but didn't know it. Got back to camp from what we called exercise of six week. I was too sick to go and see doctor. Laid on my bed, I don't know how long for, but then, the OBE happened. There was no fear or doubt about anything. All questions seemed to be answered. With just one thought. I had no body. I could see 360 degrees, walls seemed to be transparent, and I was about eight or ten feet above myself. // The reason I know something had happened, there was a couple of things that had happened. One question then afterwards there was no way

I could know of this unless I was out of body. When this happened I didn't know what I was experiencing. I didn't know about OBE until 20 years later, listening to people talking and reading about it. Also it was the reason for not saying about it, thinking no one will understand. P.S. I didn't know I was very ill until 25 years after when I went for x-ray when my father took TB, on my lungs are massive scars and black large scars on my lungs. I didn't care to ask doctor at the time of my father's illness.

[SC1041] I was lying in bed. My husband was asleep. I was lying on my left side. I had taken my last ritodrine tablet for the night. I always had tachycardia for some time after. I was experiencing very irregular beating of my heart which I perceived as being worse than usual. My heart seemed to be beating irregularly as fast. Then I was suddenly looking down at myself. I was not dreaming as I had not gone to sleep. I could not because of the symptoms described above. I looked down at my still apparently asleep body. I wanted to go back as I knew my baby was in that body. Instead I was suddenly flying above some oriental place with huts houses, with funny roofs, round with chimneys in the middle. Very eastern feeling. There were lights in this but I had no memory of people. It was 16 and a half years ago. But most of it is quite vivid. But memories do fade with time. I can not quite get the same feeling, thoughts that I experienced at the time. This sounds like a fairy story but for me at the time it was very real. The tablets were to stop me from going into premature labor. It was a serious time in my life, having lost a baby the year before.

[SC1043] 58 years old, heart attack. Saw Jesus. Went up through a long dark tunnel with a brilliant light at the end of it. Saw relatives in small clouds on the way, smiling at me. I said "Oh I don't want to die." Came back down. Jesus, wondrous white robe, holding a staff, said "Go back, go back, sister. You are not going to die yet."

[SC1044] I was lying in bed sleeping and started to go down this long dark tunnel. I saw this bright light at the end. All of a sudden there was a blaze of light. I came to a cottage with a bright white fence round it. The flowers in the garden were luminous bright, bright colors and there was two vivid bluebirds. I was then being pulled back through the tunnel at a terrific speed and woke up shaking and sweating.

[SC1046] I was approximately 11 years old when I had my first and only OBE, but it's an experience that has never dimmed in my memory. My mother took me to the dentist, Mr. Inklan, 1 Hartington Place, Leithwalk. A doctor was in attendance to administer the anesthetic as I took asthma in the early days. I received a balloon with gas mask that fitted over my face. I was very frightened of this and despite asking for an injection instead, was given this. I remember the Dentist forcing this on my face while I fought against it. Eventually I must have succumbed and blacked out completely. I then remember looking down upon my physical body in the dentist's chair. I seemed to be floating just below the ceiling and could see the doctor and dentist trying to revive me. They were, I will say, in a state of panic, and the doctor was slapping my face. I was very frightened and wanted to get back into my body but didn't know how to. Suddenly there was total blackness and I could not feel my body. Only like an eye staring ahead. I was still but suddenly began to move forward in jerky movements, like going down a stair. These movements got faster and faster until I seemed to be roaring through a black tunnel or black hole. I

suddenly saw a pin-prick of light ahead. This round shaft of light got larger and larger but was quite some way off. I don't remember any colors when I found I had returned to my normal body. I was slowly wakening up and could see through a blur, my surroundings. As I left the dentist, I told my mother but of course she said it was the effect of the gas!

**[SC1047]** I had been asleep and had an experience of someone getting into bed beside me and almost attacking me. I became frightened and went next door to sleep. But as I fell asleep I had an OBE and went back into the other room, my bedroom, where I had "felt" this person/thing and saw someone in the bed. I reached out to touch it and it suddenly made a grab for me and I saw it was the complete image of my husband who wasn't there at the time. The fear and horror I felt was immense and I instantly returned to my body.

**[SC1049]** My experience took place in 1971, seven months after the birth of my third child. The children and I were all unwell. As I was breast-feeding I was reluctant to take any medicine. During one night, whilst asleep, I became aware of a rushing noise and felt some strange force take hold of me from within. I tried to resist this feeling but it became overwhelming and I felt my whole being twisting and turning with tremendous force against which I could do nothing. With a great roar, I felt this unstoppable "tornado" come out through my head. My next recollection is a feeling of moving and heading for this super-brilliant white light. I had never before seen and never since have seen such a brilliant light. The nearest I can recall is the brilliance of magnesium set alight in school science experiments. The light became less blinding as I found myself floating around the central electric light in our bedroom. As I floated around all was quiet and tranquil and I could see the walls of the room, furniture, carry-cot etc. I then realized I could look down and see myself lying perfectly still in bed. I can still visualize the bed, the bed cover in use at that time. I floated around taking everything in then as I studied myself in bed, I began to "talk" "think" or whatever to myself and thought "That's me down there, yet here I am up here." I puzzled over this event and was able to think "Well, I'm still up here. I can still think and talk inwardly to myself; I am still me. The real me yet my body is down below me." As I took note of the carry-cot I thought "Where's the baby?" As the baby was seven months old I expect she would have been in her cot in the bedroom next door but I cannot remember. As she was also ill and I had difficulty dragging myself out of bed (with what I assumed was flu) I wonder if perhaps I had brought her into the room in the carry-cot but I can not remember.

From the calm peace of the floating feeling I began to panic. "Where's the baby? Where's the baby? I must get back to the baby." This is very vivid yet I know wonder why did I not use her name as she was seven months old.

The panic became more frantic and darkness descended. I can not only recall the darkness and a great light on her hands as I struggled to get back. I felt at this stage that I was dying, coughing, choking and struggling to breath. This has been the only time in my life where I really really felt I was dying. As a non-swimmer I have had one nasty experience but it was different as were the effects of general anesthetic. I think I had to fight to get back to myself. I have always been prone to dreams and nightmares but this was quite different and I told all the details to my husband the next day.

The experience left me with feelings I never knew I had or indeed had thoughts about. Since then I have no fear of dying, and have been totally convinced that I have a



soul that will live on after my death. This belief is so strong that nothing anyone says/proves has altered or I firmly believe will alter it.

Six years after my experience I read about OBE in Reader's Digest magazine and that was the first time I realized that what had happened to me was not unique. Anything I have read or heard since has never had any one say they came out through their head. But that is a very vivid memory for me.

I have had only one OBE but have had two other experiences when I felt some very evil presence hovering over my body as I lay asleep. These were totally terrifying and something I hope never to experience again.

I will not be terrified of having another OBE. 23 years on, and still living at the same address, I have difficulty recalling the colour schemes of the various rooms over the years yet the colour of that bedroom in 1971 is imprinted in my recall forever.

In conclusion: if you are able to decipher my writing I hope it may be of some use in your research. Good luck with your research and I am looking forward to receiving the study's findings.

[SC1050] This happened when I was about seven years of age on a short holiday in Stirling. It was during the night but I don't know at what time. I can't remember if I had been asleep or not. I just remember feeling what I called my "puffy" feeling which is hard to describe. It involved my head and also a spongy strange sensation like biting or trying to with my gums as if I had no teeth, then sort of shrinking and being sucked through something very very narrow and I think feeling a sort of pressure like a balloon being blown up and then deflated. The next thing I remember is being aware with some surprise of soaring up into the night sky. I was horizontal facing upwards and moving very fast. I had no control over my moving upwards but I didn't feel totally out of control and seemed to be moving up in a straight line. When I was thinking back about it (lately) I thought I remembered seeing the horizon in front at first and trees to my left, but I can't be certain about this as I was moving very fast. But I seemed to get flashes of seeing this from far above for a few seconds. I'm sorry I can't be more definitive about this.

I was quickly going higher and higher and wondering what I was doing up here, as I had never experienced anything like this before. I felt more relaxed and calm. Then I was aware of seeing a light to my left side, moving up beside me, perhaps slightly higher. It was sort of ball shaped, whitish color. I hadn't noticed the light before this. It seemed to be raising up beside me for some reason. I felt curious about it, also quite amazed. I kept looking at it. I don't know if the light made me lose my balance, or if I had tried to turn or look down, but I started to rock about and felt myself tipping backwards. I desperately tried to regain my horizontal position, and keep on going up the way I was before. Everything seemed to go haywire and the light was going up and down very fast. The light seemed to be going up and down on a thin silvery line. As it soared higher the line went very straight, darker and thinner like a wire.

I can remember there was something else there, to my far left, as I was struggling to regain my balance, for every time I tried hard to remember what it was, it slips away.

I felt quite alarmed now as if I was going to fall backwards and that this was a dangerous position to be in.

I can't remember anything else until I was jolted back into my body. I felt as if I had crash-landed into it not fitting right into place at first. It was painful, jarring my body, especially my head and neck, and I felt shocked. I screamed and when my mother came

through I tried to explain to her what had happened to me. She thought I had been dreaming but I was, and still am, convinced that I had been out of my physical body and was rather urgently returned to it.

[SC1053] During the mid-70s (when I was in my mid-50s) and living in East Africa, one afternoon I was lying on my bed reading. Outside the sun, the sun was shining and I could hear the motor mower cutting the lawn. I began feeling dizzy -- unusual for me. Quite quickly the dizziness increased -- I put down my book and remembered wondering if I was going to fall off the bed. The dizziness became so extreme -- it felt as though some kind of centrifugal force was separating my mind from my body -- and I wondered if I was going balmy! As my condition reached a point of being insupportable, a strong clear thought was conveyed to me "Go with it -- you'll be alright". Almost immediately I heard a tremendous bang and I said "My God. I've gone through the sound barrier."

With that, the dizziness stopped -- all that was normal had disappeared -- I was in total darkness but for a speck of light, very far away. This speck quickly increased, opening up like the lens of a camera -- and I was in LIGHT of an intensity beyond words. My mother (dead for many years) was there looking young and radiant. She had a quality of vibrant aliveness that baffles description. The exchange we had was wordless -- mind to mind -- heart to heart. Best summed in the one word LOVE. For me there was also comfort and encouragement and a feeling that life does have a purpose.

As in the blinking of an eye, I was back, lying on my bed -- the sun was shining brightly and the mower still working! I cannot say how long the whole experience lasted -- a split second? Or several seconds? I've no idea.

It was several years before I ever spoke about it -- even now I feel it is inappropriate to share this kind of experience except with someone who is "on the same wavelength." Incidentally, it had never occurred to me that I was a subject to have any such experience -- although I recognize that such things do happen, but to other people!

[SC1054] Twenty years ago while meditating during the lunch hour in the sanctuary of an Anglican Church, with myself sitting on one side of the altar and a lady "spiritualist healer" sitting on the other side, I suddenly found myself at ceiling level looking down on the scene below. It lasted for only a few moments and I was then back within my body and continued with the meditation with no other effects.

[SC1055] I was standing in a farm yard which I used to know as a boy. The farm house was now empty and I could see builders' materials stacked in the living room. In the field beyond I could see an old monastic chapel of mellow brick. I walked towards this but saw a girl enter a door in the farm building on my left and decided to follow her. I found myself in a straw littered cowshed, poorly lit, conscious of the breathing, warmth and smell of animals. The girl, who wore a fitted coat, went down a long dark passage and I followed.

I was suddenly in a mood of extreme exhalation and felt as if I were actually *there*, not dreaming. The girl opened a door ahead and slipped quickly through, closing it behind her. It was a heavy wooden door with an old-fashioned latch. I felt too confident, somehow, to bother with the latch. Instead I walked through the substance of the door without a moment's hesitation and passed from the dim light into bright sunshine. It was a most exhilarating experience and one which is still vivid in my memory

over 40 years later.

The girl had turned to the left and entered another building. I knew she must be making her way along a passage against the wall -- a glimpse of her head as she passed a small window confirmed this -- and I resolved to cut her off by passing through the wall just ahead of her.

It was a thick white-washed wall and I pressed myself against it expecting to repeat the pleasant experience I had with the door. To my alarm the wall resisted me but I dragged myself through to the accompaniment of a sharp of pain and a loud note like a bell inside my head.

The girl was half-turned towards me in the shadow but did not look at me. Her eyes were downcast and she seemed not to see me. I recognized her as a girl I used to see occasionally in the street but whose name I did not know. She was not attractive in any way and a pale slight rather pathetic figure.

Leaving her, I seemed to rise and hover over what I took to be a sculpture of an unclothed young woman reclining on a low pedestal whose skin was of a translucent blue color ... The sexual emotion she aroused was very intense and pleasurable. Suddenly I shot up into the night sky and saw the stars wheeling overhead, not like pin-points, but as short bright lines against the blackness. Then, with a shrinking feeling I was back in bed. I may not have awakened immediately but when I did I was able to record this "dream" in every detail.

Note: It occurred to me that the reclining nude figure could have been that of my young wife, who was asleep in bed beside me.

[SC1056] It was totally unexpected. The previous few days I had been quite ill with bronchitis. My personal background is relevant. As I was very wretched at the time -- married with two kids but in a complete rut. My husband was an academic and poet who lived in a world of his own and neglected us without ever meaning to be cruel, I think. Anyway this day I was too ill to leave my bed and ran a very high temperature. I was very unhappy because nobody came to see how I was, etc. I heard my mother telephone and he said I was "alright!" I felt very tearful and alone. At one point I thought he was bringing me food but he didn't. I sank back, very low spirits and then suddenly found myself on a beautiful green hillside, very vibrant, bright green grass like I'd never seen it. Coming towards me was a young man who apparently loved me very much (but it was not a sexual type of love) although I did not know who he was. He communicated through thought. He was so pleased to see me, and the feeling was great joy that at last I was coming back where I belonged. They waited so long and they knew I was unhappy. I was warm, full of peace and happiness. Never gave my earthly family a thought. I was moving towards his direction, then suddenly fell down without a thump and found myself back in bed, very very sad to come back. Could not believe I had to go on. I dearly wanted to go to the next world. Later felt very guilty for not caring more about my kids. I foolishly jabbed out the story and they were very hurt I had not thought about them. They never told my husband for obvious reasons. Now I have remarried, I wonder who my next world love is, because I love *this* one. I've never forgotten the experience. It changed my whole attitude toward life, loved ones and afterlife.

[SC1057] One afternoon I was feeling unwell and went to bed. I fell asleep and on trying to wake up found that I could not open my eyes so I decided to sleep again. At this point

I got out of myself and went towards the open bedroom door. I turned and saw myself in bed. I thought "Oh God, I've got out of myself again." I got back in and woke up fully.

**[SC1058]** I was still feeling quite uptight and a little angry about something that had happened the day before, when "X" approached me about the book he'd lent me. I really did not want to see anyone at all in the mood I was in. I felt myself tense up. I thought furiously as he approached, "Not one step nearer. Not one step!" As I did this I felt quite tall and "X" stopped in his tracks. I look at him with some curiosity since he seemed to be looking at me and yet not looking at me. Logically it seemed as if he was looking at me and yet his eyes did not really meet me at all but were looking at something slightly lower than me. I really couldn't quite decide if he was looking at me or something else. I then begin to reflect on the fact that I felt quite tall and that I hadn't realized that I was taller than "X". This is where the bit about "X" looking up at me comes in (see questionnaire). I can rewrite this if you like. It's on disk. It then occurred to me that he hadn't stepped any nearer. All these thoughts flew through my mind in rapid succession. As I realized this (this equals "that he hadn't stepped any nearer") I suddenly thought (with an interested pleasure) that I felt quite powerful. As I was contemplating this with some fascination, playing with the idea of trying it out in some way, a voice said "Oh no you don't." and I suddenly landed back into my body. In between hearing the voice and landing back into my body, I was wondering if this voice was "X". Then I wondered if it was me perceiving my thoughts (the voice did seem more female than male). Or if it was something entirely different. It was either in the midst of contemplating all this or perhaps even while I was running through the possibilities in my head that I suddenly came back into my body. I suddenly felt myself very much in my body -- much more in my body than I usually feel -- I found myself looking up at "X" with a sheepish grin on my face, although immediately preceding this was a vague feeling of disgruntlement that I'd been interrupted in my flow of thoughts (about where the voice had come from). I can't say I really felt the transition from being out of my body to being in my body. All I can say is that I suddenly felt as if I just come down to earth with a bump and that I was very much a physical entity in the world. Suddenly coming back into my body was, however, an incredibly pleasant sensation and made me want to laugh like a young child.

It wasn't until I was back in my body that I realized that I had been out of it. Not until I felt myself come back to earth, so to speak, did I apprehend the contrast between being in and being out of my body. Only when I was back in my body did I realize that I had an out of body experience.

**[SC1059]** I went to bed and was sleeping normally. I suddenly and vividly felt myself rising slowly into the air as if I were leaving my physical body. All of a sudden I felt myself traveling very rapidly, as if I could fly. I landed on my feet at the foot of my sister's bed. I stood at her feet watching her and her husband who were fast asleep. I remember that I did not find it very strange, I wanted to say hello to her, but she was asleep. I don't know how long I stood there but I remember feeling a strong physical presence as if I was really there in body and they were actually there physically. I whizzed back to my bed. The next day my sister telephoned me to tell me she had woken up during the night and seen me standing at the foot of the bed. I would not normally take part in surveys but I decided to as I knew I could verify this experience.

**[SC1060]** I woke up suddenly with a terrible fear sensing that someone was lying very close to me in the bed. I knew my husband was away from home so it wasn't him. I was afraid to look round so lay passive trying to overcome my fear. On the realization that there did not seem to be any physical danger the emotional fear settled but not totally. I looked down the length of my body trying to orientate myself and saw what looked like a transparent foot identical with my physical foot. The transparent foot sank into my flesh and blood foot. I lay quiet trying to understand [what] had happened. I finally sat up at the edge of the bed and began analyzing the experience. I concluded that 1. I had had an out-of-body experience, and 2. I had become consciously aware of being out and this caused the fear. 3. The body I sensed lying behind me was my own physical body. 4. I vowed if it ever happened to me again I will try to prove to myself that it was not just an over-active imagination.

The OBE above was the first of two but it was totally spontaneous. The last one I was "ready for" so I feel that it will not be as suitable for this questionnaire.

**[SC1061]** The strange experience (and I can remember it vividly) happened a long time ago. I was living in the US at the time and was about six or seven months pregnant with my third child. It was a happy pregnancy, planned and welcomed. I say this because I was in a happy frame of mind during the entire nine months. To cut a long story short during an early morning shower in a quite small bathroom off the main bedroom (setting the scene) I suddenly realized I was in actual fact looking into the shower stall at myself! It must have been from somewhere near the ceiling!! There was no feeling of panic when things returned to normal, nothing to suggest there had been a break in my life! Oddly enough this is how I would describe such an incident, a break in a life span.

On mentioning this to my doctor at my next check-up he described it as "being in another field".

**[SC1062]** I was at work in my office when I suddenly found myself up above looking down at myself working down below. I was floating at about ceiling level and I seemed to be at a point in space. It lasted a few minutes. It was quite a long time ago, but on the day it happened I mentioned it to my wife who remembers it happening. I was under a great deal of stress at the time at work with my boss etc. in a new managerial role, which I kept bottled up. I think I was also fairly recently married, adding to the general stress at the time (had I done the right thing with the right person?).

**[SC1063]** The incident happened when I was twenty-one. I was studying at Aberdeen University at the time and my finals were coming up. I had been studying alone in a building set aside for honors students. I felt tired (it was 9 or 10 at night) and leaned back in my seat to rest. I then felt my limbs get heavy and then realized I was floating outside my body. I instantly found myself vertical, floating about three feet off the ground. I was a yard or two away from my body and looking down at it. I could still feel attached to my body although if I had tried to I think I could have moved away. However I didn't. And the whole time, about two minutes, was spent just looking at my body. I then felt my body pulling me towards it, and at the same time, felt that I was already back in the body pulling the other self back. I felt a shock as the two parts "joined" again. I came to and needed to take in a deep breath. I was so scared about what had happened that I ran out leaving doors unlocked and lights on. I ran back to the Halls and told a friend what had

happened and he went back to lock up. This was my second, and so far, last experience. I have tried since to recreate the feeling that led to the experience but have not managed to leave my body at will.

**[SC1064]** In 1984 I had a stroke diagnosed as caused by high blood pressure. Put to bed by my wife, weakened by excessive vomiting, was talking to my wife and our next door neighbor who were trying to revive me. I found myself finding it harder to make myself heard and felt myself slipping away. All of a sudden I found myself floating on the ceiling surrounded by an extremely bright light and looking down at my body lying below me on the bed. Heard my voice getting weaker and weaker as my wife and neighbor were trying to hear what I was saying. I was feeling no pain, only a kind of oneness and a lovely wonderful feeling all around me until I must have passed out. All the time I was floating in this cloud of extremely bright and warm surroundings, I clearly recognized my body on the bed and my attempts at making myself heard by the two people alongside, and felt no attachment to my body at all.

**[SC1070]** I had a blood clot near my brain. I was given a 40/60 chance against coming through the operation. While I was being operated on I died. My experience was going through a long narrow tunnel. At the end of the tunnel was a lot of bright light. I tried to push my body hard to reach the light but never made it. I was floating through the tunnel on my back.

**[SC1071]** It happened on 3-4th April 1980. I had had an epidural whilst having my daughter Lucille. Things went terribly wrong and I became very ill with "meningitis". My minister was sent for and as he sat talking to me, willing me to live, I "died". Monitors went off and doctors and nurses rushed to me to give me CPR etc. I remember floating above the hospital bed looking down on them all and thinking how stupid they all were talking to me whilst I was on the ceiling. My minister was holding my right hand very tightly and saying "Your time is not up. Your baby needs you. Fight, Elaine, fight. You waited a long time for Lucille so please come back to us, for her sake, she needs her mum." The next thing I remember is someone in the room shouting "She's back." I was told later I had been "dead" for over 3 minutes. I was ill for about two weeks more but had no further experiences. I do believe that if the Reverend Tom Gordon had not been there holding on to me I would not have fought to live. I desperately wanted to get away from the pain I was suffering. I felt absolutely relaxed, free from pain and wonderful, whilst I was floating on the ceiling.

**[SC1072]** I had just gone through an operation and I was lying quite peacefully in bed in the hospital when I felt myself floating about ten to fifteen feet above. I looked down at myself lying there and took it all for granted. I cannot quite remember if I thought I was going to die but I had no fear, I am a bit religious, my spelling not improved one bit. I did mention this experience once or twice but I know it's very hard to believe: so I am very glad to read your request and this happened 20 to 30 years ago. I must have dropped off to sleep talking to my best friend God. Hope you believe me and thanks for your request.

**[SC1076]** Since I cannot identify my most recent OBE, I will describe the most recent class of OBE which occurred 10 years ago in connection with a series of ESP

experiments. They differed somewhat from my earlier more dramatic experiences.

Typically, while in a drowsy state, after waking in the morning, and wishing to achieve "separation" in order to seek impressions of an ESP target I would relax deeply until a sense of catalepsy developed (alternatively a state of vibration might arise spontaneously). Presently, a sensation as of inner arms stirring -- which provided I remained completely passive, would progress until the whole inner body has eased free. I was then able to move voluntarily, and the sense of vision would switch on to an unnaturally lit room. I would then walk across to (or reach out to) a box, being a replica of the distant target box except that it was in reality empty. Examining the content (by sight and touch) I will endeavor to gain a constant impression from the flux of images. With a sense of "mission completed" my consciousness would switch back to the physical body: particularly sudden terminations seemed associated with veridical impressions.

[SC1078] I was lying in a hospital bed looking up at a Chinese woman floating on a mattress. There was no smell and no noise. She wanted me to go with her. I knew this without her speaking or making any movement, like beckoning.

The overall feeling was complete stillness and calm. Everything was light (in weight) and the atmosphere was lilac-colored.

She wanted me to go with her. I wandered what to do and then heard myself talking from the right hand corner of the room. "No way, I'm not going with you. I'm not ready." I said and the me in the bed thought "Helen, be quiet. You could have been more polite." Then everything went to black again.

[SC1079] I was sitting in the garden shed where I kept my pet mice. I found myself looking down on myself, sitting there. I remember being concerned about whether I could get back to normal or not. The experience did not last long and was never repeated. I was about 6 to 7 years old at that time.

[SC1080] After leaving body, arrived "in a place" and I was surrounded by intense white light with a great sense of warmth and feeling of peace with oneself, after walking short distance, I felt a presence by my side. We walked a short distance and it started to take the form of a man who I knew we walked towards the source of the light which was a huge tunnel with singing which sounded like a massed choir. My friend told me I was not go any further and wait there while he went into the tunnel.

While he was away I tried to walk toward the tunnel of light but could not get anywhere (like walking on a treadmill). After a time, my friend came out from the light, towards me, and put his arm around my shoulder, turned me away from the source of the light, and told me I had to return. We walked away from light and the further we went from light, the feeling of the presence got less and less until it disappeared completely.

[SC1082] In 1964 I was employed by Air New Zealand (then known as "TEAL") as personnel manager. At that time the company operated Electra Turbo-Prop Aircraft from the air force base near Auckland for the services to Australia and the Pacific Islands. There was no flight simulator and base checks on air crew were carried out at dawn on the aircraft before it embarked passengers for a regular service flight. On the morning in question a check Captain and check Flight Engineer were assessing another Captain and

Flight Engineer. The procedure was being observed by a safety instructor and myself. My own observations were in connection with an industrial assessment of the role of the Flight Engineer on this type of aircraft.

The exercise consisted of a series of take-offs and landings and involved continuous circuit flying so that the crew members could be tested against various malfunctions, which required immediately corrective action (e.g., loss of engine power). The final exercise was peculiar to the Pacific Region, where alternate airports were wide apart, and required a rapid dive for penetrating a gap in cloud cover before landing became impossible.

Because of time constraints, this particular exercise had been commenced from a slightly lower attitude, and the flap setting adjusted to compensate. In the event the aircraft plummeted down, was caught in crosswind, and hit the runway at an uneven point. The tail section sheered off and the starboard wing and engine broke over the top of the fuselage. The engine ploughed into the forward cabin, spilling fuel which ignited almost immediately, filling the cabin with dense black smoke, followed by a wall of flame.

While the pilots were wrestling the controls after impact, the Check Engineer, safety instructor and I were ordered back to open the door in the forward cabin. As we entered we were enveloped by smoke and gripped each other's belts while the Engineer wrestled with the door. The flame then advanced towards us and we retreated back up to the flight deck where an emergency "eyebrow" window had been opened. And all six of us escaped in turn down the rope fixed above for that purpose. The aircraft exploded within half a minute or so of our reaching the ground and scrambling clear. During the period while the engineer was attempting to open the door, it seemed certain that we were trapped. It was then that I felt suspended above the action looking down on myself and the other two while everything slowed down. Within moments the sensation passed but I felt strangely calm and detached while we returned to the flight deck and made our escape. There was almost an indifference to events and no sense of panic. There were also no after-effects although the subsequent investigation classified the accident as "unsurvivable".

[SC1083] The experience I describe here happened when I was approximately nine years old, thirty-three years ago. But I do feel my memory of it is clear and correct enough to offer it to you for your research.

In the house where I lived then there was a toilet off the kitchen. This room was only large enough to house a W.C., wash-hand basin and a mirror on the wall. Because I was so young and of average height for my age, this mirror became quite important in my life. As I was able to judge how much I'd grown by how much of me showed in the glass. The mirror was placed on the wall above the basin, was roughly 12 inches by 9 inches and had a red plastic frame. About this time, when I was nine years old, I could just see the top of my head and my eyebrows. The image of myself in the mirror or at least the imagining of it became quite important but at no time was I inclined to cheat and stand on tiptoes to see more. That will have spoiled the whole thing. But once I did succumb to the temptation of raising my hands to see their reflection. I did this and literally in a flash was removed from my physical body, not a great distance, but similar to a double exposure on a film or ghosting on the TV. I looked at my hands in the mirror and felt as if they weren't my hands. I looked at them in the flesh so to speak and felt



them as if they were someone else's -- warm but "cotton-wooly". I can remember how long this lasted, seconds I should think, I do remember feeling slightly smug and I didn't tell anyone. I did try to re-enact this and was successful at least once more.

I have told my husband and children about this, and unlike other stories that lose their potency in the telling -- this experience is as powerful to me now as it was then -- no less so for the sharing.

[SC1084] About twenty years ago I began to develop a keen interest in sea caves. My interest developed in conjunction with spiritual and personal progress that I wanted to follow as a result of learning and reading many religiously-orientated books. The quality of personal awareness was quite incredible and given that I am a non-smoker, non-drinking vegetarian, the impetus for my increased interest was induced by a feeling of complete certainty that "at some other time" (some other life) I had frequented caves and lived in them. In one occasion whilst (1986) staying the night in a favorite sea cave, in Wester Ross I lay awake in the intense darkness unable to move and I witnessed a timeless scene of semi-naked people at the cave entrance. I was a mere observer but it took awhile before I rejoined my own body and my ability to move returned. My only plausible explanation seems to rest on the fact that I "rejoined" a scene from a previous life confirming for me that my avid cave-dwelling interest were almost certainly part of my subconscious love of such prior circumstances. Silence was total throughout, only thought prevailed.

[SC1087] I was sitting waiting my turn to play table tennis with one of the two friends who were actually playing, outside the main church of the part of Naples where I lived (Bagnoli), when without any notice I found myself at the side (I guess 2, 3 meters off) of the top of the bell tower which was on my right side (I guess about 15 meters higher). I was then very scared and two clear thoughts came "How can I return to my parents?" and "How can I go back to my body?" Then I saw myself, sitting, through the roof of the small building where the tennis table was. I did not know how to return, and then, I returned back, fluctuating like a leaf, and then near my body, a kind of jump inside. Altogether it should have been maybe one minute or a little longer.

I had no other experiences alike even though once much later when I was 40 in Basle one evening while resting in the bath silently, I had a sudden feeling of something similar and again fear came and I had to quickly come up out of the bath and switch on the hifi.

[SC1089] One afternoon I was not feeling well so I laid down to take a nap. I was half asleep, half awake and I felt odd. I felt my body begin to vibrate rapidly and then that I lifted out of my body about five feet. I still felt horizontal. It was a very brief sensation and then I felt I was back in my body. I had had other OBEs before and since this one I practice regularly trying to induce them at will.

[S1092] As a director of a roofing firm I was helping out to get a roof finished before Christmas 1982. The roof was prewar thin asbestos with narrow corrugations. It was being pressure-washed, dried with propane gas torches, then coated with heavy grade bitumin. Jokingly we said to each other, "Anyone who falls through will get more than a couple of broken legs. No one will survive such a fall." Very late in the afternoon I was

helping the operator of the pressure hose by pulling the hose out of the bus station and along the ridge to enable him to wash further down the near slope. By 4:30pm it was getting very dark but the operator was determined to finish and kept asking for more hose. Standing on the apex (18 feet above the concrete floor) I gave a hefty tug in some [illegible]. My feet slipped straight up and I went head-first through the asbestos leaving a surprisingly small hole. My left arm hit first, then my right, then my forehead and finally I fell to the left onto my left hip. The damage was: broken left wrist (scaffoid), severe split of the skin of my forehead between the eyebrows with small members of loose gravel-ly type stones being embedded right into the bone where I hit the concrete, moderate contusion on my left hip. To the onlookers I seemed to have broken my neck and although I kept moving slightly I was in their opinion only semi-conscious. Naturally I was bleeding profusely from my head injury, was wet, very dirty, and well daubed with bitumen from my labours during the day -- an appalling sight. The ambulance got me to the hospital rapidly, four stitches in my head and an attempt to set my wrist (completely failure) and eventually drained fluid from my left hip. Out by Christmas Eve, Church Christmas Day.

The practical details of the fall are as set out: the more perfect reality is that I saw a light and moved towards it, sailing through the chapel wall, leaving my body behind. The movement was effortless and sublimely comfortable; the light was intense without dazzle or scorch; it was love, joy and perfection and welcomed me unreservedly. The disappointment was that as I drew nearer and peace and contentment began to enfold me, so I realized that I had to draw back into my body which I was increasingly aware was sore and mutilated.

[SC1093] I was an undergraduate about 20 years old. I had become involved with a group led by a man who had had an enlightenment experience, in the Zen sense of encountering the absolute. The group was mostly loosely composed of a group of students who were trying to do spiritual work with this man -- this was not what you would call a cult. One day a group of these young people and myself were sitting around this man's kitchen table with the man present; we were just sort of chatting about different things, when suddenly I leaned back in my chair and then I was up on the ceiling. I looked down at my friends still talking around the table and I was struck by the way they looked, like robots. They seemed animated but lifeless somehow. I returned to my normal point of view (from inside my head) and didn't say anything to anyone about what had just happened. No one seemed to notice that anything had happened to me; I did not see my body from this vantage point. OBEs were a topic of discussion in this group, as were many other types of paranormal phenomena; however, I had never given it much thought or tried to have one. I may have experienced OBEs as a child but these memories are very hazy and dreamlike to me now.

[SC1097] Your article in Sunday Express, 23-10-94 brings to my mind vividly and still very clearly which discounts a dream. I am anything but a religious man, but then there is something that are beyond ken. Here is my story. On a Saturday afternoon in late June 1993 there was a fire in my kitchenette and I was overcome by smoke and my lungs were full of charred vinyl. When I was being taken the ERI by ambulance looked down on myself, and watched what was happening. One of the paramedics said to the other "it is a waste of time," but the other said "we have to keep trying." I have only recall coming

to in hospital about 7:30pm. I was not released until the Thursday evening. It is still vivid in my memory and I would recognize the paramedics if I saw them again. I am unable to account for this as I am anything but religious. I was 69 years of age at the time.

**[SC1100]** I decided during my final OOB experience that I was not returning to my body. I was not happy to hear the voice tell me my work on earth was not finished, I had to return. I was then in a wind tunnel traveling upwards at a terrific speed. I was slightly apprehensive. Everything went calm and I was shown something that I immediately recognized as something that I had forgotten, and I was very happy to see it. I did not have the return to body experience. All I was left with was the feeling of happy recognition of something which I could no longer recollect. This experience, the briefest is the one that all my life I have tried to recapture. I verified later that I had indeed been near death.

I feel my prior experience to OOB experience to round off my belief that I was OOB to escape pain. I allocated my limbs to members of my family, my leg the most painful (being burned to the ankle bone), became my brother Alexander. I sympathized profusely with Alexander in his great pain.

**[SC1102]** I was on a life support machine at the time of my experience. I had two major operations and had been transferred to a hospital many miles away tho I was unaware of this at the time. I know I was on a high dosage medication and very ill at the time of my experience. I found myself up on the ceiling floating face down, watching myself lying on the bed, plugged to lots of machines and drip-feeds, I was not frightened. I felt very safe, warm, protected, there was a smell of flowers and I was dressed in floaty white garments. Everything was bright and white. I then saw another ward (this event happened next day, it was part of an examination for consultants from overseas, tho not in the ward I was in or one I was ever in). I was once again up on the ceiling looking over the beds, all the curtains were drawn, patients sitting up in bed, doctors of all nationalities came in, one to each patient and tried to diagnose their disfunctions without the patient helping them. I then seemed to be back above myself in the intensive care unit, again the only one there (tho I know there was four of us) I once more felt warm, safe, all white light around me, looking down. Aware of my body on the bed, but at the time unconnected to it. I was not frightened at that point, however, I appeared to have returned to my body as I was aware of the resuscitation around me as I was on my back on the bed looking up, everything was in color and I was frightened at that point but somehow knew I was not going to die.

**SC[1101]** I had arrived on the early evening at the flat of two friends in Edinburgh prior to going through to Glasgow for a fancy dress party. We were in the living room and one of my friends rolled a joint (marijuana with tobacco) which we smoked. I probably took two - three tokes on the joint, a few moments later my friends went upstairs to change into fancy dress.

In the middle of the room was an old-fashioned sea-chest which there was ample room to walk around and about the room other chairs and the usual sort of household items. I stood up and began doing some deep breathing yoga exercises which involves breathing through the nose at the same time as stretching up unto your tiptoes and bringing your arms up until your hands touch above your head, then slowly releasing your

breath through the nose as you bring your arms down to your sides and down onto your soles again. The process is repeated rhythmically several times but on this occasion I can't recall how many nor do I recall the transition into the Obe -- but the next instance I found myself crawling on my hands and knees very fast in an anti-clockwise direction around the sea-chest, then springing onto my feet at which point it appears as if I had stood apart from myself watching the procedure. If you imagine looking down on the scene I crawled from the five o'clock position around anti-clockwise and stopped at the 12 o'clock position on the second revolution. I felt as if I was being dragged and could hardly keep up with the pace I was crawling at. I don't recall the details too clearly now, afterwards but I think I staggered about a bit and fell breathless and dry in the mouth, so I went into the bathroom and poured some water from the sink tap into a cup, and was amazed to find it tasted very sweet and wine-like. I remember thinking some sort of miracle had occurred. The rest of the evening had an unreal quality and time seemed to have stopped.

[SC1103] My last one, induced at will, was the most unsatisfactory of them all. I was very uncomfortable on returning to my body, somewhat hurriedly. I did not feel completely at ease in my skin so I decided to discontinue further attempts.

[SC1104] My two very short and simple experiences are fully described in the questionnaire.

[SC1114] The experience occurred as planned. I was seated in a chair in the lounge of a two-story house. The inducer, H., placed his hands on my shoulders and I relaxed back. I felt myself start to lift, leaving my body on the chair, through the top of my head. I traveled up through the floor of the room above and on into the building's attic.

The sensation was strange, the experience is similar to that of being underwater. Visuals are present but slightly distorted, sounds are muffled.

I returned via a roundabout, spiraling route but never left the house, then return to the body was effortless, but accompanied by a small physical "jerk".

I was not aware of H. who was stood behind my physical behind but was aware of my own body in the room.

[SC1116] This is not my most recent experience but the most predominant one.

Whilst under anesthetic for a battered finger I suddenly found myself at ceiling height watching the operation. On returning to consciousness, I was demanding to go and catch the bus home but was told I will have to wait for an ambulance as they had trouble bringing me around. It was then I remembered the old dream I had which seemed to be in three episodes:

1. I was a teen-age boy in a straight jacket and a lady (in this situation my mother) was pleading with a man in purple velvet robes and crown to release me to my true status.

2. This scene was sepia-coloured. I was a male riding on horseback with a sword and dressed in martial uniform with a turban.

3. In this episode I was also male looking down at a beautiful valley from a library window. Strangely approximately 30 years later I will actually see this scene in the monastery of Valedemosa, Mallorca where Chopin stayed.

The view from the ceiling followed the dreaming, it is probably I was allergic to

the anesthetic as I had been given an injection the previous day without real explanation why. On reaching hospital I was asked if I'd been alright yesterday and I said "Yes". Well, my periods had started and I'd been sick, more violently, than usual but I considered that normal as I was always sick the first day. Apparently the injection had been to test the anesthetic (I can not remember how I came to accept it without full explanation). I have since had further operations without effect.

[SC1117] To start off with it was like a dream, I was with J.C. (A university friend, not particularly close) on some water slides and I banged my head on the way down. The next thing I knew was that my body was lying flat on my back, my hair was blonder than it really is, and it was laid out long and flat on the pillow going away from my head. But the weird thing about it is that I knew that I wasn't asleep, but that I couldn't move my body. I could think and feel and hear, but all I could see was a poster on the ceiling above the bed where my body was lying, which there is not in my room. The poster had cartoon characters on it, and for some reason I found myself looking up at this one particular character, who happened to be a big-eyed brown bear and he seemed really friendly.

The next thing I know I'm looking at myself through the eyes of this teddy bear on the poster and the whole thing is totally bizarre.

So, I'm looking down on myself from this teddy bear's eyes, but it's not like I'm totally out from my body that's lying there, because I'm still thinking from the bed. The only thoughts that I seemed to have are about how the poster above me looks, that the bear on the poster really stands out, and that his eyes looked hollow, deep and white.

At the same time I could see through the eyes of this bear in the poster at my body, and I was definitely conscious that it was me I was looking down at. I just looked cold.

Then I remembered a sense of falling down from somewhere higher than the ceiling, a gradual lowering that felt really nice -- a kind of relaxing, calming and soothing experience. I felt myself being lowered a lot of times towards the body that I had been observing. At the time it didn't feel weird or scary, I felt relieved, reassured and happy during the whole experience.

When I was being lowered back to the bed, at each stage of getting lower, I recalled feeling that I had, although I hadn't arrived back. The sensation of being lowered was one of excited anticipation and elevation even tho I was getting closer to the ground. And when I did get there I felt so heavy, like somebody had drugged my drink, and then I relaxed and rose to being totally happy and at ease.

Friday night I felt that there was something evil in the room and I slept in J.O.'s bed (absent roommate). Saturday night I slept at Ben's house because I didn't want to sleep in there. Finally, slept in my bed on Sunday again, and it was okay, but it took me ages to go to sleep.

[SC1120] It was not a full OBE. Perhaps it is doubtful to include it in the study. It developed in the context of a lucid dream -- saw my face/body in the dream and asked myself the question "could this be an OBE"? At that point I felt a pulsating sensation as if "I"/ "my" dream body was fitting into my physical one. The experience was an impressive one at the time. I thought there was something extraordinary to it. I also thought that I recognized the feelings/sensations involved -- that this evoked memories of having experienced this before perhaps as a child.

[SC1121] During a summer afternoon in 1986 I was lying on my bed relaxing when (for no apparent reason) my muscles started to contract suddenly and my body became stiff. I was rather puzzled at first but then upon finding that I could not move at all I panicked and tried to fight my way out and tried to struggle and move about. I felt roaring sounds in my ear and bright flashes around my head and thumping noises. My body became lighter and lighter and I felt strong floating sensation but due to my struggles I was moving like a yoyo. I did not completely go out of my body, but while only with the top half of my body, and then I was jolted back very unpleasantly and found myself panting and aching all over and able to move my body again. My girlfriend who was nearby writing swore to me I had not moved an inch but lay like a log which I just could not believe after all that I had felt. It was definitely real but very unnerving. It changed my whole outlook of life.

[SC1122] This was a very brief one during a guided imagery exercise. I found myself, as instructed, to be floating above the house we were in. It all became suddenly much clearer. I decided to go in through the roof down the main staircase and into the room where about 12 of us were (I was remembering that someone told me that day to try, in lucid dream, to write with your own body and I was doing this. I was kind of between sleep and waking). I saw myself lying there on the floor and slipped back in. It was a very odd feeling and I became unusually aware of being in my body.

As I said it was very brief but most of my OBEs are.

[SC1125] I was aware that altho my body was still in bed, I was perfectly alert. I saw my husband who I knew was presently sleeping at my side appear before me and I was also aware that my daughter, Sylvia, was standing alongside me on my right hand side. My husband was facing us and was grinning from ear to ear with delight while with his hands, and whilst in a squatting position, he pulled open his vulva. I was not shocked, not greatly surprised, it felt quite alright to accept this experience. I experienced no reaction of shock from Sylvia either. I was only mildly surprised that my husband showed us a vulva instead of a penis. I felt that this was a gift of knowledge to myself and my daughter.

[SC1126] 13 January 1995. Catalepsy. The first thing I seemed to realize is that my "calf" snaps away from the thigh (my right leg?), from the bent fetal attitude to a more stretched out position. I then noticed that my legs seemed to vibrate or oscillate along a head to foot axis. I then raised my "head and shoulders" up from the bed using my "arms" as a lever. I kneel on the bed, facing the pillow. For awhile I seemed to forget whether I am kneeling or standing, but I become aware of the feel of my "knees" on the bed/duvet (or cushion of air?). For some reason, I was too nervous to move far from the bed, so I stayed in position on the bed. During all this time I could not see anything.

Somehow, I got "back into the body". For some obscure reason I asked to be shown a past life. I then started to see pulsating colors, similar to some of those I will see as a child in bed at night. This is certainly a new one, this! I come out of this, again, not really knowing why I didn't wait to see the past life details (it will seem that during this state, there is still only a limited amount of control over what you do, even when based "in the body"). I'm left with a pulsing blurry-eye (vis a vis, after vigorous exercise, sometimes).

[SC1127] As a small child, approximately 5-6 years old, while playing hide and seek with my brother and sister I hid behind a large bush growing close to the farm house where we lived. I squatted down and waited for what seemed several minutes, quietly listening for sounds of approach. Suddenly I was standing up, slightly above and to the left of my body, looking down at it. I remember thinking, "Why? That's me! I look so small." and then snapping back into my body. I felt startled and curious about "the weird thing that just happened," but not really frightened. After a moment I heard my brother coming and I jumped up and ran away.

I remember seeing clearing my small child body hunkered down next to the bush with my hands on my knees. I seemed to be staring into the distance. I think the startlement of realizing that it was me that I was looking at was what caused me to snap back into my body. The experience felt distinctively different from dreaming, or imagining etc. It felt distinctly real. It has never happened again to my knowledge. The experience lasted several seconds, during which I experienced a low level feeling of detachment.

## Appendix 2: Questionnaire Used in the Study Reported on Chapter 4 (Spanish Version)

### Cuestionario

Nombre:

Dirección:

Población:

Provincia:

D.P.:

1. Sexo:

- a. Masculino
- b. Femenino

2. Lugar de nacimiento:

3. Nacionalidad:

4. Ocupación o Profesión:

5. Educación (indique sus estudios o grados académicos. Si no tiene estudios académicos indíquelo también):

6. Estado civil:

- a. casado
- b. soltero
- c. divorciado
- d. separado

7. Indique qué religión profesa:

8. ¿Cuán religioso/a se considera usted?

- a. No soy religioso/a
- b. Un poco religioso/a
- c. Moderadamente religioso/a
- d. Muy religioso/a

9. ¿Cuán frecuentemente recuerda usted sus sueños?

- a. Nunca
- b. Rara vez (una o menos veces al mes)
- c. Algunas veces (2 o 3 veces al mes)
- d. Ocasionalmente (1 o 2 veces a la semana)



- e. Frecuentemente (3 o 4 veces a la semana)
- f. Siempre (todos los días)

10. ¿Ha tenido usted algún sueño durante el cual usted sabía que estaba soñando?

- a. Sí, una vez
- b. Sí, más de una vez (aproximadamente, cuantas veces?: )
- c. No

11. ¿Ha tenido usted algún sueño que se correspondiera en detalle a un evento que sucedió después y del que no sabía o no esperaba que ocurriera cuando tuvo el sueño?

- a. Sí, una vez
- b. Sí, más de una vez (aproximadamente, cuantas veces?: )
- c. No

12. ¿Ha tenido usted, *estando despierto/a*, una sensación, impresión, o visión de que algún acontecimiento inesperado había ocurrido, estaba ocurriendo, o iba a ocurrir, y luego se enteró que efectivamente había tenido lugar en alguna parte?

- a. Sí, una vez
- b. Sí, más de una vez (aproximadamente cuantas veces?: )
- c. No

13. ¿Ha tenido usted, *estando despierto/a y sin la influencia de enfermedades, drogas, o alcohol*, la impresión de ver, oír, o ser tocado/a por alguien; no pudiendo achacarlo a causas físicas u otras razones explicables?

- a. Sí, una vez
- b. Sí, más de una vez (aproximadamente cuantas veces?: )
- c. No

14. ¿Ha visto usted alguna luz o luces, un resplandor, o un "campo de energía" alrededor de una persona o partes de su cuerpo que no pudieran explicarse por causas físicas u otras razones explicables?

- a. Sí, una vez
- b. Sí, más de una vez (aproximadamente cuantas veces?: )
- c. No

Si su respuesta es "sí", por favor descríbala brevemente (use una hoja aparte si es necesario)

15. ¿Ha tenido usted alguna experiencia en la que se haya sentido en contacto directo o como si fuera parte de Dios, la naturaleza o sus alrededores?

- a. Sí, una vez
- b. Sí, más de una vez (aproximadamente cuantas veces?: )
- c. No

16. ¿Ha tenido usted la experiencia de ver un objeto como se movía solo sin que pueda explicarlo achacándolo a causas físicas o a cualquier otra explicación racional?

- a. Sí, una vez
- b. Sí, más de una vez (aproximadamente cuantas veces?:    )
- c. No

17. ¿Ha tenido usted alguna experiencia en la cual usted se a sentido fuera o separado/a de su cuerpo físico, con la sensación mental de que ha estado en un lugar diferente al de donde se encontraba su cuerpo físico?

- a. Sí, una vez
- b. Sí, más de una vez (aproximadamente cuantas veces?:    )
- c. No

Si su respuesta es "si", describa por favor su experiencia o sus experiencias más recientes (use papel adicional si es necesario):

#### LAS SIGUIENTES PREGUNTAS HACEN REFERENCIA A LA PREGUNTA 17

Si ha tenido la experiencia de sentirse fuera de su cuerpo, por favor responda a la siguiente cuestión:

- A. ¿Puede usted tener la experiencia a voluntad?
- 1. No
  - 2. Sí, rara vez
  - 3. Sí, algunas veces
  - 4. Sí, casi siempre
  - 5. Sí, siempre

Si ha tenido más de una experiencia, conteste las siguientes preguntas en relación a su vivencia más reciente. Si ha tenido sólo una experiencia, conteste en relación a ella.

B. ¿Tuvo usted la sensación de salir de su cuerpo al comienzo de la experiencia?

- 1. Si, sentí que estaba saliendo del cuerpo físico
- 2. No, me encontré de repente fuera del cuerpo físico
- 3. No lo recuerdo con precisión

C. ¿ Vió usted un túnel durante su experiencia?

- 1. Sí, cuando estaba saliendo de mi cuerpo físico
- 2. Sí, cuando estaba regresando a mi cuerpo físico
- 3. Sí, durante otros momentos que los mencionados en 1 y 2.
- 4. No

D. ¿De que que forma se vió a si mismo/a durante la experiencia?

- 1. En un cuerpo similar al mío
- 2. Sin cuerpo alguno

3. En formas tales como nubes, niebla, bolas de luz, o un punto en el espacio
4. No recuerdo
5. Otra (describala):

E. ¿Percibió usted durante la experiencia alguno de los siguientes fenómenos?  
(Puede indicar más de uno)

1. Luces
2. Vibraciones
3. Música
4. Crujidos en la cabeza
5. Cordón o rayo de luz entre usted y su cuerpo físico
6. Imágenes sobre eventos o acciones de su vida antes de tener la experiencia
7. Voces
8. Entidades espirituales
9. Eventos verídicos que estaban sucediendo en otro lugar lejano al de su experiencia
10. Sensación de flotar
11. Sensación de movimiento
12. Visión del cuerpo físico

F. ¿Como describiría usted el entorno en el que se encontraba durante su experiencia?

1. Similar al entorno usual
2. Como una dimensión diferente al mundo habitual (describalo):

3. De otra manera (describala):

G. ¿Tuvo usted la sensación de regresar a su cuerpo al final de la experiencia?

1. Sí, sentí que estaba entrando en mi cuerpo físico
2. No, me encontré de repente dentro de mi cuerpo físico
3. No lo recuerdo

¿Está usted interesado/a en contestar preguntas adicionales? Si su contestación es afirmativa le enviaremos otros cuestionarios a su dirección postal.

1. Sí
2. No

(Por favor, no llame telefónicamente a la redacción; el trabajo sobre este cuestionario se desarrolla en la Universidad de Edinburgo y nos sería imposible atenderle. Cualquier respuesta o comentario, háganoslo llegar por escrito). Gracias de nuevo por su colaboración.

## Appendix 3: Questionnaire Used in the Study Reported on Chapter 4 (English Translation)

### Questionnaire

Name:

Address:

City:

Province:

Postal Code:

1. Sex:

- a. Male
- b. Female

2. Place of birth:

3. Nationality:

4. Occupation or Profession:

5. Education (indicate your studies or academic degrees. If you do not have academic studies indicate so):

6. Marital status:

- a. Married
- b. Single
- c. Divorced
- d. Separated

7. Indicate what religion you practice:

8. How religious do you consider yourself to be?

- a. Not religious
- b. Slightly religious
- c. Moderately religious
- d. Very religious

9. How frequently do you remember your dreams?

- a. Never
- b. Rarely (once or less a month)
- c. Sometimes (2 or 3 times a month)
- d. Occasionally (1 or 2 times a week)

- e. Frequently (3 or 4 times a week)
- f. Always (every day)

10. Have you ever had a dream during which you knew that you were dreaming?

- a. Yes, once
- b. Yes, more than once (estimate how many: )
- c. No

11. Have you had a dream that corresponded in details to an event that happened afterwards and about which you did not know or did not expect to occur when you had the dream?

- a. Yes, once
- b. Yes, more than once (estimate how many: )
- c. No

12. Have you ever had, *while awake*, a sensation, impression, or vision that an unexpected event had occurred, was happening, or was going to happen, and you later learned that the event had occurred some place?

- a. Yes, once
- b. Yes, more than once (estimate how many: )
- c. No

13. Have you ever had, *while awake and when you were not under the influence of disease, drugs, or alcohol*, the impression of seeing, hearing, or being touched by someone; something that could not be explained by physical causes or other explanations?

- a. Yes, once
- b. Yes, more than once (estimate how many: )
- c. No

14. Have you ever seen a light, lights, a glimmer, or an “energy field” around a person or parts of its body that could not be explained by physical causes or other explanations?

- a. Yes, once
- b. Yes, more than once (estimate how many: )
- c. No

If your reply is “yes”, please describe your experience briefly (use separate paper if necessary)

15. Have you ever had an experience in which you felt in direct contact or as if you were part of God, nature, or your surroundings?

- a. Yes, once
- b. Yes, more than once (estimate how many: )
- c. No

16. Have you ever had the experience of seeing a physical object move by itself which could not be explained through physical causes or through other rational explanations?

- a. Yes, once
- b. Yes, more than once (estimate how many: )
- c. No

17. Have you ever had an experience in which you felt outside of or separated from your physical body, with the subjective sensation of being at a different place from that of your physical body?

- a. Yes, once
- b. Yes, more than once (estimate how many: )
- c. No

If your answer is "yes", please describe your only experience or your most frequent experience (use additional paper if necessary):

#### WHAT FOLLOWS REFERS TO THE EXPERIENCE OF QUESTION 17

If you have had the experience of feeling outside of your body, please reply to the following:

A. Can you have this experience at will?

1. No
2. Yes, rarely
3. Yes, sometimes
4. Yes, almost always
5. Yes, always

If you have had more than one experience answer the following questions in relation to your most frequent experience. If you have had only one experience answer the questionnaire in terms of this experience.

B. Did you have a sensation of leaving the body at the beginning of the experience?

1. Yes, I felt I was leaving the physical body
2. No, I found myself suddenly out of the physical body
3. I do not remember precisely

C. Did you see a tunnel during your experience?

1. Yes, when I was leaving my physical body
2. Yes, when I was returning to my physical body
3. Yes, during moments other than those mentioned in 1 and 2
4. No

D. In what form did you see yourself during the experience?

1. In a body similar to mine
2. Without any body
3. In forms such as clouds, fog, balls of light, or a point in space
4. Do not remember
5. Other (describe):

E. Did you perceive during the experience some of the following phenomena? (*You may select more than one*)

1. Lights
2. Vibrations
3. Music
4. Crackings in the head
5. Cord of ray of light between you and your physical body
6. Images about events of actions of your life before having the experience
7. Voices
8. Spiritual entities
9. Veridical events happening at a place distant from that of the experience
10. Floating sensation
11. Sensation of movement
12. Seeing the physical body

F. How would you describe your surroundings during your experience?

1. Similar to the usual surroundings
2. A dimension different from the usual world (describe):
  
3. Other (describe):

G. Did you have the sensation of returning to the body at the end of the experience?

1. Yes, I felt I was entering into my physical body
2. No, I found myself suddenly inside my physical body
3. Do not remember

Are you interested in answering additional questions? If your answer is yes we will send you other questionnaires to your postal address.

1. Yes
2. No

(Please do not phone the editorial offices; the work regarding this questionnaire is being conducted at the University of Edinburgh and it will be impossible to answer you. Please send any reply or commentary to us in writing.) Thank you again for your participation.

## Appendix 4: OBE Questionnaire Used in the Study Reported in Chapter 5

Number:

Sex:

- Male
- Female

Age:

Ethnic Background:

Nationality:

Place of birth:

Usual occupation:

Educational background and/or vocational training:

Marital status

- Single
- Married
- Divorced
- Separated
- Widowed

Religion while growing up:

Current religion (only if you practice):

How religious do you consider yourself to be?

- Not religious at all
- Slightly religious
- Somewhat religious
- Religious
- Very religious
- Extremely religious

How did you come in contact with this project?

- Approached by researcher
- Saw advertisement in a newspaper (please specify which newspaper)
- Saw advertisement in newsletter or magazine (please specify which publication)
- Referred by (please state who this person is)
- Other (please specify)



How many times have you had an out-of-body experience (OBE)? (please approximate if necessary)

- Once
- 2-5
- 6-20
- 21-40
- 41-60
- 61-80
- 81-100
- Over 100

Can you have OBEs at will?

- Never
- Sometimes
- Frequently
- Most of the time
- Always

If you have had more than one OBE please describe THE MOST RECENT ONE below. If you have had only one experience, please describe it here. Use additional paper if necessary. BE as detailed as you think you need to be, to fully describe your experience.

If you answered anything other than never in the question about being able to have an OBE at will, please describe how you induced the experience.

PLEASE ANSWER THE FOLLOWING QUESTIONS IN TERMS OF THE OBE DESCRIBED ON PAGE 2, THAT IS YOUR MOST RECENT ONE, OR THE ONLY ONE YOU HAVE HAD. Feel free to use additional paper to write your descriptions if necessary and to write additional information on the questionnaire.

My age AT THE TIME of the experience was (if you do not remember please approximate).

How long ago did you have the experience? (Please approximate in days, in weeks, in months or in years).

Under which of the following conditions did you have your OBE? (Check only one, that which you think characterizes best your situation at the moment of the experience)

- Exhaustion
- Illness
- Physical crisis (such as heart attack or fainting)
- Emotional state or shock (such as fear, joy or sorry)
- Just before going to sleep
- Sleep
- Waking up
- Resting
- Prayer or meditation

- Routine activities (such as walking or doing manual work)
- Activities requiring attention (such as talking, using a complex machine, or making decisions)
- Influence of drugs or medicines
- Accidents (such as falls or a car crash)
- Voluntary induction
- Other (please specify)

Do you believe that when you had your experience you were near death?

- Yes (please describe)
- No (please describe)

When you had your experience, were you passing through any specific events such as feeling particularly happy or sad about life, feeling sure or uncertain about yourself, dealing with personal gain or personal loss, feeling that life was meaningful or lacking in meaning, or anything else you consider important?

- Yes (please describe)
- No (please describe)

During the experience, did you see your physical body?

- Yes (please describe)
- No (please describe)

If "Yes", was your physical body:

- Active (such as talking or moving)? (Please describe)
- Semi-passive (such as lying down or relaxing, but with some movement). (Please describe)
- Passive (such as unconscious, entranced, with no movement) (Please describe)

What was the position of your physical body during your experience?

- Lying face up
- Lying face down
- Sitting up
- Standing
- Did not notice/no recollection
- The position changed during the experience (please specify)
- Other (please specify)

The experience lasted (approximate)

- 1-30 seconds
- 30-60 seconds
- 1-5 minutes
- 5-15 minutes
- 15-30 minutes
- 30 minutes - 1 hour
- 1-3 hours

- Over 3 hours (please approximate)

Going out-of-the-body occurred:

- Slowly, gradually  
 Somewhat slowly  
 Somewhat rapidly  
 Rapidly, suddenly

Just before leaving your body, did you feel you could not move your physical body?

- Yes (please describe)  
 No  
 Did not try to move

Were you aware of sensations of getting out of your body at the beginning of the experience?

- Yes (please describe)  
 No, I found myself suddenly out

If "Yes", from which part of the body did you have the sensation of getting out?

- Head  
 Stomach  
 Chest  
 Legs  
 Feet  
 Complete body  
 Other (please specify)

While going out-of-your-body, did you lose consciousness?

- Yes (please describe)  
 No

While going out-of-your-body, did you feel a sensation of falling?

- Yes (please describe)  
 No

While going out of your body, did you feel of sensation of rising?

- Yes (please describe)  
 No

While going out-of-your-body, did you feel as though you were passing through a dark tunnel, enclosure or place?

- Yes (please describe)  
 No

While going out of your body, did you feel vibrations or sensations of tingling in your body?

- Yes (please describe)
- No

While going out of your body, did you hear any sounds?

- Yes (please describe)
- No

If you heard sounds during your OBE, were any of these sounds (CHECK ANY THAT APPLY)

- Buzzing sounds?
- Clicking or snapping sounds?
- Wind-like sounds?
- Other? (Please specify)

In what position did you perceive yourself to be when you first found you were out of your body?

- Horizontal over the physical body
- Vertical position along the physical body
- Far away from the physical body
- Other (please specify)

During the experience I perceived myself

- In another body, similar to the physical body (please describe)
- Without any body (please describe)
- In a cloud, mist, ball of light or point in space (please describe)
- No recollection
- Other (please specify)

During the experience

- I stayed extremely close to the physical body (less than an inch to 6 inches)
- I stayed very close to the physical body (6 inches to 1 foot)
- I stayed close to the physical body (1 to 3 feet from it)
- I stayed relatively close to the physical body (3 to 5 feet from it)
- I traveled away from the physical body (5 to 15 feet from it)
- I traveled far away from the physical body (15 to 25 feet from it)
- I traveled very far away from the physical body (25 feet to several miles from it)
- I traveled extremely far away from the physical body (to other countries or to far away locations)
- The distance varied (please specify)

During the experience (YOU MAY ANSWER MORE THAN ONE)

- I entered a place different from my usual surroundings, one that may be described as a dimension or a spiritual place (please describe)
- I stayed in my usual surroundings (including your room, house, known streets, or places you recognized) (please describe)
- Other (please describe)

During the experience, did you perceive the environment through (CHECK ANY THAT APPLIES)

- Vision?
- Hearing?
- Touch?
- Temperature?
- Movement?
- Smell?
- Other (please describe)

During your experience, could any of the following senses be described as the dominant one?

- Vision?
- Hearing?
- Touch?
- Temperature?
- Movement?
- Smell?
- Other (please describe)

During your experience, did you see both your physical body and a second body of your own while feeling located in a third position in space?

- Yes (please describe)
- No

During the experience, did you see your surroundings MOST OF THE TIME from above, as if you were elevated and looking down?

- Yes (please describe)
- No

During the experience, did you see lights around you or at a distance?

- Yes (please describe)
- No

During the experience, did you see something like a ray of light, a cord, a ribbon or a rope connecting your physical body with your out-of-body location?

- Yes (please describe)
- No

During your experience, did you see images of events or actions that took place in your earlier life?

- Yes (please describe)
- No

If "Yes", could the frequency of the images you saw be described as

- Few
- Some
- Several
- Many

Did you feel that the images conveyed the sense that some judgment was being passed on you?

- Yes (please describe)
- No

Did you hear any voices related to the visual images?

- Yes (please describe)
- No

During the experience, did you see any figures you might describe as spiritual entities or beings? (Do not include perceptions of persons you felt were physically present around your physical body, or in the physical surroundings of the place you visited)

- Yes (please describe and state how many figures you saw)
- No

If you saw figures during your OBE:

Would you describe those figures as

- Deceased family members?
- Deceased close friends?
- Deceased acquaintances?
- Religious figures?
- Unrecognized figures?
- Other? (Please describe)

Was there any communication between you and the figure or figures?

- Yes (please describe)
- No

During your experience, could you see through physical objects such as walls?

- Yes (please describe)
- No

During your experience, did you see

- In color (like normal vision)?
- In black and white only?
- In one dominant color?
- Any combination of the above or anything else? (Please describe)

During your experience, could you see behind your head without turning around (360 degree vision)?

- Yes (Please describe)
- No

During your experience, could you see around corners?

- Yes (Please describe)
- No

During your experience, was your vision

- Just like normal vision?
- Lost on occasion? (Seeing at some moments but not seeing in others) (Please describe)

During your experience, could you see in the darkness?

- Yes (please describe)
- No (please describe)
- I was not in the dark

During your experience, were your surroundings illuminated by what, in your estimation, was something other than normal light?

- Yes (please describe)
- No

During your experience, did you obtain information about events such as conversations or incidents happening at a different location from your physical body?

- Yes (please describe)
- No

If "Yes" were you able to verify the event? (Please describe)

If you were able to verify the event, did you tell anyone about your experience?

- Yes (would you write in this person's name and address below with the understanding that he or she will be contacted for additional information if they agree?)
- No

During your experience, were you seen or perceived in any form by other persons in the place where you were located while you felt that you were out-of-the-body?

- Yes (please describe)
- No

If “Yes” would you write in the name and address of any witness to your “visit” with the understanding that he or she will be contacted for additional information if they agree?

During your experience, was your visual perception

- Clear, bright?
- Same as usual?
- Confused, foggy?

During your experience, did you see anything resembling mist, fog, or clouds around you?

- Yes (please describe)
- No

During your experience, how did your thinking and mental clarity compare with how you felt before the experience?

- Improved
- Same
- Worse

During your experience, did it seem to you that your feelings and mood were, as compared with how you felt before the experience,

- Improved (secure, peaceful, tranquil, happy)?
- Same
- worse (insecure, tense, confused, unhappy)?

During your experience, did you feel

- More relaxed than usual?
- As relaxed as usual?
- Less relaxed as usual?
- Much less relaxed than usual?
- Not relaxed at all?

During your experience, did you hear anything you could describe as music?

- Yes (please describe)
- No

If “Yes” would you describe the music as

- Beautiful?
- Nothing special?
- Unpleasant?

Would you say the music’s sound was

- Instrumental or orchestral?
- Choral?
- Impossible to classify?



During your experience, did you hear any voices you could not explain normally?

- Yes
- No

During your experience, did you hear any of the following? (CHECK ANY THAT APPLY but do not include any that occurred at the beginning or at the end of the experience.)

- Voices?
- Wind-like sounds?
- Clicking or snapping sounds?
- Buzzing sounds?
- Other? (Please specify)

During your experience how would you describe the degree of separation from the physical body that you had MOST of the time?

- Little separation (sensation or consciousness mostly related to the physical body)
- Partial separation (some sensation or consciousness related to the physical body)
- Almost complete separation (little sensation or consciousness related to the physical body)
- Complete separation (no sensation or consciousness related to the physical body)

During your experience, did your consciousness oscillate or change continuously from your out-of-body location to the physical body?

- Yes (please describe)
- No

During your experience, did you have the sensation of having a second out-of-body experience after you had left your body (that is, a second separation once you had left the physical body)?

- Yes (please describe)
- No

During your experience, did you have a feeling or sensation of floating?

- Yes (please describe)
- No

During your experience, did you move

- Very slowly?
- Somewhat slowly?
- Normally?
- Somewhat fast?
- Fast?
- Very fast?
- Instantly? (That is, you appeared in another location with no transition or

- sense of movement)
- With different speeds? (That is, some times slowly, fast or instantly; please describe)

During your experience, were you able to control your movements? (Do not include movements related to your return to the body)

- Not at all
- Sometimes
- Most of the time
- Always

PLEASE DESCRIBE.

During your experience, could you pass through matter such as walls and furniture?

- Yes (please describe)
- No

During your experience, could you touch physical objects and feel that you were touching something physical?

- Yes (please describe)
- No

During your experience, could you move physical objects?

- Yes (please describe)
- No

During your experience, could you manipulate your environment so as to change the surroundings by mere thought?

- Yes (please describe)
- No

During your experience, did you feel connected in any way with your physical body?

- Yes (please describe)
- No

If "Yes" did your sensations involve (CHECK ANY THAT APPLY)

- Movement of the body?
- Touch or pressure on the body?
- Emotional feeling of connection?
- Other (please specify)

During your experience, did you feel a sense of energy surging through you (do not include feelings or vibrations)?

- Yes (please describe)
- No

During your experience, how solid would you describe your out-of-body self as compared to that of your physical body?

- Not solid at all
- Slightly solid
- Somewhat solid
- Fairly solid
- Almost solid
- Solid
- More solid than usual

During your experience, did you feel a sense of oneness or unity with your surroundings? That is, did you feel you had become part of your surroundings or connected to them?

- Yes (please describe)
- No

During your experience, did you feel your surroundings expand or contract?

- Yes (please describe)
- No

During your experience, did you have a feeling of all-knowing and understanding?

- Yes
- No

During your experience, was time

- Standing still (frozen)?
- Slower than usual?
- Same as usual?
- Faster than usual?
- Other? (Please specify)

During your experience, did you feel you were moving or traveling in time?

- Yes (please describe)
- No

If "Yes", did you feel that

- Time was standing still, frozen?
- Time was slower than usual?
- Time was the same as usual?
- Time was faster than usual?

Returning to the body happened

- Slowly, gradually
- Somewhat slowly
- Somewhat rapidly
- Rapidly, suddenly

What led to the termination of the experience?

- Returned at will
- Fear or alarm
- Felt pulled in by physical body
- Felt pushed in by an outside force
- Was told I had to return
- Other (please specify)

PLEASE DESCRIBE

In what position did you perceive yourself to be when your experience was about to end?

- Horizontal over the physical body
- Vertical along the physical body
- Far away from the physical body
- Other (please specify)

Were you aware of sensations of getting into your body at the end of your experience?

- Yes (please describe)
- No

If "Yes", which part of the body did you have the sensation of entering?

- Head
- Stomach
- Chest
- Legs
- Feet
- Complete Body
- Other (please specify)

While returning to your body did you lost consciousness?

- Yes (please describe)
- No

While returning to your body, did you feel a sensation of falling?

- Yes (please describe)
- No

While returning to your body, did you feel as though you were passing through a dark tunnel, enclosure, or place?

- Yes (please describe)
- No

While returning to the body, did you feel vibrations or sensations of tingling in your body?

- Yes (please describe)
- No

While returning to your body, did you hear any sounds?

- Yes (please describe)
- No

If "Yes", were any of the sounds (CHECK ANY THAT APPLY)

- Buzzing sounds?
- Clicking or snapping sounds?
- Wind-like sounds?
- Other sounds? (Please specify)

Did you feel a shock all over your body when you returned to it?

- Yes (please describe)
- No

After returning to your body, did you feel that you could not move your physical body?

- Yes (please describe)
- No

How much did you know about out-of-body experiences before you had one yourself?

- Nothing
- A little (just heard them mentioned)
- A lot (had read articles or books about them)

Has your experience influenced or changed any of your feelings or attitudes towards (CHECK ALL THAT APPLY):

- Yourself, who you are
- Your view of human nature
- Society
- God, your religious beliefs
- Life, its meaning and purpose
- Death, its meaning and purpose
- Communication and interaction with human beings
- Material wealth and possessions
- Other (please specify)

(COMMENT ON ANYTHING RELATED TO THIS QUESTION)

I am interested in (CHECK ANY THAT APPLY)

- Participating in further research by answering other questionnaires
- Completing additional OBE questionnaires about my other OBEs

You may use additional paper to add anything else about your experience.

THANK YOU FOR YOUR HELP IN THIS RESEARCH PROJECT. PLEASE RETURN THE QUESTIONNAIRE TO:

Carlos S. Alvarado  
Department of Psychology  
University of Edinburgh  
7 George Square  
Edinburgh EH8 9JZ  
Scotland

## Appendix 5: Questionnaire of Absorption, Schizotypy, Dream and Parapsychological Experiences Used in the Study Reported on Chapter 5

The response options are omitted here. All the questions were of the "true" and "false" format.

### Questionnaire

Please circle "true" if the statement applies to you and "false" if it does not apply to you.

It is sometimes possible for me to be completely immersed in nature or in art and to feel as if my whole state of consciousness has somehow been temporarily altered.

Parts of my body occasionally seem dead or unreal.

At times I somehow feel the presence of someone who is not physically there.

Have you ever thought you heard people talking only to discover that it was in fact some nondescript noise?

I have seen a light, or lights or energy fields around parts of a person's body which, as far as I could tell, were not due to normal or "natural" causes.

Sometimes I feel as if my mind could envelope the whole world.

I have had, while awake and unaffected by illness, drugs or alcohol, a vivid impression of seeing, hearing or being touched by another being -- an impression which, as far as I could tell, was not due to any external, physical or "natural" cause.

Sometimes I experience things as if they were doubly real.

Do you ever feel that your thoughts do not belong to you?

I often take delight in small things (like the five-pointed star shape that appears when you cut an apple across the core or the colors in soap bubbles).

My thoughts often don't occur as words but as visual images.

Things that might seem meaningless to others often make sense to me.

I have had the momentary feeling that my body has become misshapen.

I can often somehow sense the presence of another person before I actually see or hear her/him.

Different colors have distinctive and special meanings for me.

Occasionally I have felt as though my body did not exist.

I like to watch cloud shapes change in the sky.

Are you easily distracted from work by daydreams?

I have sometimes felt that some part of my body no longer belonged to me.

The boundaries of my body always seem clear.

I sometimes "step outside" my usual self and experience an entirely different state of being.

I have had an experience in which I felt I was in direct contact with, or as if I was part of God, nature or my surroundings.

When I listen to music, I can get so caught up in it that I don't notice anything else.

Have you ever felt when you look in a mirror that your face seemed different?

Do you feel that you cannot get "close" to other people?

Are you often bothered by the feeling that people are watching you?

Have you ever felt that you were communicating with another person telepathically?

Sometimes I can change noise into music by the way I listen to it.

Do you feel lonely most of the time, even when you are with people?

I can be deeply moved by a sunset.

While watching a movie, a television show, or a play, I may become so involved that I forget about myself and my surroundings and experience the story as if it were real and as if I were taking part in it.

The sound of a voice can be so fascinating to me that I can just go on listening to it.

Do you feel that you have to be on your guard even with your friends?

Sometimes thoughts and images come to me without the slightest effort on my part.

Certain pieces of music remind me of pictures or moving patterns of color.

Now and then when I look in the mirror my face seems quite different than usual.



If I wish, I can imagine (or daydream) some things so vividly that they hold my attention as a good movie or story does.

If I stare at a picture and then look away from it, I can sometimes "see" an image of the picture almost as if I were still looking at it.

If I wish, I can imagine (or daydream) some things so vividly that they hold my attention as a good movie or story does.

I have had, while awake, a strong feeling, impression, or vision that a previously unexpected event had happened, was happening, or was going to happen, and learned later that I was right and the event did happen.

I have had a dream which matched in detail an event that occurred before, during, or after the dream, and about which I did not know or I did not expect at the time of the dream.

I am able to wander off into my own thoughts while doing a routine task and actually forget that I am doing the task, and then find a few minutes later that I have completed it.

Textures -- such as wool, sand, wood -- sometimes remind me of colors or music.

Do you often feel that people have it in for you?

Have you ever had the sensation of your body or a part of it changing shape?

When in a crowded room do you often have difficulty in following a conversation?

While acting in a play, I think I could really feel the emotions of the character and "become" her/him for the time being, forgetting both myself and the audience.

Do you sometimes feel that your accidents are caused by mysterious forces?

I often know what someone is going to say before he or she says it.

I can sometimes recollect certain past experiences in my life with such clarity and vividness that it is like living them again or almost so.

If I wish, I can imagine that my body is so heavy that I could not move it if I wanted to.

Sometimes when I look at things like tables and chairs, they seem strange.

I can be greatly moved by eloquent or poetic language.

I think I really know what some people mean when they talk about mystical experiences.

Some of my most vivid memories are called up by scents and smells.

I often have "physical memories"; for example, after I've been swimming I may still feel as if I'm in the water.

The crackle and flames of a wood fire stimulate my imagination.

When listening to organ music or other powerful music I sometimes feel as if I am being lifted into the air.

Sometimes I feel and experience things as I did when I was a child.

I have had dreams in which I know during the dream that I am dreaming.

I find that different odors have different colors.

Sometimes part of my body has seemed smaller than it usually is.

**Thank you for your participation in this study.  
Please return this questionnaire in the enclosed envelope to:**

**Carlos S. Alvarado  
Department of Psychology  
University of Edinburgh  
7 George Square  
Edinburgh, Scotland EH8 9JZ**

**Questionnaire Number:**

## Appendix 6: Questions Used in the Study Reported on Chapter 7

The following questions were taken from questionnaires used and developed at the Koestler Chair of Parapsychology. I am reproducing here only those questions used in the study.

### Participant Questionnaire

The following questions were taken from the Participant Questionnaire, a questionnaire used at the Koestler Chair to collect information about individuals that participate in research projects, mainly experiments. Unless otherwise specified, these questions used seven point scales. I am presenting here only the middle and the extreme points that had labels.

#### Absorption Experiences

How often do you lose awareness of your surroundings when you get involved in an activity? (please tick one box)

Never                  Half the time                  Always

How often do you lose your sense of time when you get involved in an activity? (please tick one box)

Never                  Half the time                  Always

#### Parapsychological Experiences

Have you ever had an experience which is best explained as telepathy? (please tick one box)

yes                  uncertain                  no

Have you ever had an experience which is best explained by clairvoyance? (please tick one box)

yes                  uncertain                  no

Have you ever had an experience which is best explained by precognition? (please tick one box)

yes                  uncertain                  no

Have you ever had an experience which is best explained by psychokinesis? (please tick one box)

yes                      uncertain                      no

Have you ever experienced a vision for which you could find no normal explanation?

yes                      uncertain                      no

Have you ever had an experience in which you felt as if your consciousness was separated from your physical body? (please tick one box)

yes                      uncertain                      no

### Dream Experiences

Have you ever had a dream in which you were aware that you were dreaming?

Yes    No (only two options)

If you have had a dream in which you were aware you were dreaming, how often does this occur? (please tick one box)

Rarely                      Once a week                      Almost everyday

How often do you clearly recall the content of your dreams? (please tick one box)

Rarely                      Once a week                      Almost everyday

To what degree do your dreams differ from ordinary experience? (please tick one box)

Not at all                      Very much

How often are you aware that you have dreamed without being able to recall the dream's content? (please tick one box)

Rarely                      Once a week                      Almost everyday

### Fantasy and Imagery

How often do you daydream? (Please tick one box)

Rarely                      Daily                      Hourly

Do you enjoy activities which require an involvement in fantasy? (please tick one box)

Not at all      Neutral      Very much

How easy it is for you to create a mental image of a familiar scene? (please tick one box)

Impossible      Effortless

If you can create a mental image of a familiar scene, how clearly can you see the scene?  
(please tick one box)

Not clear at all      As clear as using normal vision

How well can you receive a sense of hearing, smelling, and/or tasting some component  
of a mentally imagined scene? (please tick one box)

Not at all      Very well

#### Meditation Practices/Mental Disciplines

Have you ever practised any form of mental discipline/exercise, e.g., meditation,  
biofeedback, hypnosis, relaxation exercises?

Yes      No (only two options)

If yes, what kind: \_\_\_\_\_

If yes, did you practice consistently or sporadically?

Consistently      Sporadically (only two options)

If yes, do you still practice: (please tick one box)

Never      Weekly      Daily

Have you ever studied any physical and/or spiritual regimen such as hatha yoga, tai chi,  
aikido, etc.?

Never      Weekly      Daily

If yes, what kind: \_\_\_\_\_

If yes, do you still practice: (please tick one box)

Never      Weekly      Daily

Environment Growing Up

Were you raised in an environment where there is a tradition of paranormal ability which is still believed in to some degree (e.g., second sight in the Highlands)?

Yes      No (only two options)

## Edinburgh Autoganzfeld Experimental Questions

This was asked by one of the experimenters.

On a scale of 1 to 10, with 1 being the everyday waking state, and 10 being a very deeply altered state, how deep into an altered state does the receiver feel they got?

The following questions were rated by the experimenters.

Amount of mentation

Low                      Normal                      High

External / cognitive references: (e.g., references to noise, light, chair, experimenter, temperature, being in experiment, direct references to act of participation, trying to image target, cognitive strategies, references to sender).

0      1      2      3      4      5      6

Mundane      0      1      2      3      4      5      6      Bizarre

Lability: (e.g., relative number of changes, transformations).

0      1      2      3      4      5      6

## Appendix 7: Questions Used in the Study Report in Chapter 8

### Questionnaire of Mental Experiences

#### *Questions about you:*

##### Sex

- Male
- Female

##### Age

##### Marital Status

- Single
- Living together
- Married
- Separated
- Divorced
- Widowed

##### Ethnic Background

- White
- Black
- Hispanic
- Asian
- Native American
- Other, please specify

##### Education (please indicate the highest level of education completed to date)

- Less than 8th grade
- 8th grade
- High school
- Two-year college
- Four-year college
- Masters degree
- Doctorate
- Other, please specify

##### Occupation

##### Religion

- Protestant
- Catholic
- Jewish
- Muslim
- Hindu
- Buddhist
- Atheist

- Agnostic
- Other, please specify

**Religiosity**

- Not religious at all
- Slightly religious
- Somewhat religious
- Religious
- Very religious
- Extremely religious

**Area or course of current study**

Area:

Course:

*Questions about your experiences:*

In the questions that follow we are asking you about experiences that you may have had in your daily life. We are very interested in how often these things may have happened to you but only when you were NOT under the influence of alcohol or drugs. To answer the questions please determine what percentage of the time you have had the experience described, and circle that number. If you have NEVER had an experience, please circle zero, otherwise circle any number that you feel best expresses how often you have had the experience.

Some people sometimes find that in certain situations they are able to do things with amazing ease and spontaneity that would usually be difficult for them (for example, sports, work, social situations, etc.) Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people feel that certain pieces of music remind them of pictures or moving patterns of color. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people feel that they can sometimes change noise into music by the way they listen to it. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people are told that they sometimes do not recognize friends or family members. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100



Some people have seen a light or lights or energy fields around any part of a person's body which, as far as they could tell, were not due to normal or natural causes. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people sometimes find that they hear voices inside their heads that tell them to do things or comment on things that they are doing. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have the experience of not being sure whether things that they remember happening really did happen or whether they just dreamed them. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have had the feeling of being closely connected to, or being part of nature, and of everything that exists. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people sometimes have the experience of feeling as though they were standing next to themselves or watching themselves do something and they actually see themselves as if they were looking at another person. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have the experience of driving a car and suddenly realizing that they don't remember what has happened during all or part of the trip. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people, while awake and unaffected by illness, drugs, or alcohol, have had a vivid impression of seeing, hearing or being touched by another being -- an impression which, as far as they could tell, was not due to any external, physical or "natural" cause? Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people sometimes find that when they are alone they talk out loud to themselves. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have the experience of feeling that their body does not seem to belong to them. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people sometimes feel as if they are looking at the world through a fog so that people and objects appear far away or unclear. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people feel that their most vivid memories are called up by scents and smells. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have the experience of finding themselves in a place and having no idea how they got there. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people feel that textures -- such as wool, sand, wood -- sometimes remind them of colors or music. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have dreams they would call vivid. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people sometimes find that they are approached by people that they do not know who call them by another name or insist that they have met them before. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people sometimes find writings, drawings, or notes among their belongings that they must have done but can not remember doing. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people remember their dreams. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have the experience of being accused of lying when they do not think that they have lied. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people find that when they are watching television or a movie they become so absorbed in the story that they are unaware of other events happening around them. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people find that they become so involved in a fantasy or daydream that it feels as though it were really happening to them. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have the experience of sometimes remembering a past event so vividly that they feel as if they were reliving that event. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have the experience of finding new things among their belongings that they do not remember buying. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people find evidence that they have done things that they do not remember doing. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people find that they sometimes sit staring off into space, thinking of nothing, and are not aware of the passage of time. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people find that they have no memory for some important events in their lives (for example, a wedding or a graduation). Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have the experience of feeling that other people, objects, and the world around them are not real. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have the experience of finding themselves dressed in clothes that they don't remember putting on. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have had an experience in which they felt that they were located outside of, or away from, their physical body -- that is, that their consciousness, mind or center of awareness was at a different place than their physical body. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people find that different odors have different colors. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have dreams in which they know during the dream that they are dreaming. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have the experience of looking in a mirror and not recognizing themselves. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people sometimes find that they cannot remember whether they have done something or have just thought about doing that (for example, now knowing whether they have just mailed a letter or have just thought of mailing it). Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people feel that the crackle and flames of a wood fire stimulate their imagination. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people find that in one situation they may act so differently compared with another situation that they feel almost as if they were two different people. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people find that sometimes they are listening to someone talk and they suddenly realize that they did not hear part or all of what was said. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people feel that different colors have distinctive and special meanings for them. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have had a dream which matched in detail an event that occurred before, during, or after the dream, and about which they did not know or that they did not expect at the time of the dream. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have had, while awake, a strong feeling, impression, or vision that a previously unexpected event had happened, was happening, or was going to happen, and learned later that they were right and the event did happen. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people have the experience of being in a familiar place but finding it strange and unfamiliar. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100

Some people find that they sometimes are able to ignore pain. Circle a number to show what percentage of the time this happens to you.

0.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100