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ANABIOSIS

The Journal for Near-Death Studies

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THE INTERNATIONAL ASSOCIATION FOR NEAR-DEATH STUDIES

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Anabiosis – "A restoring to life from a death-like condition; resuscitation."

Anabiosis—The Journal for Near-Death Studies is a semi-annual periodical whose principal purpose is to publish articles concerned with near-death experiences and allied phenomena. Although the Journal will consider for publication any worthwhile manuscript from professionals or lay persons, it particularly welcomes submissions from scholars, scientists, researchers, and practitioners whose work is concerned with the study of human consciousness as it is affected by the prospect or occurrence of death. The Journal *will* publish articles dealing directly with near-death experiences as well as with such related phenomena as (1) out-of-body experiences; (2) death-bed visions; (3) experiences of dying persons, or those in contact with them, prior to the onset of death; and (4) experiences of persons following the death of another. The Journal *may* publish articles on other topics or experiences if such articles make a definite contribution to the understanding of the experience and meaning of death (for example, experiences suggestive of reincarnation).

Concerning the *types* of articles the Journal will publish, it specifically encourages submissions in the following categories: (1) research reports; (2) theoretical or conceptual statements; (3) papers expressing a particular scientific, philosophic, religious or historical *perspective* on the study of near-death experiences; (4) cross-cultural studies; (5) individual case histories with instructive unusual features; and (6) personal accounts of near-death experiences or related phenomena.

Finally, the Journal invites contributions from professionals and lay persons, whatever their background or orientation, but particularly from persons in the fields of medicine, nursing, psychology, parapsychology, sociology, philosophy, and religion. The Journal is especially interested in soliciting manuscripts (in English) from persons living outside the United States of America. The Journal as such has no commitment to any particular position on or interpretation of near-death experiences (and related phenomena) and specifically encourages an exchange of a variety of perspectives on these issues.

Manuscripts should be submitted in duplicate, typed and double-spaced on 8½ x 11 paper to: Bruce Greyson, M.D., Box 54, University Hospital, 1405 E. Ann St., Ann Arbor, MI 48109.

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Editor's Foreword

In the Editor's Foreword to the first issue of *Anabiosis* in July, 1981, Kenneth Ring expressed our hope of creating "a forum for scholarly discussion and debate concerning a wide range of issues related to near-death experiences (NDEs) and allied phenomena." It is extremely gratifying for me, as Dr. Ring's successor, to find the journal three years later still providing a meeting ground for a variety of theoretical and methodological approaches to near-death phenomena.

The current issue of *Anabiosis* begins and ends with contributions (by Mr. Rogo and by Ms. Cook) delving into paranormal aspects of the NDE from the perspective of contemporary parapsychological research. It also contains two articles (by Drs. Ring and Becker) exploring the NDE within the context of ancient mystical traditions. A totally different approach to the phenomenon, an examination of possible neurochemical underpinnings of the NDE, is presented in contributions by Dr. Siegel and Ms. Hirschman and by Mr. Rogo.

The maintenance of this eclectic orientation as *Anabiosis* enters its fourth year of publication reflects the strength of the field of near-death studies. More importantly, it reinforces our hope that we are contributing to a science that draws on many diverse disciplines and accepts many converging paths to understanding.

Bruce Greyson

The Nature of Personal Identity in the Near-Death Experience: Paul Brunton and the Ancient Tradition

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ABSTRACT

In this paper the nature of personal identity is examined from two perspectives: observations reported by selected near-death experiencers (NDErs) and the viewpoint represented by the late English writer Paul Brunton (1898-1981). NDEs suggest a continuation and enhancement of the sense of personal identity may give way in deeper experiences to an expanded and ecstatic state of union with the Light, in which one's individuality is nevertheless paradoxically preserved. Such experiences of the self are, according to Brunton, manifestations of the *Overself*, a central concept in Brunton's thought, which is next described and held to illumine many aspects of NDEs. The paper continues with an exploration of the implications of Brunton's understanding of NDEs for the issue of whether, and in what form, we may survive biological death and concludes by considering the relationship between the discoveries of contemporary near-death research and some of the teachings of the ancient mystery schools. It is argued that the writings of Paul Brunton constitute a rich source of materials for enlarging our grasp of the significance of the NDE.

> *Throughout the verbal traditions handed down by our earlier forefathers, and shining through the literature of the world, far back as the first rude manuscripts of Oriental peoples and up to the newest product of the printer's press of this year of grace, there has been a strange yet recurring allusion to another self within man. It does not matter what name was given to this mysterious self, whether it be called soul or breath, spirit or ghost. There is, indeed, no other doctrine in the world which possesses so farflung an intellectual ancestry as this.*
>
> – Paul Brunton
> *The Secret Path*
> (1935, p. 36)

A good case can be made that the most fundamental question in life is "Who am I?" At any rate, all self-inquiry must obviously begin

with an exploration of this root query into the mystery of personal existence. For that reason, several of this century's greatest spiritual adepts and teachers such as Ramana Maharshi (1972), George I. Gurdjieff (Ouspensky, 1949; Bennett, 1974), and Roberto Assagioli (1971) have made the question central to their systems of self-realization. Similarly, some of the world's most highly prized spiritual traditions – ranging from ancient Greek philosophy to contemporary Zen Buddhist practice – are grounded in the primacy of radical self-inquiry.

In this article, I would like to advance the proposition that modern research into the near-death experience (NDE) has furnished us with still another perspective that allows us to address this ultimate issue. Like mystics and sages, NDErs are persons who have come to their own understanding of this matter out of their own deep, inner experience; their conclusions are thus *empirically* based and are not the product of speculation or philosophical analysis. Not surprisingly, what emerges from their collective experience is a view that has many points of correspondence with ancient doctrines of the self.

In addition to drawing on the literature from the field of near-death studies, however, I also intend to make use of the insights of a formerly well-known author and spiritual teacher whose once popular writings have since suffered from an unjustified neglect. Paul Brunton[1] (1898 - 1981) was an English journalist and writer who traveled widely in the East and was recognized in his lifetime as a man of considerable spiritual attainment. In his writings, he, too, emphasized the necessity of self-inquiry, but more than that, Brunton in many ways anticipated nearly half a century ago most of the recent findings and conclusions of near-death research. He is, therefore, an especially *timely* writer despite the fact that his last book was published more than three decades ago. It is my hope that this paper may help to resurrect an interest in his valuable work.

Finally, after an exploration of the nature of personal identity from the standpoint of NDEs, buttressed by some of Brunton's own observations and concepts, I would like to consider the implications of my thesis for the question of whether, and in what form, we may survive biological death. In my conclusion, I will also touch on the relationship between the findings of contemporary near-death research and the teachings of some of the mystery schools of antiquity.

I

I had risen into space, disentangled my soul from its mortal skein, separated

> myself into two twin parts, left the world which I had known so long. I experienced a sense of being etheralized, of intense lightness, in this duplicate body which I now inhabited. . . . My earthly body had really imprisoned me, the real "me," but now I was free. I had been borne hither and thither upon this planet by an organism which I had long confused with my real central self.
>
> – Paul Brunton
> *A Search in Secret Egypt*
> (1936, pp. 74-75)

The first thing that will forcibly strike any student of the NDE when he or she focuses attention on the sense of personal identity *during* the NDE is how strongly most individuals retain that sense. NDErs will spontaneously exclaim – or will routinely aver when asked – that "it was me" or "I was myself" during their NDE. Typically, this persisting and undeniable impression of one's continuing personal identity at death is accompanied by feelings of surprised delight or even joy. Let me cite here just a few such illustrative examples from my own archival materials.

From a woman who nearly died of a cardiac arrest:

> Respondent: Well, it was like, like I didn't have a body! But it was *me*. Not a body, but *me*. You know what I mean? Like I used to say to my father who didn't know me very well, that he should get to know the *real* me inside, instead of looking out here . . . because that's what's important to me. It was *me* – inside.
>
> Interviewer: The real you.
>
> Respondent: The real me was up there; not this here [she points to her physical body].

From a man who was electrocuted:

> The most important thing to realize . . . was that I had never, ever lost me. I lost my body, but I didn't once lose me, because as I speak now is exactly the way I was at that moment. I was me! 'Cause I can remember looking around and saying, "Boy, what have you got yourself into *now*?" [laughs] The same laughter, my identity was still around me, so I am "me" inside of me.

Finally, from a woman who nearly died while giving birth:

> The next thing I knew, I was in – I was standing in a mist and I knew *immediately* that I had died and I was *so* happy that I had died but I was

> still alive. And I cannot tell you how I *felt*. I was, "Oh, God, I'm dead, but I'm here. I'm me!" And I started pouring out these enormous feelings of gratitude. . . . My consciousness was filled with nothing but these feelings of gratitude because I still existed and yet I knew perfectly well that I had died. . . .

But even more than this, the sense of continuing personal identity is often one in which the individual feels that he – the *real* he – is greatly enhanced or has expanded capacities. In *Life at Death* (1980), I gave many examples of this *quality* of self-perception when I described how NDErs frequently spoke of markedly increased sensory-like acuities or hyperlucidity of understanding, and I have given additional and, I believe, even more impressive instances of it in my forthcoming book, *Heading Toward Omega* (in press). Since such observations are plentiful in my work and in the general literature of near-death studies, I will not quote additional cases here.

Obviously, just as the essential self, as perceived in NDEs, is often exalted, so the *physical* self is disdained. That is especially apparent during the out-of-body phases of the NDE when the physical body is commonly referred to in a detached, third-person mode. Just to cite one such instance here for many that could be used, consider this comment by a woman who was watching a medical team perform a tracheotomy on her:

> Respondent: I can remember them working on me, but I was completely detached from it. I was very clinical. I mean, it was like, "They're hurting that girl." . . . I kinda floated to the ceiling. I can name you what doctor was there. . . . I said [to herself], "Oh, that girl is going to have a tracheotomy." It was "that girl," it was not me.
>
> Interviewer: There was no connection between you and her?
>
> Respondent: No.

Parenthetically, Brunton in describing an out-of-body experience (OBE) of his own – when he felt close to death – was even more emphatic on this point:

> I kept on looking at the recumbent relic which I had left behind. Somehow, it fascinated me. Was that discarded form the *thing* which, for so many years, I had considered as myself? I perceived then, with complete clarity, that it was nothing more than a mass of unintelligent, unconscious, fleshly matter (Brunton, 1936, p. 75) (italics added).

If we were to review the other features of the classical NDE –

e.g., the passage through the tunnel, the confrontation with the light, the life review, the encounter with deceased loved ones, and so on – we would of course find much additional evidence to support the notion that the NDEr typically maintains his sense of personal identity throughout the experience and is recognized by other beings in terms of his earthly identity and personal history. Since these facts will be familiar to most readers of this journal, I will merely note them here as relevant to my thesis.

Nevertheless, at this stage in our inquiry, we have only examined some of the *typical* aspects of one's sense of personal identity during an NDE. To develop my argument, however, we need to consider next the extent to which that sense of personal identity may *expand* in the deeper NDEs, in which it appears that the individual comes to a fuller realization of what his essential self actually *is*. That perspective will accordingly offer to the experiencer – and to us – a more complete answer to the primary question, "Who am I?"

To illustrate the depth of understanding, let me again refer to a couple of cases from my own archives.

First, here are the observations from a man who was clinically dead for several minutes as a result of a faulty operative procedure:

> It was then that I experienced – experienced what we call a near-death experience. For me there was nothing "near" about it – it was there. It was a total immersion in light, brightness, warmth, peace, security. I did not have an out-of-body experience. I did not see my body or anyone about me. I just immediately went into this beautiful bright light. It's difficult to describe, verbally it cannot be expressed. It's something which becomes you and you become it. I could say, "I was peace, I was love." I was the brightness, it was part of me. . . . You just know. You're all-knowing – and everything is a part of you – it's just so beautiful. It was eternity. It's like I was always there, and I will always be there, and that my existence on earth was just a brief instant.

My second case is actually a *continuation* of the narrative I cited earlier from the woman who nearly died in delivery. The following passage came *directly* after her expressing her feelings of gratitude for continuing to exist and seems to represent a further progression of her experience and her understanding of it:

> While I was pouring out these feelings . . . the mist started being infiltrated with enormous light and the light just got brighter and brighter and brighter and, as everybody says, it was so bright but it doesn't hurt your eyes, but it's brighter than anything you've ever experienced in your whole

> life. At that point, I had no consciousness any more of having a body. It was just pure consciousness. And this enormously bright light seemed almost to cradle me. I just seemed to exist in it and be part of it and be nurtured by it and the feeling just became more and more and more ecstatic and glorious and perfect. And everything about it was – it just didn't bear any relationship to anything! The feeling – if you took the one thousand best things that ever happened to you in your life and multiplied by a million, maybe you could get close to this feeling, I don't know. But you're just engulfed by it and you begin to know a lot of things. I remember I knew that everything, everywhere in the universe was OK, that the plan was perfect. . . . And the whole time I was in this state, it seemed infinite. It was timeless. I was just an infinite being in perfection.

Clearly, these persons have during their NDEs become aware of much more than their usual identity. They become united with and absorbed into a seemingly universal, formless perfection that engulfs them in what can only be called pure love. Their sense of being likewise appears to expand to infinity, and they come to feel that what they are experiencing is eternity itself. Yet it also seems that throughout this tremendous expansion of their being, they have not lost themselves; it's rather more as though they have discovered that there is no *limit* to their essence and that it necessarily goes far beyond that with which they were previously consciously identified.

I will need to postpone until the next section my interpretation of the significance of this kind of experience, although the general conclusion toward which it points may already be obvious. Right now, however, I want to bring this section to a close by citing one last case of an NDE, one that is unique in my files and that affords the most complete understanding of the entire question of personal identity as disclosed by the study of NDEs.

In view of the importance of the case to the argument I wish to develop, I need to give just a bit of background here. The experience quoted below comes from a thirty-year-old woman I met in Boston in February, 1983, on the occasion of a lecture I was giving on NDEs. During an intermission, we talked briefly, and, several weeks afterward, she sent me a fourteen-page typewritten account of her NDE. Her narrative disclosed that her NDE had come about early in 1979 after several months of being bedridden from an undiagnosed illness that she contracted while living in Central America. Her NDE itself took place while she was being driven to a local first-aid station twenty miles from where she and a companion were living. Because of the value of her testimony for what is to come, I need to quote at length from her account. As you will quickly note, her NDE began not with the usual feelings of ecstatic liberation from the body

but with quite the opposite – the terror of ego-death.

As she felt herself slipping closer to death, J.T. was aware of her various sensory systems shutting down: first her vision ceased, then her hearing, and, finally, her sense of touch. Yet throughout this period, J.T. wrote, she was "somehow" able to see and hear, but not in the "usual way." Concurrent with these events, however:

> A snowballing effect occurred. As all of my energy started rolling inward, I was frantic. It was living hell and I never experienced such terror in my life.
>
> It was the death of my ego. It was accompanied by an incredible and totally consuming terror. Also, great struggle and upheavals were involved in the passing away of my ego.
>
> So what is the ego? You could say it is the small i (the self of the SELF), the desire body, personal habits and patterns of the personality that comprised the J.T. of the twentieth century, a strong tendency to cling to things, a way of perceiving and dealing with the world, whatever. My ego was strong and formidable but no match for gentle death.
>
> It may seem odd to you (as it was to me) that one part of me could watch detached, surprised and interested in the total pattern of things, while another sector went screaming (and I do mean howling) and wailing away. Most of my memories of this juncture are taken up with my struggle and terror. The image I retain is the simile of a small child being dragged somewhere against his will and kicking and screaming the whole way. . . .
>
> There came a point where I realized I "was dead," irrevocably dead, but there was still someone "home." It wasn't the annihilation I had thought it would be [J.T. was an agnostic at the time and expected "total annihilation"]. Someone was watching all this and that someone was still me, and yet the me, as I was accustomed to think of me, was dead. The me (SELF) was watching it all and had witnessed the death of me (ego). It was all very confusing and yet very clear at the same time.
>
> Concurrent with this realization, I surrendered to the force and powers that be, I gave up and "said" in effect, "OK, I give up, I'll go quietly and peacefully." I was aware of something else, a larger sense of I or of another presence. . . .
>
> I felt a loving presence surrounding me and in me. The space was composed of that presence of love and peace, yet nothing was there at all. All potentiality was there and complete, but not actualized. The best words are "All That Is" was there and yet "Nothing" was there too. It was a lovely place to be; very peaceful, total harmony, everything was there and nothing was there, but I was there witnessing (or being) the "ALL" and "Nothing" of that "Place."
>
> I experienced what I call a judgment; a total review of my life. It was experienced in its essence and totality. It was surveyed in one clump, as it were. You could say the creator judged me, and be correct. I felt it was that, but even more, it was the totality of my Self; my larger SELF, my True Self, judging my little self, the ego, the habits and patterns or tendencies of J.T. within the context of the twentieth century.
>
> I was ashamed and dismayed at what I'd found. I was judged and found

> myself wanting, badly wanting. If I'd been a teacher I'd have given myself an F.
>
> My life for the first twenty-five years wasn't so bad. I was average, didn't do anything drastic, did pretty much the usual things people do and what was expected of me. But I lived entirely for the gratification of the little self, the ego. The potentiality which existed within me had not been developed in the most beneficial direction – in short, I was selfish as hell. I had used all that was at my disposal for my personal small ego-self, and not for larger mankind.
>
> It was then communicated to me that the aim in my life was to bring the Love that Jesus, Buddha, Ramana Maharshi, etc., spoke of, into actuality in my life. To strive for it, to experience it to the best of my ability. That was to be shared – the knowledge and the Love that was gathered – with the peoples of the world.
>
> I was then asked if I wanted to continue on my present course of action or to return to life on earth. I very much wanted to continue life in the world as I knew it and take up the challenge. To learn to use my potentiality for other than small self-ego related gain. . . .

Shortly after making the decision to return, J.T. found herself becoming aware again of physical energies and of receiving oxygen from a physician. She was back to what we here call reality.

From J.T.'s account, then, we can begin to see the strands of thought that weave together to form our sense of personal identity and how an NDE *may* have the potential to unravel those strands from *ourselves* and, though the separation may be wrenching indeed, thereby to disclose the luminous form of ourselves, the silent omniscient witness that Brunton has called the Overself.

II

> The Overself is the true being, the divine inhabitant of this body, the Silent Witness within the breast of man. Man lives every moment in the presence of this divine self, but the membrane of ignorance hangs over him and covers sight and sense.
>
> – Paul Brunton
> *The Secret Path*
> (1935, p. 97)

Except, of course, at death. It is when sight and sense fail – as they failed for J.T. during her NDE – that the membrane of ignorance may be pierced and the bright ray of self-knowledge is able to blaze forth to illuminate our consciousness. It is in that moment, then, that we may come to a realization of who and what we truly are. Death punctures a hole in the tight fabric of the ego, which allows

us to slip through in a moment outside of time to experience ourselves as infinite perfection. When that happens we realize in the depths of our own being the truth of Meister Eckhart's dictum that "God is at the center of man." It is direct contact with the Overself that enables us to have this consummate knowledge, and it is for that reason that the revered sages of all epochs have stressed the importance of dying to the ego *before* the death of the body supervenes.

In these days when, because of modern resuscitation techniques, millions of people are undergoing NDEs, the direct knowledge of the Overself is being vouchsafed to unprecedented numbers of individuals who come to the experience completely unprepared for and unable to grasp the enormity of the truth that is disclosed to them. As with psychedelic usage in the sixties, the scope and depth of NDE-induced revelations may be more than most people can filter through their preexisting frameworks.

This is where a writer like Brunton can prove to be of immense value for those who seek a deeper understanding of the NDE. Indeed, in this respect, Brunton appears to be something of a modern hierophant to those who have *nearly* died as a result of their involuntary initiation through the portals of clinical death. And central to Brunton's thought – and to the NDE itself – was his concept of Overself. Let us see how Brunton – a master wordsmith if ever there was one – explicated it.

In *The Secret Path* (1935), one of Brunton's most accessible books and a good, if brief, introduction to his basic ideas, he offered this general overview:

> The whole matter might perhaps be put more plainly by saying that the human race, in the course of its long history, has superimposed a second self upon the individual nature with which each man began. This second self is usually called the person and came into being through a union of spirit and matter, through a commingling of particles of consciousness drawn from the ever-conscious real self with particles of unconscious matter drawn from the body. This second and later self is the one we each of us know, the personal self, but the first and real self, which existed before thinking and desiring appeared within the beginning of man, is the one which few of us know, which is subtle and not so apparent because it makes us all partake of the nature of divinity. It lives always over our heads, an angelic thing of unimaginable grandeur and mysterious sublimity, and therefore I call it the *Overself* (Brunton, 1935, p. 42).

The Overself, then, is our higher self or soul, and, according to Brunton, it is "man's essential being, the all-important residue which is left when he succeeds in banishing the thought of his identification

with the physical body and the intellect" (Brunton, 1938, pp. 251-252). That statement helps us understand why the Overself tends to suffuse our consciousness at death as the onset of death serves to weaken our attachment to both body and intellect.

There is a paradox here, however, because although the Overself *is* our higher self, there is only *one* Overself, "one universal divine self resting in all men" (Brunton, 1938, p. 252). Brunton said that the divine Overself always is in its essence the same in all individuals, but that it has a unique relationship with each human being.

As for the qualities of the Overself, Brunton wrote that the Overself is eternal; with respect to our lives, it is also omniscient, yet in its role as "the hidden observer" of the ego, it is impartial and detached. As for our knowledge of *it*:

> We do not "see" the Overself; we apprehend it. Visions merely disclose its finest garments, its robes of dazzling light, albeit they are but robes.
>
> We do not behold its beauty; our being dissolves into its breath and we *become* that which poet, painter, sculptor, musician seek but scarcely find.
>
> The Overself is the supreme reality, but its reality is too subtle, too exquisite, too rare, for audible expression (Brunton, 1938, p. 252).

In short:

> From the human standpoint, the Overself is the deeper layer of mind where man can become conscious of God. It is the timeless spaceless immanence of the universal being in a particular center (Brunton, 1943, p. 196).

> This mystical meeting-point, the Overself, represents the utmost extent to which the finite self can consciously share in the ultimate existence. It is that fragment of God which dwells in and yet environs man, a fragment which has all the quality and grandeur of God but not all the amplitude and power of God (Brunton, 1943, p. 193).

Needless to say, Brunton spent many pages in his various books trying to help his readers gain an appreciation of the Overself, and the snatches I've culled from his writings to present here cannot possibly convey the sense of his compelling exegetic commentary on the subject. Still, I hope these bare outlines are sufficient to enable you to intuit the connection I wish to make between the essence of the NDE and Brunton's concept of the Overself. In any case, I must now return to the issue I raised at the outset of this paper: what answer does the NDE give to the question, "Who am I?"

It is here of course where Brunton's deep probings of the self will

prove to be most illuminating and where his direct knowledge of NDEs – forty years before the work of Kubler-Ross and Moody – can bridge the gaps we need to cross. It is here also that Brunton's *concepts* will be found to dovetail perfectly with J.T.'s *experience* and the conclusions of our inquiry fall into place.

In several of his books Brunton showed that he had a clear understanding – at least judged by the findings of modern near-death studies – of just what happens at death. The description of the transition into death he gave in his book *The Wisdom of the Overself* (1943, p. 152-157), for example, could easily serve as a good summary of most of the major features of the NDE. In Brunton's case, of course, his *interpretation* of the passage into death was couched in terms of an encounter with the Overself. To illustrate Brunton's approach to the NDE, let me quote just one portion of his description, specifically concerned with the life-review phase of the experience. Before proceeding to these remarks of Brunton, however, you may wish to reread the last part of J.T.'s account, where she spoke of the judgment, in order to appreciate just how astute was Brunton's grasp of the NDE.

> What happens next is that *a living being, which although he does not know it has already imperturbably observed the death of his bodily being, a hidden "I" which has always observed the surface "I," something within him yet something that he has not hitherto recognized as himself,* will now touch his consciousness. This being is none other than his own majestic Overself. Through its eyes he will gaze afresh at the total impression rather than the episodal detail of his early life. Through its revelatory eyes he becomes his own incorruptible judge. The purely selfish, personal point of view suddenly deserts him. For the first time, perhaps, he sees himself not only as others see him but also as the impersonal power of karma sees him. During this time he comes face to face with the consequences for other persons of his acts whilst on earth, consequences of which he was often quite unaware or in which he was often egotistically uninterested. He then perceives that many of his own misfortunes – so vividly depicted again in this amazing panorama – were definitely self-made and self-earned. By this diviner light of a conscience magnified one thousand-fold, he *feels* that whatever happened to him was a just result, was traceable in the end to his own character and his own deeds. A great remorse overwhelms him. He puts passion aside and sees this surface "I" as the once-hidden observer sees it, without its own self-flattery and unconscious self-deception. . . . Finally, he is made to ask himself the question, What have I done with this gift of life? (Brunton, 1943, pp. 155-156) (italics in original)

Thus, for Brunton, the sense of a divine presence, the brilliant, radiant light, the pure love, the total knowledge, and the feeling of

ultimate perfection – in short, the common features of deep NDEs – are all to be understood as emanations or expressions of the Overself, "that fragment of God," as Brunton called it, that discloses to us finally and forever just who we are. The answer to that question, of course, is not one that can be put into words – "the Overself is the supreme reality, but its reality is too subtle, too exquisite, too rare, for audible expression" (Brunton, 1938, p. 252) – it is a *state of being*. And it is a state that many NDErs know from their direct experience, though they, too, must remain mute in order to be most faithful to it.

Other qualities of NDEs – such as heightened powers of perception and cognition – are also readily understood within Brunton's framework. For example, he spoke of the "clairvoyant vision" that comes with death while the emergence of the Overself into consciousness infuses thought with a razor-sharp objectivity and clarity.

Though few NDErs could be expected to be familiar with Brunton's thought at the time of their experience, many of them, I suspect, would come back from it with at least a dim intuitive appreciation for his viewpoint. In support of that assertion, let me refer here to some recent findings of my own that will be described in *Heading Toward Omega* (in press).

In that research, I asked a small subsample of NDErs – slightly fewer than thirty in all – to complete some questionnaires for me. One of these questionnaires asked respondents to rate a series of concepts in terms of their belief/disbelief in them using a five-point scale that ranged from +2 to -2. One of the concepts to be rated was "God." *After* their experience, everyone in my sample – *without exception* – gave the maximum positive rating (+2) to describe their belief in God. Interestingly enough, only 40 percent of my sample, which was quite diverse in terms of pre-NDE religious orientation and affiliation, had felt as strongly on this matter before their NDE, but everyone else *shifted* to the maximum extent possible afterward. Behavioral scientists will know how rare it is, even with a small sample, to have absolute uniformity of response to a Likert-type questionnaire item. That uniformity, of course, bolsters my contention that NDErs, regardless of their prior religious beliefs, understand and acknowledge that their experience has opened them up to the divine light within themselves that Brunton called the Overself.

III

This is the state of death. Now I know that I am a soul, that I can exist

> apart from the body. I shall always believe that, for I have proved it. . . . I had proved survival in what I thought the most satisfactory way – by actually dying and then surviving!
>
> – Paul Brunton
> *A Search in Secret Egypt*
> (1936, p. 75)

Paul Brunton's exultant cry of his liberation from death is of course now the common testimony of countless NDErs who have made the same temporary crossing that Brunton did fifty years ago. Certainly one of the most reliable findings of near-death research is that NDErs, following their experience, tend to show a dramatic increase in their conviction that there is indeed a life after death and that they have glimpsed its beginnings. From their collective perspective, then, NDErs seem to be affirming not only that we retain our personal identity *at* death but that we carry that identity with us into the realms *beyond* death.

While that may be so, Brunton's own analysis gives us cause to wonder whether the common wisdom of NDErs is necessarily the last word on the subject. Because Brunton's understanding of the transition into death was, by modern standards, so knowledgeable, it may behoove us to consider carefully his claims for what happens to us *after* death.

Brunton's argument was predicated on a distinction he made between what we may call "egoic survival" and what Brunton labeled "spiritual immortality" (Brunton, 1938, p. 41). The distinction between these concepts is that whereas the former perpetuates the ego, the latter dissolves it. To appreciate the importance of the distinction, however, it will be necessary to consider Brunton's view on the nature of the ego itself.

For Brunton the personal ego was, at bottom, a *thought*, albeit a complex one. In no sense is it, however, anything fixed or definite. Brunton was very clear on the point and uncompromising in his discussion of what it means for the possibility of egoic survival:

> The personal "I" is but a bundle of impermanent hopes and transient fears, a little sheaf of cravings that change with the changing years. Nothing that we know among them is immortal even during this present earth-life; how then can they be immortal through all eternity? To cultivate a belief in a personal ego that will permanently survive in a state of fixation is to prolong the illusion that even now blinds our eyes to the truth . . . (Brunton, 1943, p. 190).

Brunton's characterization of the personal ego here may seem familiar, and indeed it is, for once again his remarks recall the experience of J.T. as she described the breaking down of her ego – her "desire body," as she called it – during the onset of her NDE. As that process was unfolding for her, her ego was *dissolving*. How, then, could *it* possibly survive death?

> The mere fact that a person appears abruptly in time makes him inescapably mortal. For whatever has a beginning must have an ending. This is an inexorable law of Nature. Yet, the notion of the eternal existence of the same person in a world which is itself subject to eternal change, a notion which constitutes the orthodox concept of immortality, is one of the fond delusions which man has always liked to harbor (Brunton, 1943, p. 191).

Of course, we *can* continue to cling to that bundle of thoughts that constitute the "I" and carry that transient identification tag across the threshold into death for whatever fate may await us, but, for Brunton, that is to continue to perpetuate the illusion of the ego and to settle for what he disdained as "mere survival" instead of reaching out for true deathlessness. Thus "egoic survival" in Brunton's view is actually a failure to achieve the highest prize that death affords, which is spiritual immortality.

Nevertheless, Brunton was able to see potential value in our common craving for and belief in personal survival, but only if one can penetrate to the core of that tendency:

> Even in this widespread longing for personal continuance we can detect the beginnings of what will one day grow into the nobler longing to live forever in the true immortality. For it is an unconscious perception that human existence *does* possess something within it which is unaffected by events in time and is therefore genuinely eternal, something which stands apart from all the miserable mutations of the flesh and the "I." It is indeed an unformulated intuition which, hiding among the perishable elements of personality, affirms that there is an imperishable principle which cannot be brought to an end with the end of the body. The popular error which transfers what is known, namely the characteristics of the physical body, to what it does not know, namely, the mind for which that body is but a cluster of ideas, must be corrected. When this is done the desire for the endless continuance of a body-based "I" naturally sinks to a secondary place. . . . This view of immortality as belonging to the higher individuality of Overself rather than to the lower personality will then replace the former one . . . (Brunton, 1943, p. 192).

Thus, Brunton took his stand with many of the world's great adepts, stretching back to Plato and undoubtedly beyond, in chal-

lenging us to transcend the widespread assumption that a life after death necessarily means a personal existence of some kind. If one follows his advice and thought, it is possible to see that in fact eternity – as a state of being – is actually available to us at this moment and has nothing at all to do with death. It is only that the moment of death itself is one of life's supreme opportunities to realize the truth about one's real identity. But that truth is accessible whenever, *before* physical death, we find the avenue that leads to the Overself. In this connection, we may do well to remember the famous exclamation of Richard Maurice Bucke, the author of the classic book *Cosmic Consciousness* (1901/1969), who, in describing his own experience, said:

> I became conscious in myself of eternal life. It was not a conviction that I would have eternal life, but a consciousness that I possessed eternal life then . . . (James, 1958, p. 307).

In asking us to ponder these issues, Brunton was really exhorting us to discover for ourselves the Overself now, before death comes, rather than glibly assuming that death itself will automatically reveal the truth about existence to us. After all, he cautioned, "even those who fondly believe and ardently hope for . . . personal survival . . . will *even there* have one day to wake up and start in quest of the Overself" (Brunton, 1943, p. 191).

IV

> Scientific, psychical and psychological research is changing the Western world's attitude towards matters which were once dismissed as fanciful nonsense. Such research is lifting the ideas of the ancients out of the undeserved contempt in which they have lain while younger notions sprang to lusty manhood. . . . Our best scientists and foremost thinkers are joining the ranks of those who believe there is a psychic basis to life. What they think today, the masses will think tomorrow. We have begun – and perhaps rightly – as complete skeptics; we shall end as complete believers: such is my positive prediction. We shall rescue belief in the soul from the cold air of modern doubt. The first great message of the ancient Mysteries – "There is no death," although always susceptible of personal experiential proof by a mere few, is destined to be broadcast to the whole world.
>
> – Paul Brunton
> *A Search in Secret Egypt*
> (1936, p. 191)

Brunton himself was a deep student of the ancient Mysteries, especially those of Egypt, and wrote at length about them in one of his earlier books, *A Search in Secret Egypt* (1936). Here again, however, Brunton reveals his contemporaneity, for he was able to see into the connection between these fabled secret initiation rites and what they had to tell the modern world about death. That relationship is summed up in a line from the biographer Plutarch – which Brunton quoted in at least two of his books – who said following his own initiation experience: "At the moment of death the soul experiences the same impressions as those who are initiated into the great Mysteries." Thus, according to Brunton, those candidates who successfully passed through their initiation in the temples dedicated to Osiris would be enabled to know *experientially* the truth of the great secret: "there is no death."

Through his own painstaking research, travel, and personal experience (including a memorable overnight stay inside the Great Pyramid at Giza), Brunton was able to formulate his own reconstruction of the aim of those mystery rites and of the techniques the Egyptian hierophants used with those undergoing the most advanced form of initiation:

> That august rite was nothing more or less than a process which combined hypnotic, magical and *spiritual* forces in an attempt to detach the candidate's soul from the heavy bondage of his fleshly body for a few hours, and sometimes for a few days, that he might ever after live with the memory of this epoch-making experience. . . . In this marvellous experience the finite mind of man was drawn into contact with the infinite mind of his superior divinity. He was able for a brief while to enter into silent, spellbound communion with the Father of All, and this fleeting contact of incomparable ecstasy was enough to change his entire attitude towards life. He had partaken of the holiest food that exists in life. He had discovered the ineffable ray of Deity which was his true innermost self, and of which the soul-body which survives death was merely the intangible vesture. He was, in verity and fact, born again in the highest sense. . . .
>
> Only in such a state was it possible for a man to perceive the spirit-world as it was perceived by the spirits themselves, to see visions of the gods and angels, to be taken through infinite space, to know his innermost self and, ultimately, to know the *true* God. . . . The doctrine of the immortality of the soul was more than a mere doctrine now; it was a proved fact, which had been completely demonstrated to him. . . . He no longer believed in death, he believed only in Life – eternal, self-existent, ever-conscious Life. . . .
>
> Such was the instruction received in the Mysteries, an institution so celebrated in antiquity, so disregarded in modernity (Brunton, 1936, pp. 184-189).

Brunton's reconstruction of the form and purpose of these initiations agrees in its broad outlines with those of other noted students of these mysteries (e.g., Schuré, 1971; Grosso, 1983), and Brunton also concurs with Grosso's (1983) contention that the Eleusinian mysteries of ancient Greece had a similar structure and intent. Indeed, Brunton himself argued that such mystery rites were extremely widespread in the pre-Christian world and even extended into the Western hemisphere.

The *contemporary* relevance of all this is, however, what I wish to emphasize here. The modern world is witnessing the emergence of a new mystery school where resuscitation techniques administered by physicians have replaced hypnotic procedures practiced by high priests. The initiates of course are those who have suffered clinical death, and the initiation itself is the NDE. In the far-off days of which Brunton wrote, the candidates were few and carefully chosen; these days they number in the millions and come involuntarily. Yet *what* is learned by the survivors of both the ancient and modern forms of these initiations is, if we can trust Brunton, *identical*. We are ensouled selves, facets of divinity, and our true being does not merely survive death but is immortal.

Why it is that this ancient wisdom has to be impressed so directly on so many at this time in our planet's sorrowful history is for each of us to ponder. Unfortunately since we live during a period of many initiates but few hierophants, each of us must search out the answers as best we can, finding our sources of guidance where we may. For my part, I have found Brunton's writing helpful in providing a framework for understanding the deeper significance of NDEs.

In any case, it appears that his prophecy of nearly half a century ago is indeed coming true: the world, thanks in part to modern scientific research, does seem to be growing increasingly aware that "there is no death." Paul Brunton would not be surprised by those developments, for during an earlier dark period in world affairs, he wrote:

> History moves in cycles, that which has been shall be again; gloom and chaos are once more upon us, while the innate urge of man to re-establish communication with the higher worlds troubles him anew. Wherefore it is the writer's hope that conditions may be found, circumstances may be propitious, and the right persons forthcoming to plant a *modern* version, entirely altered to suit our changed epoch, of those Mysteries once more in each of the five continents of our world (Brunton, 1936, pp. 193-194).

NOTE

1. I am very much indebted to Mineda J. McCleave for drawing my attention to the relevance of Brunton's writings for near-death research and for making a number of his formerly hard-to-obtain books available to me. Happily, Samuel Weiser is currently reissuing almost all of Brunton's books in attractive cloth-bound editions.

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Researching the Out-of-Body Experience: The State of the Art[1]

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ABSTRACT

Research conducted to date suggests that the out-of-body experience (OBE) is a common human experience, that it is not related to psychopathology, nor a quirk of mental imagery. Laboratory evidence has confirmed that the OBE is a psi-conducive state, though selected or gifted subjects seem to display paranormal faculties more readily while out of body than unselected subjects. There also seems to be some evidence that out-of-body projectors can be "detected" at distant locations by the use of animal, human, and sometimes physical detectors. There is no evidence that the OBE is a discrete neurophysiological state. Those findings taken as a whole suggest that the OBE actually represents the release of some element of the agent's mind from the body, though that theory is admittedly complicated by several uncertainties.

INTRODUCTION

Many researchers who have studied the near-death experience (NDE) have noted how the phenomenon seems similar to the classical or discrete out-of-body experience (OBE). An out-of-body experience may be defined as any experience in which the percipient finds his focus of consciousness spacially separated from his body. It would therefore seem essential for researchers, scholars, and students of the NDE to familiarize themselves with the rich body of both anecdotal and experimental literature on this fascinating phenomenon. It seems logical to conclude that any firm findings about the nature of the OBE are probably germane to the study of the NDE and vice versa. The first psychical researchers at the turn of the century merely collected first-person accounts of the OBE, many of which would today be formally classified as NDEs. More contemporary researchers have used these data to suggest and formulate theories about the nature of this extraordinary human experience.

The out-of-body experience, then, is much like any form of

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spontaneous psychic experience. Even today the study of the OBE is being pursued using spontaneous-case reports and experimental laboratory exploration. These two approaches to the study of the OBE have allowed parapsychologists to take detailed looks into the mystery posed by the phenomenon. The result is that today we know more about the OBE than at any time in parapsychology's admittedly brief history.

Because so much recent research has been focused on the OBE, it would be impossible to evaluate all the findings that have been made or to elucidate all the issues that have arisen from those investigations. Instead, I would like to present a state-of-the-art report on how our present level of research has helped to resolve five fundamental issues crucial to the study of the OBE:

(1) Is the OBE a common or rare phenomenon?
(2) Is any special sort of person particularly prone to an OBE?
(3) Is the OBE a psi-conducive state?
(4) Does something really "leave" the body during the experience?
(5) Does the OBE represent a discrete neurophysiological state?

To my mind, those are the most important questions posed by the OBE. They are questions that dig deep into the ultimate nature of the experience. If we can resolve even one of them, we will have gone far to unravel the enigma posed by these strange journeys of the mind.

IS THE OBE A COMMON OR AN INFREQUENT PHENOMENON?

This is one question that has been fairly well resolved over the last few decades, though that has not always been the case. The first psychical researchers apparently viewed the OBE as a rather rare phenomenon, and savored each and every case they could find and publish (Myers, 1903; Hill, 1918). They viewed the phenomenon as a direct peek into the nature of the soul's immortality, but they failed to explore further to determine whether these psychic excursions were everyday occurrences or not. The idea that the OBE was a rare phenomenon was reinforced when a few gifted psychics and occultists began writing autobiographical accounts of their out-of-body adventures–including colorful stories of prolonged out-of-body travels, visits to new dimensions and time and space, encounters with spirit presences, and the like (Fox, 1974; Muldoon and Carrington, 1929; Yram, n.d.) So certainly our predecessors can be forgiven for not checking to see if the OBE was commonly experienced by members of the general public, and the study of the

OBE soon fell more within the province of the occult than academic parapsychology.

A shift in perspective resulted in the 1950s due to the writings of Sylvan Muldoon, who wrote a popular autobiographical account of his OBEs from his sickbed in Wisconsin when he was still a teenager (Muldoon and Carrington, 1929). Muldoon's book was widely read, and many members of the general public began writing to him about their own OBEs. Muldoon eventually published those reports in two case books (Muldoon, 1946; Muldoon and Carrington, 1951). The publication of so many firsthand cases alerted the parapsychological community to the fact that the OBE is probably a common experience, and perhaps more of a human potential than a specific psychic talent. Muldoon's pioneering efforts to bring public attention to the OBE were extended in the 1950s and '60s by Robert Crookall, a British geologist who resigned from the H.M.S. Geological Survey and forfeited his pension in order to study the OBE. By 1972 he had amassed 746 firsthand accounts of the phenomenon, which he carefully analyzed and published in three case books (Crookall, 1961, 1964, 1972). The natural implication of Crookall's work was, and is again, that the OBE is probably a widespread form of psychic experience.

But just how common is it?

The answer to that question has been elucidated more clearly over the last fifteen years or so. Hornell Hart, a sociologist at Duke University, conducted the first poll on the subject in 1954 by asking 155 students whether they had ever had a peculiar "dream" in which they found themselves out of their bodies. Some 27 percent answered affirmatively (Hart, 1954). That survey was flawed, though, by the possible confusion among genuine OBEs, lucid dreams, or flying dreams Hart may have produced in the way he phrased his question. Yet more carefully worded surveys have partially confirmed Hart's findings. Celia Green in Great Britain undertook two similar polls among students at Southhampton and Oxford Universities and found that 19 percent and 30 percent, respectively, reported OBEs when asked (Green, 1967). Another poll among British college students was conducted at the University of Surrey by Susan Blackmore (1978), and 11 percent reported OBEs. Those statistics were confirmed by John Palmer (1979a), who conducted a survey of psychic experiences among students at the University of Virginia. Some 25 percent admitted that they had experienced at least one OBE at some point in their lives. Harvey Irwin, at the University of New England in Australia, was conducting a similar study at about the

same time. He found that 12 percent of his sample had confronted the OBE as a part of their life experiences (Irwin, 1980). A survey conducted among undergraduate psychology students at a large well-known university (left unnamed in the report) by a team of researchers in Missouri produced similar results. Twenty-three percent of 200 subjects polled reported experiencing at least one OBE during their lifetimes (Myers, Austrin, Grisso, and Nickeson, 1983).

The only problem with those surveys is that they focused primarily on college students, yet surveys taken among older populations have also indicated that the OBE is a common experience. Palmer (1979a) found that 14 percent of 354 adults randomly questioned in the Charlottesville area reported OBEs when asked about their psychic experiences, and Erlandur Haraldsson and his colleagues (1977) in Iceland found that 8 percent of 902 adults in that country had firsthand familiarity with the phenomenon.

Those two surveys tend to indicate that even though the OBE is commonly reported at all age levels, the youth of today have had more firsthand encounters with the OBE than previous generations. That conclusion certainly needs explaining. The finding may have resulted simply because college students today are more familiar with the OBE, will more readily acknowledge when they have one, are less likely to dismiss such experiences, and thus report them more commonly. It is also possible that today's young people indeed undergo the experience more often than previous generations because of their experimentation with drugs, many popular forms of self-exploration which include the induction of altered states of consciousness, the popularity of Transcendental Meditation on college campuses, and the like.

Only one survey published to date has actually addressed why subject populations show so much variability when asked about their encounters with the OBE, from a high of more than 25 percent to a low of 8 percent. Blackmore (1982b), at the University of Bristol, has suggested that this variability may result from the relative ability or inability of different subject populations to understand what they were being asked. As she rightly pointed out, very few of the survey questionnaires provided the respondents with any definitions or factual information about the OBE that might have helped them determine if they had genuinely had one or not. That led her to explore the possibility of misinterpretation among students at the University of Amsterdam. Ninety-eight students were simply asked if they had ever had an OBE, while a matching group was provided examples of OBEs and lucid dreams and was given other information.

She found no difference in her populations, with 18 percent of both reporting OBEs.

We can conclude from these surveys that between roughly 10 percent and 20 percent of the adult population will undergo OBEs sometime during the course of their lives. That is a very large number and indicates that the OBE is certainly no less common than any other commonly described psychic experience.

DOES ANY SPECIAL TYPE OF PERSON TEND TO EXPERIENCE OBEs?

As I mentioned above, it was the view of the early psychical researchers that only very special people—such as psychics, mystics and occultists—could achieve out-of-body states. We know today that this simply isn't true, but we still face a similar problem. Proceeding from the assumption that one in every ten or five people will undergo this experience, it is still up to us to find out *why* this one person is so special. Why doesn't everyone undergo the experience? Is there something special in the psychological or psychophysiological makeup that makes only some people OBE-prone? Many studies have been undertaken to resolve this issue.

The OBE and Possible Psychopathology

Many psychologists and psychiatrists have tried in the past to link the OBE with pathological states of mind. Otto Rank (1914/1971), Sigmund Freud (1963), Caro Lippman (1953), N. Lukianowicz (1958), and Jan Ehrenwald (1974) have attempted to place OBE-related phenomena within the context of depersonalization, pathological autoscopy, distortion of body image, and death anxiety. So it was thus an obvious step for more contemporary researchers to explore the possibility that those who undergo OBEs suffer a greater degree of pathology than those who do not.

A more recent study by Irwin (1980) focused on the OBEs reported by 36 Australian college students and found no firm relationship between the OBE and scales of neuroticism or extraversion, though the OBErs did seem to show a tendency toward neuroticism. A more comprehensive study conducted along similar lines was carried out by a team of researchers in Kansas (Jones, Twemlow, and Gabbard, in press), who compared the results of psychological tests made of 339 subjects who had reported OBEs to a matching group of 81 who were merely *interested* in undergoing one and had some back-

ground in metaphysical teachings. They were particularly interested in finding out whether people reporting OBEs would show more hysteroid responses, psychoticism, or maladjustment than those who did not, or than an independent control group. They found no important differences between the scores of the OBE group and either of the control groups. (The only difference they found was that a control group consisting of non-OBErs who wanted to have an OBE was more dangerseeking.) The Kansas team also analyzed the content of their first-person OBE reports and then compared their findings to the specific phenomenology of depersonalization, autoscopy, and distortion of body image. They found that the OBE differed from those pathological states both in content and in the conditions under which they tend to occur. That has led them to conclude that there are important phenomenological differences between the OBE and pathological states of mind, thus indicating that the OBE cannot be summarily dismissed as a pathological aberration (Gabbard, Twemlow, and Jones, 1982).

Probably the most comprehensive attempt to link experiencing an OBE to personality factors has been the work of Susan Myers, Harvey Austrin, Thomas Grisso, and Richard Nickeson in Missouri (1983). They tested a group of students who reported experiencing at least one OBE to a matching group of non-reporters on several scales of personality. They found that several factors related to experiencing an OBE, including breadth of interest, innovation, responsibility, risk-taking, and social responsibility. However, most of those correlations were only marginally significant. Their findings suggested to the researchers that their OBE subjects "see themselves as responsible, honest and stable, as well as curious, inquisitive, adventure-seeking, clever, intellectual, analytical and sociable, although low in conformity and value orthodoxy" (p. 142).

Only one study undertaken and published to date has inferentially linked OBEs to possible pathology. On the basis of a survey conducted among British schizophrenics, Blackmore and John Harris (1982) have discovered that OBEs are commonly reported by those suffering that mental illness. It is important to note, however, that the study was not conducted among a random population. Blackmore and Harris advertised in the press for respondents to a mental-imagery survey, so their sample may have been biased. Nor could the study determine whether schizophrenics are any *more* prone to OBEs than other members of the general public. Blackmore and Harris are currently following up on these questions but have not as yet issued any subsequent reports.

The Relationship of Death Anxiety to the OBE

In 1974, Ehrenwald, a prominent New York psychiatrist with a long-lived interest in parapsychology, promoted the theory that OBEs may be a symbolic ruse employed by selected individuals who need to deny the reality or imminence of death. That has led some researchers to generalize that people reporting OBEs may be suffering a high level of death anxiety, and use the OBE as a mechanism by which to reduce it. That idea has generated some fascinating research.

A specific attempt to explore whether the OBE is reported by people suffering high levels of death anxiety was published recently by Paula Smith and Irwin (1981) of the University of New England in Australia. They recruited 30 students and subjected them to an OBE-induction procedure (partial sensory isolation) in their laboratory. The students were grouped into two divisions on the basis of a questionnaire. The first was isolated for their concern with the issue of human immortality, while the second group was chosen because they exhibited no such concern. Smith and Irwin predicted that those subjects concerned with immortality, perhaps indicating pronounced death anxiety, would report more vivid OBEs during the induction sessions than the other subjects. That prediction was not confirmed, and the experimenters have used their finding to refute Ehrenwald's denial-of-death theory.

The study was, unfortunately, flawed, and one can certainly sympathize with Ehrenwald, who has strongly maintained that the experiment was not a crucial refutation of his views (Ehrenwald, 1981). My own view is that the whole experiment was based on a false assumption. The authors began by equating "concern with immortality" with death anxiety without any attempt to substantiate the validity of that view. There is considerable evidence that people interested in religion and death have *less* death anxiety than your average materialist. That is especially true if they have adopted metaphysical belief systems as an outgrowth of their studies. Smith and Irwin never attempted to test their subjects specifically for death anxiety, which would have been a fairly easy thing to do since scales for determining that trait have been developed in psychology. Such a scale, drawn from Louis Dickstein's death-concern scale (1972), was in fact given to those participating in the Kansas team's project. Those researchers found no difference between the death-anxiety levels of subjects who reported OBEs and the matching control group. Unfortunately, the Kansas team did not take into

account the possibility that people who undergo OBEs may have had an initially high death-anxiety level that was automatically alleviated by the OBE experience.

So the relationship between death anxiety and the OBE must remain technically unresolved for the present. No flaw-free attempt to refute it has so far been conducted, though Myers, Austrin, Grisso, and Nickeson (1983) in Missouri also failed to find any correlation between OBE powers and death anxiety.

Imagery Capabilities and the OBE

Since the OBE is perceived as the release of the mind from the body, some researchers have begun wondering if the OBE might actually represent some quirk of mental imagery. It has been suggested that a person who can imagine himself floating away from his body must have some mighty peculiar or powerful capabilities for imagery generation, especially if he or she actually perceives it as a genuine experience.

One of the most ambitious attempts to correlate the OBE with scales of mental imagery has been that of Irwin (1980). He tested several Australian college students reporting OBEs on scales judging cognitive style, imagery ability, and absorption in self-altering experiences. His results were rather peculiar in that his OBE subjects were actually less gifted with imagery ability than an average population, yet at the same time they tended to maintain high levels of absorption in the imagery they *do* create. Irwin (1981) was later able to partially replicate that finding based on data collected from his previously mentioned work on the OBE and death anxiety. He found that those subjects who scored high on a scale judging absorption in self-altering experiences were more successful at inducing OBEs in his laboratory than those who scored low. A replication of that effect has been reported by Myers, Austrin, Grisso, and Nickeson (1983) in Missouri, who also found that their OBE-subject population scored highly on a scale specifically judging absorption in self-altering experiences.

That certainly looked like a potentially exciting lead, but much published work by other researchers has failed to confirm that peculiar pattern. The Kansas team (Twemlow, Gabbard, and Jones, 1982) explored a similar issue with their 330 OBE subjects. They compared an OBE group and a matching control group on 37 items drawn from Auke Tellegen's *Differential Personality Questionnaire* (1976) to judge whether their OBE respondents were particularly

prone to imagery, fantasy, or absorption. They found no differences between the OBE group and the non-OBE subjects. The fact that people who undergo OBEs have no special imagery capabilities has also been reported by Blackmore (1982b), who tested several subjects reporting OBEs on scales of vividness of imagery and control of imagery. No differences were found between those reporting OBEs and a control group.

Another approach to the study of the OBE and tests of mental imagery has been the relationship of the OBE to spatial ability. Anne Cook and Irwin (1983), once again working from the University of New England, compared people who had reported OBEs with non-experiencers on tests of control of mental imagery and on a special test gauging the ability to manipulate three-dimensional mental images. They found no differences between the experiencers and non-experiencers on their general ability to control mental imagery, but found marginal evidence of greater spatial abilities on the part of the experiencers. That finding, however, must be viewed within the context of other similar studies. Blackmore (1983) also tested several subjects on a test of spatial abilities but with no positive results, but she did find that out-of-body experiencers could alter the perspective of a mentally constructed scene better than a matched group of non-experiencers.

To date, then, there seems to be no consistent relationship between the OBE and any known index of mental imagery. While the complicated relationships between the OBE and mental imagery have not been explored as fully as they might be, there seems to be no impressive evidence that that line of inquiry will pay off in the long run.

IS THE OBE A PSI-CONDUCIVE STATE?

The first writers and autobiographers of the OBE took it for granted that the phenomenon represented the release of the soul from the body. Muldoon (1946), Hugh Callaway (Fox, 1966), and Marcel-Louis Forhan (Yram, n.d.) all reported "veridical" OBEs in which they traveled to distant locations and correctly "saw" what was transpiring there. That, to them, was virtually proof of the independence of the soul. More contemporary researchers who have collected spontaneous-case reports have invariably found veridical OBEs in their material as well (e.g., Green, 1968; Crookall, 1961, 1964). Yet today, the issue of whether the OBE is inherently psi-conducive remains a controversial question not only within parapsychology in general, but even among those researchers who

have specialized in OBE research.

The Evidence from Spontaneous-Case Studies

The first comprehensive attempt to determine if the OBE is a psi-conducive state was made by Hart (1954), who reviewed the historical literature available to him and collected 99 cases of what he called "ESP-projection" (i.e., veridical OBEs). He proceeded to rate those cases on a sliding scale of evidentiality and found many of them to be reasonably documented, a finding that led him to conclude that the OBE is indeed a psi-conducive state.

More contemporary researchers have not been as preoccupied with the evidentiality of their case studies. Only one attempt has been made to determine whether ESP is a by-product of spontaneous OBEs. That has been the result of some fascinating research by Michael Sabom (1982), a cardiologist at the Atlanta Veterans Administration Medical Center who has been studying the out-of-body experiences of hospital patients who have almost died during cardiac arrests. He has found 6 cases in which those patients "saw" aspects of their resuscitations during their OBEs that should have been denied them had they been truly unconscious. What they reported was also often inconsistent with the unsophisticated nature of their prior medical knowledge. In that regard, Sabom found his respondents correctly describing the appearance of diseased organs within the body, complicated equipment used to revive them, and even some of the specific surgical procedures employed during their treatment. To explore the possibility that those patients might have been suffering fantasies based on their prior medical knowledge, Sabom matched the testimony of his respondents to a control group of cardiac patients who were asked merely to imagine what a cardiopulminary resuscitation would entail. He found that those OBE respondents who claimed to have "seen" their resuscitations were much more accurate than those who simply tried to imagine what the procedure would be like.

Work with Selected Subjects

Parapsychology today is predominantly an experimental science, and many hard-line researchers are distrustful of any findings about the nature of the psi process that have been derived from spontaneous-case studies. So when researchers began seriously studying the OBE in the 1960s and 1970s, they were naturally interested in determining

whether "something" was really leaving the body during the experience. The standard protocol was to see if an experimental subject could travel to a distant location while out of body and correctly see and describe a target object or display located there. Individuals who reported chronic OBEs or claimed the ability to induce them at will were usually recruited as subjects.

Work with such selected subjects was pioneered by Charles Tart in the late 1960s. His first report employed the services of a Miss Z., who was invited to his dream laboratory at the University of California at Davis after she complained of chronic nocturnal OBEs. Her experimental task was to float up above her bed, should she find herself out of body during the night, and view and memorize a five-digit number placed on a shelf above the bed. It was Tart's hope that she would be able to report her veridical observations over an intercom to an experimenter in an adjacent room. His hopes were fulfilled (Tart, 1968). During her fourth night at the laboratory, the subject correctly reported the number. It was learned later, however, that Miss Z. could have seen the number through a variety of fraudulent means, though Tart feels that this was unlikely. Tart (1968) conducted similar tests with a Mr. X, who has since been identified as Robert Monroe, a Virginia businessman and the author of a popular autobiographical account of his out-of-body travels. Those trials were conducted at the University of Virginia and followed a similar protocol, though in this case the shelf was located in an equipment room adjoining the sleep chamber. Monroe failed at the experimental task, but during one short OBE was able to "see" correctly that the laboratory technician stationed in the equipment room had left her post. She was (correctly) seen talking to a gentleman in a nearby corridor. Tart (1969) was able to recruit Monroe for a second series of trials using the same protocol at the University of California at Davis. Monroe was successful at inducing an OBE in the lab, but became disoriented and ended up in a courtyard adjacent to the experimental area. He therefore failed at the experimental task (i.e., viewing a five-digit number) but succeeded in giving an accurate description of the courtyard, even though he had apparently never previously visited it. So while Tart's two experiments with Monroe were failures in the technical sense, they did contribute some inferential evidence that the OBE is a psi-conducive state.

Laboratory research into the strange byways of the OBE came to the forefront of parapsychological interest in the early 1970s, when both the American Society for Psychical Research (A.S.P.R.) in New York and the Psychical Research Foundation (P.R.F.) in

Durham received endowments to study the phenomenon. Each project made use of selected subjects and contributed immensely to our growing discoveries about the psi-conducive qualities of the OBE.

Research at the American Society for Psychical Research revolved around Ingo Swann and Alex Tanous, who gained public prominence as a result of their participation in these experiments. The A.S.P.R. was particularly fortunate to procure the services of those psychics, since they both claim the ability to induce OBEs from the waking state. Both gentlemen participated in experiments designed to study the nature of OBE vision. The most successful of those studies was a multi-session experiment designed for Swann, who was able to report verbally what he was seeing at the same time he was making his OBE attempts. For each trial, Swann was seated in a chair in a specially selected A.S.P.R. laboratory room and was asked to send his mind to the ceiling and "look" into a box suspended there. Two colored targets were placed within the box before each session. They were usually simple but colorful layouts of such things as a bull's eye with a slice cut from it, or a large red heart with a knife case laid over it. Swann was asked not only to report what he saw during his OBEs but to draw sketches of the target layouts. His sketches were later given to an independent judge who attempted to match them with the targets. The series was extremely successful. Swann's diagrams were often strikingly accurate, and the judge had no difficulty making the blind matchings ($p = .000025$). It was also discovered that the nature of Swann's observations conformed to semi-consistent optical principles (Mitchell, 1973; Swann, 1975).

Similar perceptual tests were conducted when Tanous began his long association with the A.S.P.R. research, using two specially built optical devices. The apparatus displayed pictures that could be seen by peering through viewing holes, but the target choices were mechanized so that the pictures selected for each trial were composites composed partly of an optical illusion. Tanous was asked to project to the apparatus from a room at the other end of the A.S.P.R. building. The results of these tests were less straightforward than those of the Swann series, but Karlis Osis and his colleagues found that Tanous tended to do well at the beginning of each series of tests, then fell to chance scoring, but resumed high scoring as the series continued. It was Osis's conclusion that as the tests progressed, Tanous was actually learning how to perform best while out of body (Osis, 1975).

It should also be noted that, just as Tart found during his work with Monroe, those experiments included a few "bonuses" indicating that OBE travelers are indeed capable of making correct observations

about distant locations, "flukes" that, while impressive, could not be quantified when the results were statistically analyzed. For example, both Tanous and Swann reported on separate occasions that the lights used to illuminate the target displays had blown out (Swann, 1975; Tanous, 1976). Subsequent checks by the A.S.P.R. staff proved that those observations were correct, even though the psychics could have had no normal way of knowing about the peccadillo.

A less formal series of one-trial sessions with self-selected subjects was also conducted as part of the project. Osis set up a series of objects on a table in his office and invited potential OBErs from all over the country to "fly in" and report back to him by phone or mail what they had seen there. About one hundred subjects made the attempt, and a few of them were successful at the task (Osis, 1974a; Greenhouse, 1975).

While all that research was being conducted in New York, a similar project was underway in Durham, where the Psychical Research Foundation was likewise involved in studying the OBE. These experiments focused exclusively on a young Duke University psychology student, Keith "Blue" Harary, and included several series of tests using several different protocols. The tests were conducted roughly from 1972 through 1974 and included several target studies. I would like at this point to analyze these tests in some detail since I feel the results of the P.R.F. target studies were severely oversimplified and even misrepresented in the official paper that was eventually published on the project (Morris, Harary, Janis, Hartwell, and Roll, 1978).

Harary first showed up at the P.R.F. in 1972, having been directed there by staff members at the Institute for Parapsychology. He was just as baffled by his lifelong OBEs as anyone else would be who had never learned very much about parapsychology. He volunteered to serve as a subject and co-experimenter in what evolved into two years of experiments more to prove to himself that he wasn't crazy than for any other reason.

The first tasks conducted with Harary by the P.R.F. staff were standard target tests, which commenced in the middle of February, 1973. Harary would be stationed in one of the three P.R.F. buildings and would be asked to project to another building to view a letter printed on a poster and affixed to a door. Eight trials were completed and the results, according to the official report, were at chance level. However, flaws in the test almost insured Harary's failure from the start. Harary was pessimistic about succeeding at the task since the

letters were drawn in such an elaborate and "artsy" manner that they were hard to view under *any* condition. But that didn't keep him from astonishing his experimenters with a display of "indirect" ESP on the fourth trial. Harary had gone to the target area as usual and was surprised to see that a second person had joined the experimenter stationed there. That was a violation of the standard protocol that had been used during the prior sessions. Although he could not focus on the target very well, Harary did report what he had seen to the experimenter stationed with him at one of the other P.R.F. buildings. His observations were correct. A friend of the experimenter assigned to the target room had, unbeknownst to the primary experimenter, joined the session. The impromptu visitor, it might also be noted, had the rather vivid experience of actually "seeing" Harary's apparition at the precise moment that the young man was making his OBE attempt (Rogo, 1978b). Much of that information was omitted from the P.R.F.'s final report on the tests.[2]

The next series of studies designed for Harary used members of the P.R.F. staff as the targets. His task was to induce an OBE in one P.R.F. office, travel across a grass quadrangle to yet a third building, and report back who he saw there and where they were standing. While the combined results for the series were insignificant, he was phenomenally successful on the first trial. Harary correctly identified all three of the staff members and correctly determined where they were positioned in the building.

More successful, however, was at least one three-dimensional target study that was totally omitted from the final P.R.F. report, but which was reported independently (Rogo, 1976).[3]

That experiment was conducted on August 14, 1973. I was stationed at one of the P.R.F. buildings while Harary was taken to a laboratory at Duke University Hospital. The target layout, which I designed after Harary had left the P.R.F. complex, revolved around a large drumlike apparatus we were planning to use for some future tests. I placed a large bottle on top and sandwiched it between two Frisbees, which I left lying flat. I also placed an oboe inside the drum and laid it across its black case. Harary induced his OBE at 10:11 p.m. and at 10:14 p.m. reported his impressions to the two experimenters stationed with him. He reported seeing a round flat plate on top of the drum and subsequently identified it by name as a Frisbee. He also noted that two identical items were part of the setup. By focusing harder he was able to see that one of the target objects was standing upright between the two identical objects, and gradually he realized that it was a bottle. Toward the end of his brief out-of-

body visit he was able to determine that something was inside the drum, which he described as a "long pencil," and also saw something "black and square," which perfectly matched the appearance of the instrument case.

The obvious correspondences between Harary's report and the appearance of the target setup are so striking that no quantitative assessment is required to see just how accurate Harary's ESP vision could be while he was out of body. Nonetheless, we did attempt to quantify the results of the session. Harary was presented with a pool of nine objects, consisting of the five target items and four controls, when he returned to the P.R.F. later that night. He was asked to choose which objects had been included in the target display, and he correctly identified all five of the targets along with one erroneous guess. Since I was out of the room during the rankings, I could not have cued him (Rogo, 1978b).

We replicated the experiment a week later, but Harary failed on that occasion. That was not surprising since he had predicted he would fail because certain atmospheric conditions were present that night that he felt inhibited the quality of his OBEs.

Many commenters on the P.R.F. work have played down the significance of the target studies undertaken with Harary during his stay in Durham. While many of his results were not statistically significant, I hope that I have shown in this brief section that, although admittedly sporadic, his results were also occasionally quite stunning.

In conclusion, I think that some general statements about the psi-conducive quality of the OBE can be made in light of the research I have been discussing. It certainly seems that gifted subjects can use the OBE to make extrasensory observations of distant locations and people, but just *what* aspects of the target locations will become the focus of this process of observation seems to be unpredictable. The reason for that variability seems obvious. It may well be that we parapsychologists have been much too naive about the way we have designed OBE target studies. We have assumed that gifted subjects can project to a distant location, look anywhere they want to at will, and report back what they see with facility and clear-headedness. In reality, however, most subjects enter an altered state of consciousness before leaving the body, experience little control and often report blurred or telescoped vision during their excursions, and then must return to an alert state of mind before they can tell us what they saw. It seems to me that such subjects as Swann, Tanous, and Harary have performed better on OBE target studies than we have had any right to expect.

Work with Unselected Subjects

Work with unselected volunteers has not been pursued as extensively as has research with selected subjects. The greatest body of such work was designed by Palmer, then at the University of Virginia, in a series of experiments that tried to induce OBEs in volunteer subjects through a variety of induction methods (Palmer and Vassar, 1974; Palmer and Lieberman, 1975; Palmer and Lieberman, 1976). Subjects were instructed to induce OBEs in a specially prepared room, to visit another room where a target picture was on display, and to report back what they saw. Later they would be asked to choose or rank the picture from a target pool presented to them after their sessions were over. Subjects were further instructed to try to form an image of the target if they could not get out of the body. Palmer employed 60 subjects for his first session and used an induction technique consisting of progressive muscular relaxation and concentration on a spiral disc. More than 40 percent of the subjects reported OBEs but they psi-missed on the ESP task. Palmer replicated the experiment with 40 additional subjects and used an induction method combining relaxation and ganzfeld stimulation, but only half of those volunteers were actually instructed to leave the body. The other half were instructed merely to image the picture. Some 13 members of the OBE group reported leaving the body, while 4 members of the image group also experienced that sensation. Those subjects who reported OBEs scored more successfully on the ESP task than those who only guessed about or imaged the picture. Palmer's third experiment used a vibrating chair among other induction procedures and included 40 subjects. There was no significant scoring on the part of those who successfully left the body.

The results of Palmer's studies pose a number of puzzling questions. Why, for example, were his results so inconsistent with the high level of success veteran OBE subjects have achieved when confronted with similar tasks? Why should psi-missing have occurred during the first experimental series? If the OBE is not really psi-conducive, why was positive ESP scoring reported at all during Palmer's second experiment? Two possible resolutions to these related questions come to mind. Palmer has himself come to the conclusion that it is the *altered state from which the OBE emerges, and not the experience itself, that is psi-conducive*. He suggested (1978) that therefore we might not expect to find a straightforward relationship between ESP scoring and the OBE, but one more delicate and capricious. Another resolution is to suggest that Palmer's subjects were not

really undergoing OBEs at all, but only thought they were.

It is hard to evaluate that possibility objectively, since Palmer has published only two brief extracts from the experiential reports contributed by his subjects (Palmer, 1978). Palmer defines the OBE as *any* experience during which a person finds himself or herself out of body, so he has never been overly concerned by the possible difference between what Tart (1974) has called "discrete OBEs" and more amorphous and poorly defined sensations of being bodiless. The experiences of subjects such as Harary and Tanous tend to resemble the former, while there is some evidence that Palmer's subjects were undergoing less vivid experiences.

An experiment designed by Smith and Irwin (1981) in Australia has addressed this possible problem in the Palmer work. They, too, attempted to induce OBEs in 30 volunteer subjects through the use of relaxation and taped sounds. Subjects were instructed to leave the body, travel to an adjacent room, and try to view two objects placed on a table there. Independent raters later tried to match the subjects' reports with the targets. The judges also rated the experiential reports of the subjects against examples of more classic (i.e., discrete) OBEs on a 10-point scale of resemblance. Smith and Irwin reported positive ESP scoring on the part of those who had achieved OBEs during the experimental induction and found that induced OBEs tended to resemble more classic types.

Just what light the Smith and Irwin work sheds on Palmer's project is not clear-cut. Had the Australian subjects achieved no positive ESP scoring while simultaneously reporting very vivid OBEs, that would have supported Palmer's contention that there is no direct correlation between ESP and the OBE. But since Irwin and Smith reported positive ESP scoring *and* vivid induced OBEs, one might still maintain that the OBEs experienced by their subjects were of a different quality than those achieved by Palmer's student volunteers. That is admittedly unlikely, though.

The general failure of work with unselected subjects may be related to a point raised earlier, that the process of "seeing" and remembering what one sees while out of body is a very complex problem. Unselected subjects simply may not be as capable of controlling their OBEs as more experienced subjects seem to be, which may result in their generally poor showing on the experiments.

So is the OBE psi-conducive or not? Taking all the evidence in hand, procured from both selected and unselected subjects, as well as from spontaneous-case studies, I think the answer is yes. I must emphasize that this is my own personal opinion, and other researchers

have come to different conclusions on the basis of the same evidence. In a recent and comprehensive book on the OBE, for example, Blackmore (1982a) has written that "I think it is possible that all the claims of ESP . . . in OBEs are groundless" (p. 242). I hope that I have shown that at least that radical assessment is insupportable. The most pessimistic assessment I would make would be that there is no *specific* or *predictable* relationship between the OBE and ESP, but that there is some sort of connection between them cannot be denied.

DOES SOMETHING "LEAVE" THE BODY DURING THE OBE?

The whole rationale behind the use of the aforementioned target studies was to determine if the phenomenon actually represents the release of the mind from the body. By their very nature, however, target studies can never really resolve this crucial issue. Several parapsychologists have admitted that people undergoing the OBE can indeed accurately view a remote location, but they have still maintained that the experience is merely a hallucination, though perhaps a particularly psi-conducive one. The A.S.P.R. investigators tried to work around that issue by studying the optical principles by which OBE "vision" functions and how it departs from the way ESP might be expected to work. But they based their research on a series of arbitrary and very questionable assumptions (Rogo, 1978a). It seems rather pointless to conceptualize the OBE as the release of some element of the mind from the body unless that element can be detected either by other subjects, animals, or scientific instruments. Experiments to detect the release of the mind from the body have been explored, and the results have been provocative.

Research with Instrumental Detectors

There was quite a bit of experimentation carried out during the early years of psychical research, especially in France, on the instrumental detection of the human "double." The standard protocol was for the experimenter to mesmerize the subject, exteriorize his or her double, direct it to another room, and see if it could be photographed, produce "raps," or illuminate specially prepared screens. Many researchers claimed considerable success with those techniques, but it is very difficult to evaluate that research today (Alvarado, 1980). Nonetheless, some limited success with instrumental detection of the human phantom reported by researchers

at the A.S.P.R. suggests that those earlier studies should not simply be dismissed. Osis reported briefly in 1974 that the late Pat Price, a California psychic who could "remote view" at will, had projected himself into a special electronically shielded box where he had affected a suspended object (Osis, 1974b). Later he reported that Tanous had accomplished a similar task as a by-product of his attempts to see into one of the A.S.P.R.'s viewing boxes (Osis and McCormick, 1980). Unfortunately those results could have been due to simple psychokinesis, so they do little to resolve whether something actually leaves the body during the OBE.

Several attempts at instrumentally detecting Harary's out-of-body "self" were made as part of the P.R.F.'s two-year project as well. A number of sessions were held during which Harary projected to designated target areas where instruments intended to detect his presence were located, including devices measuring low frequency electromagnetic fields, thermistors, and photomultiplier tubes (Morris, Harary, Janis, and Roll, 1978). Harary was not successful at *consistently* affecting any of the equipment, but there were occasions when the devices emitted anomalous readings at the general times when he was projecting to them. The most intriguing results occurred when he approached a delicate thermistor on two occasions during one OBE. The thermistor exhibited a slight "dip" both times, but Harary was never able to repeat that success. During another experiment he attempted to induce an OBE in Duke University Hospital while being monitored by a polygraph. Two electrodes had been left "open" during the session, and each time Harary experienced an OBE, they recorded a reduction in noise level in his area (Rogo, 1978b).

The combined results of these attempts at instrumental detection are not strong, but they provide several leads for further exploration. At the very least they seem provocative. Perhaps future research into the mystery of the OBE should concentrate on similar experiments.

Work with Human Detectors

Trying to determine if an out-of-body visitor can make his or her presence known to an unsuspecting person has also had a long history in the annals of OBE research. Much has been done along those lines, mainly carried out at the turn of the century in France, with reported success (Alvarado, 1980). Again, though, it is hard to evaluate that material today, though some casual attempts along those lines played a role in the A.S.P.R.'s "fly-in" experiments.

Psychics were sometimes stationed in Osis's office and were asked to report the appearance of any out-of-body visitor. The most notable success came when one of the psychics saw the apparition of a man wearing corduroy pants "jack-knifing" over the target area. That description matched the experiential report of Tanous, who was attempting to visit the A.S.P.R. from his home in Maine at roughly the same time. He, too, reported jack-knifing over the target area and was wearing corduroy trousers at the time (Osis, 1974a).

The only attempt to quantify such detection experiences came during the P.R.F.'s work with Harary. The P.R.F. investigators had learned during their initial target studies that many of their staff members had an uncanny ability to "detect" when Harary was allegedly present. Those detection experiences ranged from the subjective impression that Harary was present to visual sightings of his apparition. The P.R.F. workers were amazed at how often those detections matched the precise moment that Harary was making his OBE attempts, even though those stationed in the target area were blind to the exact time Harary would be visiting them. Systematic work with human detectors was unsuccessful, however. The basic procedure was to ask several volunteers to sit quietly in one of the P.R.F. rooms and announce when they thought Harary was projecting to them. After some initially impressive "hits" and visual sightings by the detectors, scoring fell to chance levels. Some of the P.R.F. workers felt that the subjects were becoming too self-conscious and had begun making false guesses, and it was at that point that the project researchers decided to concentrate on animal detection studies.

Work with Animal Detectors

Probably the most successful and famous series of these studies was conducted with one of Harary's pet kittens. For each session, Harary would be taken to a location at least a half-mile from the P.R.F. buildings. An experimenter at the P.R.F. would place the kitten on a 30" by 80" animal-activity board (marked off into 24 squares) at a predetermined time. His job was to monitor how many squares the kitten crossed into and how many times it vocalized during a baseline period and during four subsequent short experimental periods. Each period was designated by a phone ring signaled by the experimenters stationed with Harary. Harary only induced OBEs on two of those four trials, while he merely imagined traveling to the kitten during the others, which thus served as control periods.

He reported over an intercom when he was ready to "leave" the body and when he "returned" so a precise log could be kept as to just when he was "out of body." Four complete sessions using that protocol were run, and the combined statistics indicated that the kitten radically altered its behavior when Harary visited it. It would calm down and vocalize less during the OBE periods, in contrast to its rather perky behavior during the baseline and control periods. The results were significant at the .01 level.

This summary of the P.R.F.'s "kitten" series, however, does not convey the striking contrasts the experimenters observed in the kitten's behavior. It would invariably become quite active when first placed on the board. It would meow profusely and scamper around trying to escape from it. Yet it would always calm down and assume a "sphinx" position when Harary experienced being with it. The kitten's behavior was so consistent that, despite the blind conditions imposed on the observers stationed with the cat, they had no difficulty discerning when Harary was making his OBE attempts.

The fact that such animal reactions could be quite radical was also demonstrated during an experiment in which a snake was used as a detector, and I acted as the observer. The snake was placed in an isolation chamber at the laboratory, and I was instructed to monitor its behavior through an observation window. Harary was taken to another laboratory a half-mile away by two other experimenters after we all synchronized watches. The typical four-period (experimental vs. control) protocol was used, following the general design of the kitten studies. During the beginning of the second experimental period the snake became very agitated and began biting wildly at the side of its glass terrarium. Its behavior was very abrupt and inconsistent with its prior docility. We later determined, by checking second-by-second time logs, that Harary had indeed at that time just induced his first OBE of the evening. The snake exhibited no further notable reactions for the rest of the experiment, though Harary attempted a second brief OBE to us later that night (Rogo, 1978b). An animal toxicologist later told me that the behavior I had observed was wildly atypical for any snake.

The official report issued by the P.R.F. team briefly mentions the experiment but states that a replication conducted a week later failed. That is only half true. The snake burrowed into the shavings at the bottom of its terrarium before Harary and his experimenters had arrived at Duke University to begin the experiment. It continued to sleep throughout the entire session.

The P.R.F. researchers conducted other animal detection studies

with rodents and a dog, but with little success. The only other notable series was a follow-up experiment with Harary's kitten, having then grown into a mature cat. The idea of the experiment was to see if the cat would position itself relative to Harary's own out-of-body location. For each session the cat was placed in a large drum that kept an automated record of its meanderings. Harary would then project to the cat and position himself in one of four areas relative to the drum. At first the cat indeed tended to orient itself toward Harary's position, but eventually it refused to budge at all once placed in the drum. Another follow-up experiment was conducted in which the cat was released in an empty room while its meanderings were monitored by a technician over a TV screen. The cat exhibited no significant unusual behavior, but the technician began having a series of strong "detections" and was consistently able to determine where Harary was standing in the room during his out-of-body visits. Finally the technician even saw Harary's apparition over the TV monitor. His observation matched the time of Harary's OBE attempt and the location where he had positioned himself (Morris, Harary, Janis, Hartwell, and Roll, 1978).

Very little research has been conducted following up on the leads provided by the P.R.F. detection studies. It would be fascinating to see if other selected subjects could also affect animal behavior while out of body. A widespread replication of such detection studies would help to resolve whether something actually "leaves" the body, an implication strongly suggested by the Harary work.

IS THE OBE A DISCRETE NEUROPHYSIOLOGICAL STATE?

If something really leaves the body during the OBE, it is logical to assume that some sort of neurophysiological alteration would occur concomitantly. We know that relaxed wakefulness, problem-solving attentiveness, and sleep are all characterized by fairly discrete electroencephaloghic (EEG) readings. Ever since the 1960s, parapsychologists have been attempting to isolate a similar discrete pattern accompanying the OBE.

Studies with Nocturnally Induced OBEs

The prospects at first looked hopeful when Tart (1968) reported his work with Miss Z. Her nocturnal OBEs were accompanied by alphoid waves and poorly developed sleep spindles. No rapid eye movements (REMs) were evident, thus indicating that her OBEs were

not dreams. Those readings tended to resemble Stage 1 sleep, but the alphoid activity was so peculiar that it could not be classified as waking *or* sleeping. However, Tart has not been able to confirm those findings with other gifted subjects. EEG readings taken during experiments with Monroe (Tart, 1967) indicated that that gentleman's OBEs take place during a poorly defined Stage 1 dream state. He exhibited some alphoid activity, but not with the same persistency as did Miss Z.

The only conclusion we can reach from those studies is that the two subjects were producing their OBEs within the context of different neurophysiological states. The problem we have drawing *any* conclusions from those studies is even more complicated by the fact that a later study of Monroe's OBE-related brain waves produced a somewhat different set of readings. Monroe's OBEs were monitored during some experiments conducted at the Topeka Veterans Administration Hospital (Twemlow, 1977), and researchers there concluded that his OBEs were related to the production of theta waves. They also found that his OBE-related brain waves were typified by a slowing down within the frequency of the waves. That variation was smaller for the right than for the left hemisphere.

Studies with Waking OBEs

The P.R.F. investigators examined EEG data from Harary over 13 sessions in which he produced OBEs, and focused on any notable changes between his pre-induction relaxation periods and his actual OBEs. The results indicated that his OBEs did not take place in a condition of sleep, and there were no robust indications that his OBEs differed from his pre-induction state. Both sets of readings were consistent with the view that his OBEs occurred while he was in a normal, waking, eyes-closed condition (Hartwell, Janis, and Harary, 1975). A later and more sensitive analysis of Harary's OBE-related EEG records revealed, however, that a gradual decrease of activity in his left hemisphere accompanied his OBEs. Similar readings were procured by the A.S.P.R. researchers during their work with Swann, though his readings were more robust, with decreases in activity registering in both hemispheres of his brain (Osis and Mitchell, 1977).

Brain-wave monitoring has also been implemented with unselected subjects. As part of his University of Virginia project, Palmer examined EEG tracings from several of his volunteer subjects. He found no correlations between their OBEs and any EEG index. He did

find that 3 subjects who reported particularly strong OBEs all showed more than 30 percent theta in their baseline EEGs, but that finding contributes little to the question under consideration (Palmer, 1979b).

The results of all these various EEG correlates indicate that neurophysiological changes may well accompany the OBE. But they do not indicate that any particular neurophysiological state is indicative of the OBE in general. There also seems to be some indication that the brain somehow "calms down" during the OBE, but that finding is so general that it casts little light on the neurophysiological nature of the phenomenon. What the data do indicate is that gifted subjects enter into at least self-consistent brain states when they leave the body, but that those states may be unique to the individual subjects. Probably the most puzzling issue raised by these studies is whether these neurophysiological states and changes are the cause or the result of the OBE.

CONCLUSIONS

I think we have learned a great deal about the OBE as a result of the research reviewed above. We have learned that some OBEs are certainly not dreams; that they are not pathological hallucinations; and that they are puzzling though apparently normal human experiences: anyone may experience them. We have also learned that gifted subjects can sometimes make correct observations at distant locations while traveling out of body and can sometimes be detected. Despite these findings, it also appears that the relationship of the out-of-body state to the human brain is very subtle.

Although we know a great deal about the OBE, we still don't know what it actually is. The data are not consistent enough to draw firm conclusions about the core nature of the experience. Last year I published a paper (Rogo, 1982) in which I attempted to show that the many psychological models formulated to explain the OBE are at least partially inconsistent with the evidence. The OBE cannot be explained as a dream, a fluke of mental imagery or memory, the result of ego-threat or ego-homeostasis, or a response to death anxiety. It seems much more than a psychological experience. But the idea that the mind physically releases itself from the body when an OBE takes place is also inconsistent with the data. If such were the case, the results of detection and target studies should have been, in general, much more consistent. So while it is my own view that "something" leaves the body during the OBE, I would not

speculate about what that "something" actually is. Perhaps the answer will come when we have learned more about the nature of the mind, consciousness, space, and time.

NOTES

1. This paper was originally delivered at a symposium in honor of Louisa E. Rhine, held in Durham, North Carolina, on November 13, 1983, and sponsored by the Foundation for Research on the Nature of Man.

2. I will be taking strong exception to the conclusions of the official report on the P.R.F.'s work several times in the course of this and following discussions. I feel the report was biased by the fact that it had to be cut severely before publication.

3. Some mention of that experiment was included in the first version of the report but was deleted later when the report was cut for publication.

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The Pure Land Revisited: Sino-Japanese Meditations and Near-Death Experiences of the Next World

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ABSTRACT

This article reviews the objects and techniques of Buddhist meditation used to obtain visions of the Pure Land (or "next world"), and considers the Buddhist response to criticisms of such meditative visions of the Pure Land; examines the theory and philosophy of deathbed visions as presented within Buddhism, adducing Japanese deathbed visions from the historical literature; and places these visions within the context of the Buddhist world-view to show how the Buddhists made consistent sense of their experiences. It is found that deathbed imagery is indigenous and integral to Pure Land Buddhism; that ancient Japanese Buddhist meditative and deathbed visions closely parallel modern American near-death and deathbed visions; and that the Buddhist philosophy of idealism provides a coherent model of a "next world" capable of integrating and interpreting these experiences.

INTRODUCTION

In a previous article (Becker, 1981), I discussed the theories of Pure Land Buddhism and its introduction to China, and documented the importance of near-death experiences (NDEs) to its origins and theology using numerous examples. I shall not here repeat the background nor history detailed in that article; rather, the present article is a deeper analysis of Pure Land Buddhist practices, and an extension of that research into the Japanese context. This research demonstrates that Pure Land Buddhists believed that visions of heaven that they experienced while in rigorous meditation were essentially identical in form and content to those of the deathbed; that in fact, monks could deliberately obtain a near-death experience while in trance and thus gain repeated glimpses of the world to come before they finally entered it at death. I shall note some of the better-known cases of the many monks to have done so, and I shall also note numerous histories, both in China and Japan, of non-

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meditating laymen who had similar visions on their deathbeds.

These observations need not contradict my previous study. In my previous article, I pointed out that the *origins* of each transmission of the Pure Land faith to China were traceable to people who had near-death experiences while largely unaware of the Pure Land tradition, and who embraced Pure Land Buddhism because it made such good explanatory sense of their life-changing experiences. This article, however, is to show rather that once the religion was established, it set up regular procedures for observing deathbeds and/or seeing into the next world, and even conducted critical debates as to the nature and reality of such religious near-death experiences.

Like the earliest Buddhists, Sino-Japanese Mahayana Buddhists considered themselves to be basing their philosophy on real experience, not fantasy. In that sense, they may be called empiricists—although without the mechanistic materialist presuppositions that traditionally have dominated Western empiricism. Pure Land Buddhists accepted the provisional reality of all experiences, including dreams, visions, and meditative states (Becker, 1981, pp. 157-159). In particular, their meditative experiences tended to shed doubt on the ultimacy of this realm of sense-impressions and its underlying "objective reality." The verification of the existence and the investigation of the nature of the Pure Land was considered to be within the capacities of all sincere Pure Land Buddhist practitioners. Meditative vision—a long-standing Buddhist practice for gaining true knowledge—is the first "tool" of Pure Land epistemology, and its origins stem from the scriptures themselves.

MEDITATION

Objects of Meditation

The *Meditation on Amitayus Sutra* is a veritable handbook of the procedures to be followed in order to gain a vision of the Bodhisattva Amida, famed for his role in coming to greet the dying at their deathbeds (Takakusu, 1894). The sutra begins by describing meditation on physical objects, such as the setting sun or a bowl of water. The meditator is told to fix the objects permanently in his mind, so that he can visualize them realistically even with his eyes closed. This process, which we have called meditation, is not a discursive thinking "about" these things, but an envisioning, an imaging so clear that the object of concentration actually seems to stand objective

in its own right in front of the visualizer. Then the practitioner is told to hold the apparently externalized thought-image steadfast, and to inspect the image in minute visual detail (cf. Pas, 1974, pp. 100-103).

Following the meditations on the sun, water, and physical objects, the *Meditation Sutra* tells the practitioner to visualize jewel trees, flowers, and then buildings of the Pure Land. Thereafter, he is to focus on the Buddha Amitayus and his surrounding bodhisattvas in minute and attentive detail. As he focuses on each tiny part of the image, or mark of the Buddha, it seems to expand and loom immense before him. Finally, he is told to meditate upon (realistically visualize) his own rebirth in the Pure Land:

> Imagine thyself to be born in the world of highest happiness in the western quarter, and to be seated cross-legged, on a lotus flower there. Then . . . thine eyes will be opened so as to see the Buddhas and bodhisattvas who fill the whole sky; thou wilt hear the sounds of waters and trees, the notes of birds and the voices of many Buddhas preaching the excellent Law in accordance with the twelve divisions of the scriptures. When thou hast ceased from that meditation, thou must surely remember the experience ever after. . . . The innumerable incarnate bodies of Amitayus, together with those of Avalokitesvara and Mahasthamaprapta, constantly come and appear before such devotees [who have achieved this state] (Takakusu, 1894, p. 186).

Although the *Meditation Sutra* does not detail the postures and preparations for meditation, much of that may be assumed to have been known already by practicing Buddhists, and therefore superfluous.

Practice of Pure Land Meditation

One early development in Chinese Pure Land meditation and practice was the establishment of the White Lotus Group on Mount Lu-Shan by Hui-yuan in 402 A.D. (Zurcher, 1959, pp. 219-220). Hui-yuan himself was both interested in and personally prone to having visions of the Pure Land. He encouraged both meditation and the painting of imagery conducive to visualization by his followers. He was frequently ill in his later years, but his writings about the subtle powers of the soul, "moving detached from individual/physical bodies," are very similar to descriptions of modern out-of-body experiences (Ch'en, 1964, p. 111). Visions were widely reported among his disciples as well. Liu Ch'eng-chih, who had helped to draft the charter of the White Lotus Society, saw images of the Buddha

floating in the air around him after his meditations (as we saw the *Meditation Sutra* had predicted). He also predicted the date of his own funeral and passed away sitting upright and facing west, without a trace of disease, a description that may indicate that he saw the Pure Land at his death as well (Zurcher, 1959, p. 221).

Shan-tao too had many impressive visualization experiences that inspired his art, his teaching, and his life (Pas, 1974, pp. 113-115; 1976, p. 10). He encountered the Pure Land in repeated trance experiences, which he attempted to communicate through sermon and sculpture; he was so convincing that at least one listener promptly committed suicide in the hopes of attaining the Pure Land (Chappell, in press). Among Chinese meditators, Shan-tao is the most clear in discussing the practical aspects of Pure Land meditation. To obtain such visions of the Pure Land, he said, one should ritually purify himself, limit his diet to small amounts of rice and vegetables, control his mind, repeat tens of thousands of mantras, and go without sleep for seven days! (Pas, 1976, pp. 22, 25)

In another context, he declared that confessions of one's sins should leave the practitioner crying streams of tears–an emotional catharsis–preparatory to these meditations (Pas, 1974, p. 105).

Master Fa-chao was often called "the second Shan-tao." He had a vision of his master-to-be (Cheng-yuan) while in meditation on the Pure Land and promptly sought him out (Fujiwara, 1974, pp. 134-136, 146). Fa-chao had numerous visions in his practice of constantly walking meditation and felt that he had been taught a new five-tone mantra recitation by Amida himself while in meditation (Chih-pan, 1966, pp. 69-73). It was this same Fa-chao who became the teacher of Ennin (Jap.: Jikaku), who was visiting from Japan and who in turn conveyed the practices and teachings to Mt. Hiei, the center of Japanese Tendai Buddhism.

Among the Tendai masters most famous in Japan today for their emphasis on Pure Land meditation is Genshin (945-1017). Genshin described their constantly walking meditation practice on Mt. Hiei in the following terms:

> For a single period of 90 days only circumambulate exclusively. . . . You should make this vow: "Even if my bones should wither and rot, I will not rest until I realize this *samadhi*." If you arouse the great faith, nothing can equal you; no one can rival the wisdom which you will enter into. Thus always obey your teacher. Until three months have passed, have no worldly desires even for the snap of a finger. Until three months have elapsed, do not lie down even for the snap of a finger. Until the three months have elapsed, constantly walk without stopping [except for natural functions] . . . (Andrews, 1974, p. 78).

Genshin is perhaps best known for his *Essentials of Rebirth (Ōjōyōshū)* and his paintings of hells and of the Pure Land, which gave a substantial impetus to Amida-worship in Japan. The important thing to note about Genshin's paintings in this context is that they were inspired by his vivid dreams and visions (de Visser, 1935, pp. 327, 334). Rensei related: "It was after his dreams that Genshin wrote the *Ōjōyōshū*, and Chingai his *Ketsujo Ōjōshū* [another work of Pure Land visions]" (Ishizuka, 1925, p. 493). Rensei himself predicted the hour of his own death based on his visions, and his passing was accompanied by heavenly music (Ishizuka, 1925, p. 499).

Also on Mt. Hiei, the Bishop Ryonin, who had meditated for years at the Mudo-ji (temple), changed his lifestyle and left the mountain to start the first Japanese Amidist sect, based on a vision:

> In 1117, at the age of 46, Ryonin experienced the most significant event in his life. . . . Amida appeared during his *nembutsu* meditation and directly revealed the philosophy of the *yuzu nembutsu* as the pathway to salvation. At the same time, [Ryonin] was presented with a visual mandala of Amida (Matsunaga, 1976, pp 13-14).

Ryonin thereupon went directly to the capital, converted the emperor, and had several visions of Bishamonten, one of which left him a scroll "as proof of the heavenly visit" (Matsunaga, 1976, p. 14). The scroll of course no longer exists, but the philosophically interesting point is that no one protested the impossibility of the interaction of the visionary world with the physical world in such a way, since both are seen as being in some sense illusory and equally ideational.

Gods also appeared to Ryonin's disciple Eiku while he was praying (Ishizuka, 1925, p. 203), and it was this same Eiku (along with Koen, compiler of the *Fuso Ryakki*, of which more below) who was to train the monk Genku, better known as Honen, the Buddhist saint. Honen emulated Shan-tao particularly because "Master Shan-tao embodied the virtues of *samadhi* [meditative vision]" (Bando, 1974, pp. 41-42). Honen also believed strongly in meditation. In the first two months of 1198 (A.D.) alone, he perfected the meditations on water, on the lapis lazuli land, on the jeweled lakes and towers, and on the lapis lazuli palace of the Pure Land, as described in the scriptures (*Honen Shonin den Zenshu*, 1967, pp. 863-864). So numerous and important were Honen's visions that he kept a careful record of them for eight years (1198-1206), with the notation that they were to be kept private until his death (Fujikoshi, 1971, pp. 121-127).

It is interesting that Honen's greatest opponent and detractor, Koben (Myoe) respected Honen for his meditations throughout his life. It was only after the posthumous publication of Honen's *Senchakushu*, which advocates recitation over meditation, that Koben attacked his position (Tanabe, 1983). Koben himself kept an elaborate record of his dreams for 40 years, "seemingly indicative of an inherent inclination to fall easily into *samadhi*, and also of his serious reverence for such experiences" (Tanabe, 1983). Koben was of the Kegon school and Honen of the Tendai. But Koben's protest was not against Honen's use of Pure Land imagery; on the contrary, it was that Honen's advocacy of recitation over meditation (posthumously uncovered) *strayed* from true Pure Land practice! (Bando, 1974, p. 40). Thus, even monks from non-Pure Land schools respected Pure Land meditation as a central practice and a key to verification of their scriptures.

Critiques of Pure Land Meditation

Modern medical studies have shown that practices of sensory deprivation, sleeplessness, or emotional catharsis alone are enough to produce visions. In Pure Land Buddhism, such practices were taken together with incessant mantra repetitions, and the conscious desire to project images of heavens or the Buddha of the next world. There can be little doubt, therefore, that some such visions were experienced as reported by some practitioners. The experiences themselves are hardly surprising, given the conditions undergone to generate them.

The critical point at issue, however, is that modern medics will tend to interpret such experiences as non-referential hallucinations of an unbalanced and disease-prone mind. That is based on their presupposition that the material world as perceived is the only normal and "real" standpoint. Pure Land Buddhists, however, would say that it is precisely such meditative experiences that give the lie to the modern materialists' assumptions; that visions demonstrate that there are in fact other layers or levels to reality, which is itself ultimately mind-dependent.

That the debate between such philosophical idealism and materialism is essentially unresolvable has been well illustrated in the debates between Hegel and Marx in the West. Such debates have been useful in illustrating that philosophical idealists can deal with the evidence of the physical senses just as adequately as can any materialist. In fact, outside of Buddhism, there are Vedantins and Christian

Scientists (among others) who are committed to the ultimate unreality of matter and the superceding reality of Mind. The strangeness of Pure Land Buddhist idealism alone is no count against its potential validity as a framework for interpreting experience.

However, there is yet another point to be considered: even Pure Land Buddhists who lacked meditative experiences were able to experience similar visions on their deathbeds or in NDEs. Since the content of the NDEs and the content of the monks' meditative visions were strikingly similar, the Buddhists accepted them *both* as glimpses of the same nether world, providing further substantiation for their faith. Let us look deeper, then, into the theory and nature of the near-death visions of the Buddha Amida coming to meet the dying person.

The Buddhist Theory of Deathbed Visions

Even in early Buddhism, the *focus of consciousness at the moment of death* was thought to have particular importance for the nature of rebirth (Tanabe, 1983, pp. 317-318). While the Hindus envisioned *karma* as some supernatural storehouse of seeds waiting to bear fruit, and the Jains depicted *karma* as subtly material dust clinging to the soul, the Buddhists thought only of moments, each influencing subsequent moments in and through themselves. While it seems probable that bad men would harbor bad thoughts, and good men, good thoughts at their deaths, that need not necessarily be the case. The Buddha reported that in his enlightenment experience, he had seen bad men born into good situations, and vice versa, depending in part on the nature of their thoughts at the moments of their deaths (Fujita, 1970, p. 575). When King Milinda (Menander) asked how an evil man with sins as weighty as a stone could fail to fall into hell at death, it was explained that even a stone could float if placed in a boat (Trenckner, 1962, pp. 17-27). In Pure Land Buddhism, the divine grace of Amida is analogized to this boat, which can save all men regardless of their misdeeds, if they simply trust in it. There are also Hindu precedents for the idea, which was developed more thoroughly by later Vedantins (Fujita, 1970, p. 577).

All three of the Pure Land sutras are predicated on the view that man's consciousness at death can enable his rebirth into the Pure Land, through the miraculous power and aid of Amida. The *Larger Sutra* makes this explicit in the 19th (Sanskrit, 18th) vow:

> O Bhagavat, if those beings who have directed their thoughts towards the

> highest perfect knowledge in other worlds, and who, after having heard my name, when I have approached the *Bodhi* [enlightenment] have meditated on me with serene thoughts; if at the moments of their deaths, after having approached them surrounded by an assembly of *Bhiksus*, I should not stand before them, worshipped by them, so their thoughts may not be troubled, may I not obtain the highest perfect knowledge [which is already obtained] (Muller, 1894, p. 15).

We find a text of similar import in the *Smaller Sutra* as well:

> Whatever son or daughter of a family shall hear the name of the blessed Amitayus, the *Tathagata*, and having heard it, shall keep it in mind . . . when that son or daughter of a family comes to die, then that Amitayus, the *Tathagata*, surrounded by an assembly of disciples and followed by a host of Bodhisattvas, will stand before them at the hour of death, and they will depart this life with tranquil minds. After their deaths, they will be born in the world *Sukhavati* [The Pure Land], in the Buddha country of the same Amitayus . . . (Muller, 1894, p. 99).

The *Meditation Sutra* goes into still more elaborate detail, describing how the deathbed experiences of people will differ according to the nature of their meditations and faith. Thus, the most accomplished of meditators sees Amida surrounded by countless Bodhisattvas, his land and palace, all at once, and Amitayus sends radiant light to shine upon the face of the dying believer. Those of lesser belief see flowers, thrones, and different colors of light according to their grades. The lowest grades of people to be born into the Pure Land first briefly taste the fires of hell, and then are rescued into flower-covered lakes, or they may see a sun-like disc (but not Amida) to be followed by birth into the Pure Land 49 days thereafter (from Takakusu, 1894, pp. 189-198). The important thing about these scriptural descriptions is that they tally with experiential accounts that have been preserved.

Records of Deathbed Visions in Pure Land Buddhism

We have seen that meditating monks validated their religious faith by their ascetic visualization practices, and later found that the images of Buddha spontaneously appeared before them. But even those Pure Land Buddhists who were not meditating monks were taught to expect Amida to meet them at their deathbeds, if they were at peace with the cosmos (Rhys-Davids, 1941, p. 657). Some recent commentators have tried to reinterpret Pure Land Buddhism in a more existential and less soteriological sense, but that simply

does not square with the clear meaning of the three central Pure Land scriptures. The interpretation is particularly unequivocal in the Chinese of T'an-luan (1974, p. 83).

There were occasional pre-Buddhist accounts of Chinese people who "visited heaven" on their deathbeds, or who died and were subsequently resuscitated, after which they described their experiences to astounded witnesses (de Groot, 1972, p. 7). There were pre-Pure Land Buddhist accounts of visions of heaven at the death of Master Tao-an (a devotee of Maitreya) and of others (de Visser, 1935, p. 328). But the first Pure Land master widely recognized by Japanese Pure Land scholars was T'an-luan. T'an-luan "saw a golden gate open before him" while recovering from a grave illness. That inspired him to seek more knowledge about the afterlife. He studied first Taoist and then Buddhist texts, finally accepting the Pure Land sutras given him by Bodhiruci as the truth (Ch'en, 1964, p. 344). His spiritual disciple, Tao-ch'o, also had a grave illness at age 65. He felt himself to be dying, when suddenly he had a vision of T'an-luan, who commanded him to continue teaching (Lai, in press). It is recorded that T'an-luan's voice was heard by all present, whereupon Tao-ch'o quickly recovered, gained a new set of teeth, and was revered like a god by his disciples as he continued to preach for 18 more years (Chappell, in press).

Tao-ch'o's disciple, Shan-tao, has already been discussed as an advocate of meditations on the Pure Land. Shan-tao placed no lesser importance on the visions at the moment of death, and invoked his monks who tended the deathbeds of Pure Land Buddhists as follows:

> If the [dying] patient has a vision, let him tell the attendant about it. As soon as you have heard it, record it just as you have heard. Moreover, when the sick person is not able to relate it, the attendant should ask . . . "What kind of vision do you see?" If he tells of seeing his sinful deeds [= a life review?], let those beside him reflect on the Buddha for him, and assist him in his repentances and thoroughly cancel the sinful deeds. If the sinful deeds are canceled, and he sees before him in response to his Buddha-reflection the lotus dais holy assembly, record it just as described (Andrews, 1974, p. 83).

The Japanese monk Genshin related the above recommendation with evident approval, showing that it was still in vogue 500 years later. Honen also clearly indicated that it was important to die composed in mind, while reciting the name of Amida continually, to assure the vision of and passage to the Pure Land at death (cf. Ishizuka's

[1925] chapter "Honen's Teachings to Lay and Clerical Disciples").

It was Chia-ts'ai, who lived shortly after Tao-ch'o, who compiled the first extant collection of deathbed experiences, the *Ching-t'u-lun* (Ogasawara, 1963, pp. 81-89, 107-108). Of the twenty accounts collected, half are of monks, the other half of laypersons. In at least one case, (that of "Dharma-master Chu-Hung") not only the dying person but all present were said to have seen the body of the Buddha coming from the Pure Land to welcome the dying monk (*Takakusu*, 1920, Vol. 47, 97-98). In other cases, devout laywomen and laymen described visions of heavenly hosts on their deathbeds. In yet another, a butcher first had a vision of hell, whereupon he was terrified into chanting the name of Amida; he then had a vision of Amida offering him the lotus seat, and passed peacefully away (*Takakusu*, 1920, Vol. 47, p. 99; Ogasawara, 1963, pp. 106-110).

By the 11th century A.D., such accounts numbered more than 100. Lai (in press) typified their deathbed descriptions as follows:

> The "visitation" scene is the climax; and this usually involves mysterious fragrance, light, clouds, music, or colors (the best of the senses) and on rare occasions, actual ascent to the West. . . . Visions of hells or Pure Lands are common, and no doubt Shan-tao's evangelical zeal in depicting these contrasting destinies in picture helped in inculcating an appreciation of the splendors and horrors of the two alternatives.

In Japan, the first distinctly Buddhist compilation of miracles was the *Ryoiki*. Its stories date mostly from the years 724-796, and provide specific names, dates (down to the day and hour), and locations for their occurrences, a fact favoring their historicity (cf. Nakamura, 1973, pp. 50, 122). The *Ryoiki* contains many accounts of human visits to the land of the dead, usually by someone who died and was revived a few days later. The revived persons told of their experiences in bright clouds and golden mountains (Nakamura, 1973, I, p. 5), in golden palaces (Nakamura, 1973, I, p. 30; II, p. 16), or in a hell where sinners were judged by Yama, god of the dead, from which they were sent back and revived (Nakamura, 1973, II, p. 19; III, p. 9). In the *Nihon Ōjō Gokurakuki*, not only monks but commoners saw the Pure Land or Maitreya's heaven while temporarily dead (Shigematsu, 1960). In the *Konjaku Monogatari* of the 11th century, the Bodhisattva Jizo (Sanskrit: Ksitigarbha) saved or escorted the dying people because they led moral lives or worshipped him while they were living. Carmen Blacker summarized:

> A remarkable number of tales can be found which describe a priest who

> falls sick and dies. For one reason or another his funeral is delayed and . . . he suddenly comes back to life. He has meanwhile been on a long and strange journey, he tells his astonished disciples and friends. . . . They cross a dismal river and eventually arrive at a glittering palace . . . (Davidson, 1975, p. 45).

Similar tales of deathbed revival with visions of Jizo, Maitreya, or Amida were reported in the *Fuso Ryakki*, compiled in the mid-12th century, covering events through 1094 (Ishizuka, 1925, p. 634). The *Fuso Ryakki* is important partly for its accounts found in no other sources, and partly because its compiler was the eminent monk Koen of Enryakuji, who taught and ordained Honen (Matsunaga, 1976, p. 58).

The *Uji Shui Monogatari* is variously dated from 1188 to 1215, with the latter date most strongly favored by scholars (Mills, 1970, p. 91). It includes accounts of resuscitated corpses who reported having been saved by Jizo (Mills, 1970, III, pp. 12-13), admonished to lead holier lives (Mills, 1970, VIII, p. 4), or even finding that Jizo and Yama are the same god (Mills, 1970, VI, p. 1). An increasing incidence of tales of hell over those of the Pure Land may reflect the troubled minds of that uncertain era. In Kamakura period Japan, the *Genko Shakusho* became yet another prominent source of resuscitation records (de Visser, 1914). In one case, the monk Enno died (age 57) and revived, only to find himself deaf and dumb for three years. When he regained his faculties, he spoke of the Pure Land, Maitreya's Palace, Yama's hells, and a miraculous rescue by six figures of Jizo. The catalog of Buddhist rebirth tales continues even up to the present century (Lai, in press). These examples should suffice to show that every age has documented cases of visiting heaven or hell and later returning to the world.

Interpretations of Deathbed Visions of the Pure Land

We should not assume that the scholars who recorded these deathbed visions were all credulous, uncritical, or propagandizers. Hui-yuan himself was troubled about the ontological status of such visions, and sent many questions to the Indian master Kumarajiva to clarify the proper interpretation of the visions (Zurcher, 1959, p. 227). Sixteenth century Chu-Hung, as another example, was particularly concerned with the status of the "objects" experienced in dying and meditative visionary states. He concluded that although they were mind-dependent, the fact that everyone at death seems to report essentially similar imagery demonstrates that the Pure Land is

indeed intersubjective and substantial rather than hallucinatory or illusory (Ogasawara, 1963, p. 217). In that conclusion Chu-Hung anticipated Osis and Haraldsson's arguments by four centuries! So Pure Land Buddhists would say that the Pure Land is immediately given through phenomenal experience, and in that sense, empirically verifiable. Phenomenal experience of the Pure Land is confirmed by and found consistent with scriptural, meditative, and deathbed accounts. Moreover, the concept of an immaterial Pure Land fits well into a theory of idealism that makes sense of both this and future worlds in a way that a materialistic metaphysics cannot.

That was the dominant line of Pure Land thought until 1385, when Ryoyo Shogei "wrought nothing short of a revolution" in Pure Land metaphysics by declaring that:

> The ordinary conception of the soul's being transported to Paradise and born there was merely a figure of speech. . . . The fact being that neither Amida, nor the sainted beings, nor the "nine ranks" are to be conceived as existing "over there" at all, because the Pure Land is the ultimate and absolute reality, and that is everywhere, so that we may be identified with it right here where we are now (Ishizuka, 1925, p. 57).

That interpretation, which has come to be accepted as the standard by many modern Pure Land Buddhists, was a radical departure from the origins and faith of a millenium of Pure Land practitioners. Despite its deviance from the ontological commitments of the earlier Pure Land Buddhists, even that interpretation is not like the materialistic assertions that there can be no heaven because the known physical world is all that exists. Rather, it asserts that the Pure Land is not a distant place, but a transcendent reality of which we can become conscious here and now through proper practice.

The traditional Pure Land Buddhist could epistemologically justify his knowledge of the Pure Land on several mutually supporting grounds. He could point to the phenomenologically self-validating character of direct experience, and the correspondence between descriptions given in the scriptures and the vision he had while in meditation. To the challenge that daily worldly experiences somehow show his trances to be hallucinatory, he had several replies in favor of his metaphysical idealism, viz.:

1. The idea that the common-sense world is more "real" than the visionary is no more than an unprovable assumption.
2. The idealistic account of visionary experience makes better sense than that of the materialist, for materialists are unable to explain either mental events themselves or the similarities

of the contents of different persons' visions in physico-chemical terms.

3. The idealistic account makes better sense of survival, which is necessarily of the mind and not of the corpse. If survival of any sort at all is possible, the Buddhist holds that his idealistic world-view is more consistent than either a dualism that must explain the relations between fundamentally different matter and mind, or than an ontological materialism that cannot deal with the survival of disembodied (immaterial) consciousnesses.

CONCLUSIONS

The issues I have addressed in this article have significant implications for modern scholarship in the areas of religious history, psychology of religion, and philosophy of survival. Let us consider each of these issues in turn.

(1) *Amida imagery is not borrowed from other religions.*

Western critics of Pure Land thought have often suggested that Pure Land Buddhism was a Chinese distortion of Indian Christianity (Takakusu, 1947, p. 166), or a borrowing of Zoroastrianism or Manichaeism via the silk routes (Reischauer, 1917, p. 69). The above accounts make clear, however, that it was the meditative experiences of the Chinese themselves that enabled visionaries like T'an-luan to accept the newly imported and otherwise very foreign religious texts of Indian Buddhism. Later Chinese commentaries were based, not on further misunderstandings of Christian sources but on personal religious experiences both of meditation and of witnessing deathbed visions. If parallels are found between Pure Land theology and that of Christianity, they indicate not borrowing but rather the strikingly similar, life-changing religious experience of saints and sages in two very different cultures and philosophies. We need no more say that ancient Buddhist visions were based on primitive Christian scriptures than that modern American visions are based on earlier Buddhist scriptures. In short, the reason that Pure Land Buddhism resembles Christianity is not historical contact but the similarity of religious experience in both cases.

(2) *Buddhist descriptions parallel modern medical descriptions.*

The descriptions of the Pure Land seen at death and those of

contemporary statistical and empirical surveys are fascinatingly similar (Ring, 1980; Osis and Haraldsson, 1977). Compassionate figures of golden light, "leading" the dying person to a realm of peace and joy with multicolored flowers, splendid trees, lakes, and pavilions, are reported frequently by modern Western patients as well as by the ancient Chinese and Japanese. The peace and "mood elevation" promised by the sutras is widespread among modern patients with deathbed visions, enabling them to forget or transcend their physically painful conditions. Patients resuscitated from death generally report a realm free from all personal conflict, in which communication is by thought alone. The Buddhists' dark tubular "calyx," which eventually blossoms into the land of light, is a good metaphor for the experiences of many subjects who report being drawn through a dark tube or tunnel. (Of course sensations of the tube, of floating, or of hearing a rush of wind may all be caused by malfunctions of the temporal lobe in drugged or near-death situations, and have no real bearing on the survival question; cf. West, 1962, pp. 78-81; Drab, 1981, pp. 146-147.) Magnification or enlargement of images, and shining geometric patterns or "jeweled nets" are also common to both the later Pure Land sutras and hallucinatory "drug trips" (West, 1962, pp. 156-158). The point of all this is not to reduce it to purely physiological interpretations, which are clearly inadequate to account for the range of phenomena experienced, and which may be correlates but not causes of the experience in any case. Rather, the more interesting point is the relative universality of such experiences in disparate cultures and ages, and their dramatic impact on the lives of those who encountered them. Whether they are archetypes dredged up from some collective unconscious at the moment of death, projections of the subliminal wish-fulfillments common to all men, or genuine glimpses into another realm to follow this one, it is impossible to determine at this point. But we cannot but be struck by the similarities, both of the experiences reported and of the arguments used to interpret them (e.g., by Chu-Hung in China [Ogasawara, 1963] and by Osis and Haraldsson in modern America [1977]). The juxtaposition of our modern data with those of medieval China and Japan, by their extreme coincidence, tends to reinforce the conclusion that such experiences really happened and were not simply some trumped-up hoax or cultural myth alone. Even accounts of deathbed visions and of white or purple clouds in the death chamber need not necessarily be written off as hagiography, if we can believe similar reports by Western witnesses in this century (e.g., Pole, 1917, p. 101).

(3) *Buddhist idealism provides a consistent model of a "next world."*

In both the scriptural and experiential accounts of the Pure Land, we have another significant description of what the "next world" might be like, if there is one. This in itself is enough to rule out the objections of certain logical positivists who assert that a coherent conception of what an afterlife might be like cannot even be formulated. These Buddhists describe the Pure Land as a mind-dependent world. It shares certain intersubjective features for all of its "inhabitants," has various regions suited to various types of consciousnesses, and responds in its minor events to the thoughts and wills of its "inhabitants" or experiencer/creators. That is precisely the same sort of world philosopher H. H. Price (1953) has envisioned and defended in making a case for a coherent conception of the afterlife. There is the same notion that bodies will not really exist in the way that they seem to exist in this material world, but that they will *feel* equally real and present to those who do not yet realize that both body and discrimination are their own mental projections. There is the same notion that there will be several different levels of delusion and projection—all of them feeling equally real to the projectors but intersubjective in more or fewer ways. There is the same notion that there will be no punishment *per se*, but that gratification of one's physical desires will soon become flat and valueless, while real joy will come in seeking spiritual insights into one's own nature and the nature of Truth.

In fact, since the Pure Land Buddhist formulation is more detailed than Price's, it can help him escape from philosophical difficulties that have often been pointed out in Price's theory. Price's "next world" was criticized because its will-dependent nature leads either to solipsism or destruction of identity, as when several people *will* to speak to the same person at the same time but in different places. Either each "inhabitant" creates his or her own solipsistic and imaginary world, or if the world is intersubjective, then at least the partner of conversation is split into pieces when many people envision him (project him before themselves) simultaneously. Price has made no clear response to that objection. The Pure Land Buddhists explain that *objects* are perceptible (because *projectible*) by the mere thought of them, but human *consciousnesses* are still uniquely localized in individual discrete places. Thus, one may "conjure" a meal or a bath that one may phenomenally experience by merely thinking of it in the Pure Land. But if one wishes to speak to a person, one must seek that person wherever he or she may be at that

moment (both spatially and psychologically!), awaiting disengagement from present activity so that he or she may relate to the "conjuror." Thus, in Pure Land Buddhism, the subjectivity of impressions of objects is not incompatible with a higher objectivity of individual consciousnesses and the bodies they project.

In this article, I have surveyed some of the more interesting phenomenological history of Pure Land Buddhism in China and Japan, and discussed the epistemology that is presupposed by Pure Land scriptures and practitioners. We have seen parallels between their meditations and deathbed experiences and observed that idealist philosophy can make good sense of both. We have indicated that Pure Land Buddhism is not borrowed from other religions but is a reflection of common religious experience, pointing to a reality often envisioned in the West as well: a mind-dependent life after death.

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Hashish Near-Death Experiences

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ABSTRACT

The historical literature on hashish-induced near-death experiences (NDEs) is reviewed, with particular reference to early French accounts. Most researchers endorsed the view of French psychiatrist Jacques Joseph Moreau that these experiences were hallucinations. Others, including spiritualist Louis-Alphonese Cahagnet, believed that hashish NDEs revealed an underlying reality as described in the works of Emanuel Swedenborg. Yet most accounts, resulting from high dosages, contained the elements and sequences of nondrug NDEs. Representative selections from this literature are translated here for the first time.

INTRODUCTION

Intoxication with hallucinogens has been associated with numerous subjective reports of death and dying. From the magical-religious uses of plant hallucinogens by New World Indians, through the psychedelic-assisted therapy of terminally ill cancer patients, to the recreational ecstasies of New Age users, the literature is replete with reports of hallucinations containing elements of near-death experiences (NDEs), if not afterlife voyages themselves (Harner, 1973; Kurland, Grof, Pahnke, and Goodman, 1973; Metzner, 1968). Perhaps more than any other hallucinogen, hashish has been associated with such NDEs. Early reports of hashish intoxications were so replete with these experiences that Aleister Crowley was prompted to comment in 1910 that "perhaps hashish is the drug which loosens the girders of the soul" (Regardie, 1968, p. 100). French spiritualist and psychopharmacologist Louis-Alphonese Cahagnet (1850) wrote that hashish allowed the soul to explore that spiritual world described by Emanuel Swedenborg (see Rhodes, 1982). Cahagnet collected his arguments and reports in a volume of hashish-induced NDEs (*The Sanctuary of Spiritualism*, 1850) and dedicated it to Swedenborg.

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Jules Giraud, a French hashish addict and writer, described one such experience in his 1913 *Testament d'un Haschischéen*:

> What? My turn to die? Not me! That would be too stupid! But a great blast of terror swept away my resistance and a frightful, measureless anguish possessed me. A glacial cold invaded my contracted legs and arms, and a blanket of ice crushed my chest. I drew a painful, oppressive breath, my ribs compressed into a corset like iron, and my breathing became more and more infrequent, even threatening to stop altogether [Giraud called to his medical companions for help, but they too had been stricken with an overdose of hashish]. . . . The path of the terrifying cold had finally reached my heart, which was no longer beating. From all available evidence I was going to die. . . . My implacable agony continued, but the appalling black void that had surrounded me up until then began to lighten a bit in a thundering downpour of insane, visionary images, such as happen to those about to drown. At the same time a splendid serenity before the fact of approaching death came over me bit by bit, making me forget my pain. . . . I was outside my body, spreading out in wonderful flashes of light, and I plunged my tentacles into the infinite, extending through all the past history of the Earth my mother, through all her geologic ages. . . . And among the glory of the stars, in an exploding apotheosis of suns and galaxies, I was the universal divinity. All this I saw from within. But from without it appears I was babbling, with furious gestures and hoarse, inarticulate cries. My acolytes, good hashish-fed medical men, were watching my crisis and wondering what to use for a straitjacket. In the end their presence and whispering pulled me down from my exaltation. . . . I repulsed them by incantations. . . . For I knew I was dead, for certain this time. And I finally knew Death's secret: by some means that I judged was habitual in dead people, what remained of my consciousness had become forever immobilized at the instant death seized me. But what a horrible, sinister idea—to embalm my soul within the illusion of this sepulchral chamber, behind whose windows there was nothing, I knew, nothing but the eternal void, absolute blackness, nonbeing (Kimmens, 1977, pp. 259-262).

These drug-induced experiences are generally viewed as hallucinations, and even Giraud reported that the above was a "macabre hallucination." While *elements* of NDEs have been reported for low-dose intoxications with hallucinogens like *Cannabis* (Siegel, 1980), there have been few accounts that have involved integrated sequences that more closely resemble the form, content, and qualitative aspects of the prototypical NDE (Ring, 1980). Such accounts may be associated with more toxic dosages that bring the subject closer to physical, and hence psychological, death. Giraud's experience occurred following ingestion of ten times the usual dose of hashish, prepared from the concentrated resins of the *Cannabis* plant. Using published historical recipes together with United Nations Narcotics

Commission assays of hashish used in the Middle East and France, we have calculated that the usual dose employed by nineteenth-century researchers represented 8.76-17.5 mg of delta-9-tetrahydrocannabinol (THC, the active principle in *Cannabis*), but some groups, like the hashish club described below, used Giraud's dosage (87.6-175.2 mg of THC). These dosages differ substantially from contemporary social-recreational marijuana intoxications resulting from the smoking of a mixture of *Cannabis* leaves and stems delivering an average of 10 mg of THC. Consequently, the experiences are also different, as reported in early explorations of French and American researchers. This literature, having remained largely untranslated and forgotten, is reviewed here.

EARLY HISTORICAL DESCRIPTIONS

Originally an Old World plant that originated in the desert region in Central Asia, *Cannabis* was probably unknown in the Western hemisphere before the sixteenth century. Archeological specimens have been found in both Asia and Eastern Europe, indicating its use by man dates back more than 6,000 years. Coarse hemp fabrics excavated from some of the oldest sites of human habitation in Europe show that most, if not all, early uses were for fiber.

The ancient Chinese Emperor Shen-Nung (2737 B.C.) is credited with encouraging the first medicinal uses of *Cannabis*. From China the use of *Cannabis* spread to India, where its mind-altering properties were exploited (via drinking and smoking) in religious rituals. Among Muslim Indians, *Cannabis* was referred to as "joy-giver," "sky-flyer," "heavenly guide," "soother of grief," and "poor man's heaven." From India, use spread to the Middle East where the custom of eating hashish flourished.

Early Arabic manuscripts from the tenth to sixteenth centuries describe experiences wherein the hashish user died and was transported to another world (Rosenthal, 1971). While an overdose of potent hashish could result in real bodily death because of lowered blood pressure and body temperature (see Nahas, 1973; Walton, 1938), most "deaths" were psychological:

> By dissolving the moist elements in the body and thereby causing vapors [narcotic effects] to ascend to the brain, the hashish produces pernicious fancies, and by weakening the mind, it opens up the gate of fantasy (Rosenthal, 1971, p. 92).

An Arabic manuscript authored by al-Badrī (1464) notes that hashish users often see and hear a voice telling them that death approaches and the "secret" of the drug is that it permits "the spirit to ascend to the highest points in a heavenly ascension of disembodied understanding" (Rosenthal, 1971, p. 93). This ability of hashish to temporarily kill the physical body and liberate the spiritual was considered so potent that the murderous hashish eater was considered a suitable metaphor for the dangerous power of the drug. Accordingly, the poems and manuscripts of the period indicate that hashish makes every man a *hashishi* (assassin) unbeknown to himself. The contemporary myth of hashish-fortified assassins roaming throughout the Arabian nights represents little more than errors of translation and entymological misunderstanding. The assassin, a corruption of the word *hashishi*, was simply the hashish user who fell into a state of delirium wherein an ecstasy resembling an NDE could be experienced.

EARLY FRENCH EXPERIENCES

Hashish was introduced to Egypt in the thirteenth century and was widespread when Napoleon conquered that country in 1800. French physicians and psychiatrists followed Napoleon and returned to France with news of a hashish extract so potent that a user, as novelist Theophile Gautier wrote, could "taste the joys of Mohammed's heaven" (Ebin, 1961). Psychiatrist Jacques Joseph Moreau introduced hashish to his patients, colleagues, and friends. Among them was Gautier, who founded Le Club des Haschischins in 1841 and later described his experiences:

> The slightly convulsive gaiety of the beginning was succeeded by an undefinable sense of well-being, a calm without end. I was in the blessed phase of hashish. . . . No longer could I feel my body; the bonds between mind and matter were slender, I moved by simple desire into an environment which offered no resistance. . . . I dissolved into nothingness; I was freed from my ego, that odious and everpresent witness; for the first time I conceived the existence of elemental spirits—angels and souls separate from bodies (Ebin, 1961, pp. 11-12).

Moreau (1845) labeled these experiences hallucinations and went on to describe eight major elements of the hashish experience: general feelings of pleasure; increased excitement combined with a heightening of all senses; distortion of space and time; a keener sense of hearing combined with a greater susceptibility to music and the

phenomenon that ordinary noise can be enjoyed as though it sounded sweet; persistent ideas; emotional disturbances; irresistible impulses; and illusions and hallucinations. Conspicuous among the hallucinations were experiences of dying and death. Gerard de Nerval, best friend of Gautier and member of Le Club, wrote in 1850 that "my soul was projected into past and future," whereby

> Hashish, in clouding the eyes of the body, enlightens those of the soul; the mind, once separated from the body, its weighty keeper, flies away like a prisoner whose jailer has fallen asleep with the key in the cell. It wanders happy and free in space and light, talking familiarly with the genii it meets, who astound with their sudden and delightful disclosures. It crosses in one easy bound through regions of indescribable happiness, all in the space of one minute that seems eternal (Kimmens, 1977, p. 108).

Contrary to Moreau's (1845) diagnosis of hallucination, de Nerval argued that these experiences were neither dreams nor hallucinations because "the hashish only brought forward a memory that had fled deep into my soul" (Kimmens, 1977, p. 109). Fellow Le Club member Charles Baudelaire (1851, 1860) also argued that the hashish experience, by its very involuntary nature, was reflecting, albeit with color and exaggeration, the very nature of a man's soul, and he likened the experience to Swedenborg's revelations of the spiritual state.

Other French writers contributed to descriptions of hashish experiences or else portrayed them in their own work. Physician Francois Lallemand was one of the first people in France to take hashish, and he submitted a thesis on the subject for the Doctor of Medicine degree in 1839. His book, *Le Hachych*, appeared in 1843, just as Le Club was being organized. A later edition appeared in 1848 with the cumbersome title *The 1848 Political and Social Revolution Predicted in 1843*, at which point Lallemand was a member of the Academy of Sciences and honorary professor at the University of Montpellier. Hashish provided Lallemand with a utopian vision of the future that was uncannily accurate in many detailed facts. For example, in one hashish experience he wrote:

> [I] arrived in America by way of California. I crossed the Rocky Mountains on a railway, then over the Great Lakes. I was present at the recognition of two new states, those of Wisconsin and Jowa [*sic*], which ceased being simple territories in order to become stars of the Union. I was one of the first to pass through the Panama Canal. Finally, after visiting the Cape of Good Hope, Timbuctu, and the Mountains of the Moon, I journeyed down the White Nile and saw the cataracts (Kimmens, 1977, p. 122).

The above passage was written during a hashish experience in 1843. The railroad did not cross the Rockies until 1869; Iowa joined the Union in 1846, Wisconsin in 1848; and the Panama Canal, not even begun until 1881, was finished in 1914. The Mountains of the Moon were not explored until the next century. These apparent "precognitive" and/or "prophetic" visions have been reported for other NDEs (Ring, 1982).

Other writers incorporated hashish experiences into works of fiction. For example, in Paris Alexander Dumas Père, while not a member of Le Club, wrote *Le Comte de Monte-Cristo* (1844), wherein he described how one of his characters reacted to hashish:

> His body seemed to acquire an immaterial lightness; his mind brightened in a remarkable manner; his senses seemed to double their powers. . . . An enchanting and mysterious harmony rose to God . . . as if some nymph . . . wanted to attract a soul there, or to build there a city. . . . Then amidst these immodest shades there glided, like a pure ray, like a Christian angel descending on Olympus, a chaste figure, a calm shadow, a soft vision, which seemed to veil its virgin brow against these marble impurities. . . . (Kimmens, 1977, pp. 137-138).

CAHAGNET'S HASHISH ECSTASIES

Independent of Moreau and Le Club activities, another group of French subjects, many of them followers of Swedenborg's philosophy, conducted experiments with hashish. They were led by Cahagnet. Cahagnet was born at Caen in 1805 and died at Argenteuil in 1885. He practiced a number of occupations including watchmaking and photography but was eventually attracted to spiritualism and the teachings of Swedenborg. Cahagnet authored 21 major occult and spiritual works, including the third major book (1850) ever written on hashish.

In an effort to explore the inner spiritual world, Cahagnet employed a variety of techniques including magnetism, electric shocks, burning incense, hemp seed, coriander, belladonna, anise, shellac, gum arabic, and even opium. But these methods failed to evoke the desired experience: "All I harvested was violent headaches. I don't know how I was able to withstand all these experiments" (Cahagnet, 1850, p. 101). Wandering about Paris, Cahagnet found a pharmacy selling hashish, purchased some, and began self-experimentation leading to numerous visions.

But Cahagnet denied that these visions were hallucinations. Rather, he argued that the hashish state revealed the spiritual state

that one enters when one leaves the material state: the soul, liberated by hashish ("the medicine of the soul"), has the ability to observe and record universal truths. Just as Moreau (1845) argued that hashish allowed one to observe mental illness by provoking it artificially, Cahagnet interpreted that state ("the spiritual state as revealed by Swedenborg") as mental well-being and truth. And just as Moreau encouraged his students, colleagues, and fellow Le Club members to experiment with the drug, Cahagnet gave measured dosages to a number of colleagues and subjects. Furthermore, he had them record in minute detail a running commentary on their experiences, which he termed "ecstasies." He also debriefed them with a series of structured questions and gave them copies of Swedenborg's works to compare with their own experiences.

One of Cahagnet's subjects was identified as Mr. Lecocq, a marine clockmaker. His ecstasy is representative of the 14 others reported:

> I took three grams of hashish, and I soon recognized the effects of this limitless gaiety which results in dilating all the muscles, all the molecules of the body, and appear to leave the soul thus more detached from its envelope. I threw myself on a bed with perfect calm, having confidence in prayer, I addressed one to God and begged him to enlighten me, if he saw fit. At once I saw myself gradually raised up passing by different luminous colors. . . . What pure light! What a feeling! That happiness! That rapture! . . . Following I saw, in a distance that seemed limitless to me, a luminous circle the same in color and light as that previously observed, and from the center of this creative hearth escaped bundles composed of luminous points of all colors. . . . Upon seeing this continual creation of luminous points which ended up spreading into a grandiose space, it seemed to me that I became smaller at the same time I was raising myself to admire what I saw. . . . I noticed that I was not actually in my body. . . . I entered one of those beautiful ecstasies where the soul seems to leave the earth, ascend to the celestial regions, and finds itself thus enveloped in a light that penetrates to the point of producing the most agreeable and profound feeling that could exist. Oh! I admit I was in a rapture impossible to describe. How grandiose in scope creation appeared! Oh! Yes, I was overcome before this infinite grandeur of God, not painfully overcome, but rather by a feeling of joy and admiration. . . . Those are the principal scenes which I saw in this hashish seance, which confirmed my first experience, leaving me with the conviction that all these images are not the fruit of hallucination, if by this word one understands illusion, or misunderstanding. Not knowing yourself what will appear to you, how can you say you create what you see, if that were so, the wonder could not take place, all the sensations of the soul would be entirely worthless, and you would be able to alter them, which does not happen (Cahagnet, 1850, pp. 196-200).

Selections from the remaining hashish ecstasies containing elements

similar to those found in NDEs are provided below. They are grouped according to the major categories discussed by Ring (1980) and Moody (1975):

Peace and the Sense of Well-Being

"Calm followed" (p. 134).

"What happiness! . . . What ecstasy!" (p. 139).

"I am happier than a king" (p. 179).

"I only know that I was perfectly happy" (p. 194).

Body Separation

"Detached from my material body as I felt I was" (p. 106).

"I saw myself dying; my body was lying on a bed, and my soul was escaping from all parts of it like a thick, black smoke; but instead of dissipating in the atmosphere, this smoke condensed two feet above my body and formed a body exactly like the one it had just left. Oh! How beautiful it is, I exclaimed. Alphonse, my friend, I have just died. I understand death. I understand how one dies, and why one dies. Oh! How sublime it is. Then I went into a state of which I have no memory at all" (p. 121).

"My material body evaporates, my voice is no longer mine: I am no longer myself!" (p. 139).

Entering the Darkness

"Then my apprehension increased to a degree that I cannot express" (p. 121).

"A state of darkness which one could truly call the lobby of life" (p. 178).

"The color black appeared to me to come out of the handsome hall resplendent in its clarity" (p. 197).

Seeing the Light

"It is a white mist like milk, it is an even white light" (p. 140).

"It is like a white light, pure and alone" (p. 141).

"What light I see" (p. 155).

"I see little luminous globes that rise up to the infinite heights; I am told that these are the souls rising to heaven" (p. 156).

"The light left this immensity which I was leaving as if from a little hole, enlarging into a sort of funnel, dividing into rays like golden wires" (p. 170).

"They are as brilliant as the sun" (p. 182).

"It seemed to me that this hall of light, this center of universal attraction was God" (p. 193).

Entering the Light

"This phenomenon is remarkable and gave me awareness of a very deep gratification of the passage of our terrestrial state to the spiritual state which we call death. I felt all the pains of the last moments of our material existence. I passed through agony and through death; this last moment of our life which brings so many tears to our dear ones, and which each one dreads as being the most painful, is on the contrary the one where the soul enters the vast land of liberty, the one where one breathes at one's ease and rejoices in the most pleasant sensations that one can imagine; it is the moment of supreme happiness" (pp. 183-184).

Ineffability

"I find it impossible to describe" (p. 107).

"I would give five hundred thousand francs if . . . you could see what I see" (p. 122).

"What I feel, what I experience at this moment, it is impossible for you to understand. Here, friend, listen, I will try to explain it to you. But in fact no, it is useless, because I know that you would not understand" (p. 124).

"I cannot write all that I said and especially all that I saw during those three hours, words cannot express the feelings that the soul experiences" (p. 134).

"I was in a rapture impossible to describe" (p. 199).

Perceived Reality

"There are no hallucinations, there are only disordered observations" (p. 111).

"Eh! Don't object that I was in a sort of hallucination which made it impossible for me to judge soundly; for I declare, never was my spirit so calm, never did I rejoice in a greater fullness of my reason" (p. 177).

"I looked on it as reality and not as a dream. A dream is only in this world; truth, light are in the other. They appear to you as soon as one penetrates it momentarily and even by an artificial means" (p. 181).

"Death is a state of the soul, another manner in which it can see things. I have died fifty times, by passing through fifty different states, in which I can observe different degrees of creation. . . . I leave it to the reader to judge whether in our material state we can raise ourselves to this height of conception and if these solutions feel like hallucination?" (pp. 202, 204).

Life Review

"The most beautiful sight a man could see was the reward for my sufferings, a vast panorama, where all that I would have seen, thought or known in my life was portrayed in brilliant colors, in the form of transparent pictures like window shades, lit from behind with an unequaled light. This panorama unrolled around me, turning with great brightness" (p. 108).

Encounters with Others

"A little ways away I see two spirits meet, to begin with they are much more beautiful, the woman, has long hair, she looks like Eve, as she is generally portrayed" (p. 127).

"At that moment I seemed to see the creator in a great light with the appearance of the human form" (p. 136).

"He sensed that his brother [dead] was there before him" (p. 151).

"I saw souls by the thousands. What was most surprising to me, was that I knew that they were souls and they did not have human forms, rather they were little spheres or balls barely as big as the end of a little finger, they were of a dazzling whiteness" (pp. 169-170).

"I looked at . . . my little girl, my Stephanie, who died at the age of nine. The face of this beloved child . . . appeared . . . in the clearest manner, the most striking, the most minutely exact. Even more, I saw her holding the index finger of her right hand in her nose; a habit she had developed in the last days of her lingering death, and of which I had no recall. At the end of an indefinite time, but nevertheless long enough so that I had no doubt of the reality of the vision, her face faded as it had appeared . . ." (p. 191).

Auditory Sensations

"What harmony! What subtle music! How grand it all is, how sublime!" (pp. 157-158).

"Each of his nerves and fibers seemed to him to be a harmonious chord which corresponds to these same instruments and gives a sound which, mingled with a great number of others . . . leaves his senses with a musical impression as complicated as it was aggreeable" (pp. 160-161).

Visions or Thoughts of Great Knowledge

"God is so good that he has permitted me who knows nothing, to understand the marvels of the creation" (p. 122).

"Swedenborg was right to say that we have a universe in us, because I can embrace the whole universe at one time" (p. 124).

"Swedenborg, whom we revere so, was not in a different state than I; I see what he saw, I understand what he understood" (p. 126).

"I understand eternity" (p. 126).

"I also understood what space and creation was" (p. 136).

"It is heaven that I see, allow me, send me, oh my God, to men to tell and explain your law. . . . Men dwell in such ignorance; I was ignorant as they are, but if they knew what I know now!" (pp. 155-156).

"Now I must tell you how I thought I understood God" (p. 192).

Altered Sense of Time and Space

"I felt it [my body] stretch out into infinity" (p. 143).

"One cannot express the speed with which this multitude of pictures passes before the eyes of the spirit" (p. 182).

"The rapid succession in which the scenes that I saw took place proved to me that I could see in one second that which would take me years to observe in my material state; therefore there is no time in that state" (p. 183).

Threshold and Return

"I was no longer on earth, I would have liked never to return, but I thought of my family, and I understood that I had to return" (p. 135).

"I enjoyed myself enormously in this state of light, and as I was completely aware that it was not clear to me, I felt myself seized with regret at the thought that I would have to abandon it in a few moments to return to the material life, a regret that was not sweetened by the knowledge that I would return one day" (p. 178).

> "Here ends the interesting and enlightening portion of my experiment. After that moment, it appeared that I entered a rather bizarre state. . . . I have very faint memory of this state. . . . A few cold breaths on the head and several swallows of vinegar-water, which you made me swallow, and sponging of the forehead and temples with the same water halted the attack and I reentered ordinary life" (p. 194).

Aftereffects

> "Everything seemed sad to me compared to that which I had seen. The feelings of the soul are so vivid, and if one feels again such great happiness, all the earthly emotions and joys seem as nothing; but everything went away and although always having the memory of these pictures, one enters into the earthly state with too much regret" (p. 138).

> "Under the influence of hashish one is absolutely convinced of this profound truth, and although rid of this influence it remains in your spirit for life" (pp. 200-201).

EARLY AMERICAN EXPERIENCES

While Moreau, Le Club, and Cahagnet were exploring hashish-induced experiences in France, independent experimentation was reported by several Americans traveling in Egypt and Syria. Bayard Taylor (1855) described his experiences in one of the earliest accounts by an American. Taylor found that hashish helped

> to divest my frame of its earthly and material nature, until my substance appeared to me no grosser than the vapors of the atmosphere. . . . The sense of limitation–of the confinement of our senses within the bounds of our flesh and blood–instantly fell away. The walls of my frame were burst outward and tumbled into ruin; and, without thinking what form I wore–losing sight even of all idea of form–I felt that I existed throughout a vast extent of space. . . . It is difficult to describe this sensation. . . . The physical feeling of extended being was accompanied by the image of an exploding meteor. . . . Every effort to preserve my reason was accompanied by a pang of mortal fear. . . . The thought of death, which also haunted me, was far less bitter than this dread. I knew that in the struggle which was going on in my frame, I was borne fearfully near the dark gulf. . . . My companion was now approaching the same condition. . . . He cried out to me that he was dying . . . but what is death to madness? (pp. 134-146).

Taylor's experience included visions of unusual lights, music, and wondrous constructions of jewels and stone. These constructions were also described by an anonymous lawyer who resided in Damascus for five years and became an habitué of hashish. In the September

1856 issue of *Putnam's Magazine* he wrote:

> I stood in divine elevation above a marble altar. There were giant colonnades on either side, sweeping forward to a monstrous portal, through which I beheld countless sphinxes facing each other down an interminable avenue of granite. Before me, in the mighty space between the columns, was a multitude of men, all bowing with their faces to the earth, while priests chanted anthems to my praise as the great Osiris. But suddenly, before I could shake the temple with my nod, I saw one in the image of Christ enter the portal and advance through the crowd to the foot of my altar. It was not Christ the risen and glorified; but the human and crucified Jesus of Nazareth. I knew him by his grave sweetness of countenance. . . . He beckoned me to descend. . . . He disappeared, and when I rose the temple had disappeared also. . . . (Ebin, 1961, p. 60).

The over-the-counter availability of patent medicine extracts of *Cannabis* provided others in nineteenth-century America easy access to the experience. The first full-length English work to appear on hashish was *The Hasheesh Eater* by FitzHugh Ludlow (1857), published anonymously while he was a student at Union College in Schnectady, New York.

Typically, Ludlow (1857) reported his hashish experiences as hallucinations wherein:

> The moment that I closed my eyes a vision of celestial glory burst upon me. I stood on the silver strand of a translucent, boundless lake, across whose bosom I seemed to have been just transported. A short way up the beach, a temple, modeled like the Parthenon, lifted its spotless and gleaming columns of alabaster sublimely into a rosy air—like the Parthenon, yet as much excelling it as the godlike ideal of architecture must transcend that ideal realized by man. Unblemished in its purity of whiteness, faultless in the unbroken symmetry of every line and angle, its pediment was draped in odorous clouds, whose tints outshone the rainbow. It was the work of an unearthly builder, and my soul stood before it in a trance of ecstasy. . . . I pass in. . . . An atmosphere of fathomless and soul-satisfying serenity surrounded and transfused me. . . . They were all clad in flowing robes, like God's highpriests, and each one held in his hand a lyre of unearthly workmanship. . . . While his celestial chords were trembling up into their sublime fullness, another strikes his strings, and now they blend upon my ravished ear in such a symphony as was never heard elsewhere, and I shall never hear again out of the Great Presence. . . . Throughout all the infinitudes around me I looked out, and met no boundaries of space. . . . With ecstasy the whole soul drank in revelations from every province, and cried out, "Oh, awful loveliness!" . . . Through whatever region or circumstance I passed, one characteristic of the vision remained unchanged: peace—everywhere godlike peace, the sum of all conceivable desires satisfied (pp. 34-42).

But on at least one occasion he took an excessive dosage resulting in a particularly traumatic experience:

> In the course of my delirium, the soul, I plainly discovered, had indeed departed from the body. I was that soul utterly divorced from the corporeal nature, disjoined, clarified, purified. From the air in which I hovered I looked down upon my former receptical. . . . This was neither hallucination nor dream. The sight of my reason was preternaturally intense, and I remembered that this was one of the states which frequently occur to men immediately before their death has become apparent to lookers-on, and also in the more remarkable conditions of trance. That such a state is possible is incontestably proved by many cases on record in which it has fallen under the observation of students most eminent in physico-psychical science. A voice of command called on me to return into the body, saying in the midst of my exultation over what I thought was my final disenfranchisement from the corporeal, "The time is not yet." I returned, and again felt the animal nature joined to me by its mysterious threads of conduction. Once more soul and body were one (pp. 74-75).

In an experience vaguely reminiscent of Giraud's medically supervised hashish experiment, American novelist Mary Hungerford described in 1884 her "overdose" of hashish:

> The physicians asked then the size and time of the last dose, but I could not answer. . . . In the midst of it all I left my body, and quietly from the foot of the bed watched my unhappy self nodding with frightful velocity. I glanced indignantly at the shamefully indifferent group that did not even appear to notice the frantic motions, and resumed my place in my living temple of flesh in time to recover sufficiently to observe one doctor lift his finger from my wrist, where he had laid it to count the pulsations just as I lapsed into unconsciousness, and say to the other: "I think she moved her head. She means us to understand that she has taken largely of the cannabis indica." . . . I died, as I believed, although by a strange double consciousness I knew that I should again reanimate the body I had left. In leaving it I did not soar away, as one delights to think of the freed spirits soaring. Neither did I linger around dear, familiar scenes. I sank, an intangible, impalpable shape, through the bed, the floors, the the cellar, the earth, down, down, down! (Palmer and Horowitz, 1982, pp. 88-89).

Believing she was dead, Hungerford became possessed by fear and loneliness:

> It was not only death I feared with a wild, unreasoning terror, but there was a fearful expectation of judgment, which must, I think, be like the torture of lost souls. . . . In place of my lost senses I had a marvelously keen sixth sense of power, which I can only describe as an intense super-

> human consciousness that in some way embraced all the fine and went immeasurably beyond. . . . As time went on, and my dropping through space continued, I became filled with the most profound loneliness (Walton, 1938, pp. 97-98).

Chemist Victor Robinson (1912), following in the footsteps of Moreau (1845) and Cahagnet (1850), conducted a series of experiments and careful observations of hashish. He described a typical experience:

> I hear music. . . . The magic of that melody bewitches my soul. I begin to rise horizontally from my couch. No walls impede my progress, and I float into the outside air. Sweeter and sweeter grows the music, it bears me higher and higher, and I float in tune with the infinite—under the turquoise heavens where globules of mercury are glittering. . . . I am transported to wonderland. I walk in streets where gold is dirt. . . . Some faces are strange, some I knew on earth, but all are lovely. They smile, and sing and dance. . . . I hear my sister come home from the opera. I wish to call her. . . . The result is a fizzle. No sound issues from my lips. My lips do not move. I give it up. . . . Then the vision grows so wondrous, that body and soul I give myself up to it, and I taste the fabled joys of paradise. Ah, what this night is worth! (pp. 66-71)

Despite the vividness, spontaneity, and involuntariness of these images, Robinson, like many other American hashish users, recognized them as hallucinations: "I know they are not real, I know I see them because I took hasheesh, but they annoy me nevertheless" (Robinson, 1912, p. 72).

COMMENTS

The annoyance expressed by Robinson has been echoed throughout the French and American hashish literature. While the majority of writers endorsed the interpretation first suggested by Moreau (1845) that these hashish-induced NDEs were simply hallucinations, others, like Cahagnet (1850) and his group of Swedenborg followers, believed in an underlying spiritual reality. Cahagnet's ecstasies clearly described the major elements and sequences of NDEs, although it should be noted that they were not present in every intoxication. Indeed, at least one subject failed to report any subjective experience. But many of his subjects had visions, if not beliefs as well, of dying, death, and an afterlife. While their Swedenborg-inspired spiritual set and setting, important determinants of hallucinogenic experiences, undoubtedly influenced their NDEs, such "spiritual"-

flavored experiences also appeared, albeit less dramatically, among reports from other French and American users. Yet all mentioned common NDE elements and sequences.

Taken together, this literature suggests that hashish-induced experiences lie on a continuum ranging from mild inebriation to stages of dissociation, out-of-body experiences, hallucinations, and NDEs. The stages are not clearly divisible and any given stage may contain elements of the others, thus illustrating an inherent difference in the dynamics of hashish and nonhashish NDEs. The experience of moving along this continuum appears to be marked by changes in perceived reality. With low dosages of hashish, users view events as separate from themselves (e.g., seeing a light). Higher dosages produce a sensation of involvement in the events (e.g., going into the light). Concomitantly, images initially perceived as being "like" or "similar" to real events are perceived, with high dosages, as being "in fact" real events. Thus, the differences between the hashish NDEs and other nondrug NDEs appears to be more a function of dosage or intensity than the fact that a drug was or was not used to trigger the experience.

The high dosages of THC employed by Cahagnet and others invite speculation regarding an actual toxic threat to the body, perhaps common to the hashish NDE. While few subjects have actually died from hashish poisoning, we are unlikely to know for certain just how life-threatening these hashish intoxications are. Contemporary research guidelines prevent human subjects from receiving dosages equivalent (up to 175 mg THC) to those discussed here. Theoretically, these dosages are in the range of those expected to be lethal in approximately four percent of the intoxications (Nahas, 1973). Death would result from coma and respiratory arrest. But even in intoxications with lower dosages of 10-20 mg THC (Siegel and Jarvik, 1975), similar NDE elements can be found. To the extent that an overdose of hashish produces death, higher doses should produce more intense NDEs, and that is exactly what happens. Whether or not this reflects incipient death is unknown. But the resultant high-dose experience is more similar to a classical NDE than a traditional hashish intoxication or hallucination.

The hashish-induced NDE, as examined in the work of Cahagnet (1850) and others, is more strikingly similar to nondrug-induced experiences than was previously noted in a discussion of drug-induced NDEs (Siegel, 1980). While such similarity cannot resolve questions concerning the reality of a hashish-induced NDE, Moreau's (1845) explanation as hallucination was rejected by those who

experienced it. Indeed, Cahagnet, having read Moreau's book, commented that Moreau was only "struggling with the need to find new terms to classify the different states of the soul which are contained in dreams, thoughts, hallucinations, or derangement. . . . Suffice it to say that he is neither against us nor with us" (Cahagnet, 1850, p. 283). In keeping with this spirit, the present review of hashish-induced experiences adds to the catalog of situations associated with NDEs; it does not argue their interpretation.

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Ketamine and the Near-Death Experience[1]

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ABSTRACT

The phenomenology that typically accompanies the near-death experience (NDE) is also sometimes a by-product of ketamine, an anesthetic used in both medical and recreational settings. Some surveys indicate that NDE-type ketamine hallucinations are quite common. The close parallels between some ketamine experiences and the NDE can be explained by a variety of conceptual models, including these: the NDE is a similar form of chemically induced hallucination; ketamine induces objective out-of-body experiences (OBEs); ketamine-linked NDEs are artifacts produced by expectancy and the hospital setting; or the NDE is an archetypal experience catalyzed under a variety of different situations. Each of these theories has explanatory advantages and disadvantages.

INTRODUCTION

The following experience was reported by a hospital patient who had recently undergone surgery:

> My mind left my body and apparently went to what some describe as the "second state." I felt I was in a huge, well-lit room, in front of a massive throne draped in lush velvet. I saw nothing else but felt the presence of higher intelligences tapping my mind of every experience and impression I had gathered. I begged to be released, to return to my body. It was terrifying. Finally, I blacked out and slowly came to in the recovery room ("Ketamine and Back," 1978, p. 8).

Some elements of this type of experience are commonly reported by people who have had close brushes with death. The above quotation seems to be very similar to the type of experiences that have been collected by Raymond Moody (1975), Kenneth Ring (1980), Michael Sabom (1982), and other researchers interested in the mystery posed by the near-death experience (NDE). The amazing feature of this account, however, is that it was not contributed by someone who

had allegedly died and come back. The reporter was, in fact, in little danger of death at all. He was undergoing minor surgery and was suffering a hallucination accompanying his emergence from ketamine, a commonly used general anesthetic.

THE NATURE AND CONTENT OF KETAMINE HALLUCINATIONS[2]

Ketamine is an arylcycloalkylamine often given to children or the elderly as a general anesthetic or analgesic, depending on the dose. The drug was first synthesized in 1962 by Calvin Stevens at the Parke-Davis laboratories in Ann Arbor, Michigan, but was not reported in the literature until 1965 (McCarthy, 1981). It is chemically related to the better known and notorious drug phencyclidine (commonly called PCP or "angel dust") and was developed when it became clear that the latter was impractical for use as an anesthetic because of its side effects. Ketamine is most often used intravenously or intermuscularly as a general anesthetic for patients who cannot risk cardiovascular depression during surgery. When taken recreationally in lower doses, it induces a short psychedelic "trip" resembling that induced by lysergic acid diethylamide (LSD). Similar mind-expanding and hallucinogenic effects are sometimes reported by patients recovering from the drug when it is used as a general anesthetic. A report issued from Parke-Davis acknowledged that these emergence reactions occur in 12% of those to whom it is administered (cited in Grinspoon and Bakalar, 1979; see also Domino, Chodoff, and Corssen, 1965).

It is the curious and sometimes consistent nature of these hallucinations that have a bearing on the study of the NDE. Ketamine is classified as a dissociative anesthetic in that the patient or user reports being detached from his body and environment when under the influence of the drug. The original Parke-Davis report only admitted that the drug induces psychological effects varying in severity from "pleasant dream-like states" to "vivid images, hallucinations, and emergent delirium." However, many experts on hallucinogenic drugs have specifically noted that these images closely match descriptions of out-of-body experiences (OBEs) and NDEs. Lester Grinspoon and James B. Bakalar (1979) at Harvard University have written that the dissociative experience induced by ketamine somewhat resembles LSD, "with a tendency toward a sense of disconnection from the surroundings: floating, suspension in outer space, becoming a disembodied mind or soul, dying and going to another world. . . .

The dissociative experiences often seem so genuine that afterward users are not sure that they have not actually left their bodies" (p. 34).

QUALITATIVE SIMILARITIES BETWEEN THE NDE AND KETAMINE HALLUCINATIONS

The similarities between *some* NDEs and *some* ketamine trips are quite striking. Cited below, for example, are four experiential accounts that describe typical NDE phenomenology. The first is a classic NDE and is matched to a ketamine experience that displays similar features. The third case is also drawn from the NDE literature and is matched with a ketamine experience reported by a medical doctor. Several common themes are shared by all four of the following accounts. I have freely edited these narratives and have summarized portions of them in order to accentuate the similarities.

In the first case, a woman reported how, while in a hospital,

> I found myself, quite suddenly, existing in a dark gray mist. I sensed that I had died. I had died and yet I still existed. A dazzling brightness infiltrated the mist and, ultimately, cradled me in a way that I cannot describe. The awareness of my physical body left me. I seemed to exist as consciousness only, pure and free-floating. My thoughts? I had none. But feelings my cup did, indeed, run over. Bliss . . . rapture . . . joy . . . ecstasy, all of the above, and in such measure that it cannot be compared or understood. As the light continued to surround me and engulf me, my consciousness expanded and admitted more and more of what the light embraces; peace and unconditional love . . . (Smith, 1983, pp. 7, 10).

At that point in the experience the woman found herself in a pastoral setting, met a guide who counseled her, and then found herself back in the hospital.

In the second case, a recreational ketamine experience, a young man reported how he underwent an "NDE" at home:

> At one point the world disappeared. I was no longer in my body. I didn't have a body. . . . Then I reached a point at which I felt ready to die. It wasn't a question of choice, it was just a wave that carried me higher and higher, at the same time that I was having what in my normal state I would call a horror of death. It became obvious to me that it was not at all what I had anticipated death to be, except, it was death, that something was dying. I reached a point which I gave it all away. I just yielded, and then I entered a space in which there aren't any words. The words that have been used have been used a thousand times—starting with Buddha. I mean, at-one-with-the-universe, recognizing-your-Godhead—all those words I later used to explore what I had experienced. The feeling

> was that I was "home." . . . It was a bliss state of a kind I never experienced before (Stafford, 1983).

The young man wanted to prolong the state indefinitely but gradually returned to his body against his will.

The third case (MacMillan and Brown, 1971) is an NDE reported by a cardiac-arrest victim. A middle-aged man reported to his doctors how he had lost consciousness and then found himself staring at his own body. Next he found himself catapulted out into space and floating in a bright light. He could not locate any body attached to his consciousness and "awoke" back in his body when he felt a disturbance at his side.

The fourth case is a ketamine reaction reported by a doctor undergoing surgery. He reported he heard odd buzzing sounds in his ears. He fell unconscious, but then "gradually I realized my mind existed and I could think. I had no consciousness of existing in a body; I was mind suspended in space." The doctor then found himself floating in a void. "I was not afraid," he reported, "I was more curious." He thought, "This is death. I am a soul, and I am going to wherever souls go" (Johnstone, 1973, pp. 460-461). The doctor became confused at that point and gradually became aware that he was back in the hospital, inhabiting his familiar body.

Leaving the body, entering into a oneness with the universe, journeying through space to another world, and reluctantly reentering the body are all themes that are shared in one way or another in these four reports; yet they have been drawn from disparate sources. The first case (Smith, 1983) was reported by a woman who had nearly died during childbirth. The matching ketamine case (Stafford, 1983) was reported by a young musician who was making recreational use of ketamine. The third case has been summarized from the now classic report by R.L. MacMillan and K.W.G. Brown (1971) on an NDE reported by a cardiac-arrest patient in Canada. That report, it might be noted, was one of the first to bring scientific attention to the NDE. The last case was reported by Robert Johnstone (1969), a physician at the University of Pennsylvania, and describes what he experienced after being given ketamine as an anesthetic.

SURVEY DATA

What is so peculiar about ketamine is just how common these NDE-type hallucinations appear to be. This may result from the way the drug affects the central nervous system. Ketamine seems to

suppress areas of the brain that regulate the reception and relaying of sensory data. At the same time it apparently stimulates other areas of the brain. When the anesthetic begins to wear off, or when the dose is too small to induce unconsciousness, the patient or user may well experience being "aware" but dissociated from his or her body and physical environment. The central nervous system simply may not be recording information from such sources. Such a state, which is similar to that induced by sensory deprivation, might well be experienced as an NDE or OBE. The idea that ketamine may produce a chemical analogue of sensory deprivation has been specifically suggested by Barbara Collier (1972) as a result of her own studies of ketamine in Great Britain.

Collier noted in her report (1972) that ketamine-related hallucinations can manifest in a variety of forms, including color distortion, seeing figures standing by one's bed, floating faces, and so on. But the "core" of the ketamine experience, according to her rather large data base, are sensations very reminiscent of OBEs and NDEs. Her first project, for instance, entailed monitoring the reactions of 90 patients given ketamine before surgery. Twelve percent of them had hallucinations of "floating" while recovering, and several of the patients later told Collier that they felt they had "died" and had been separated from their bodies. One patient even reported that he had ascended to heaven while undergoing surgery, had confronted God, and believed himself reincarnated when he found himself back in the body! The memory of the experience was so vivid that he retained a perfect recollection of the hallucination even after six months.

A specific connection between ketamine hallucinations and what is now called the NDE became even more apparent when Collier conducted a follow-up study on eleven patients undergoing ketamine-induced anesthesia. Ten of the patients reported they had found themselves floating away from the body, of which nine specifically experienced the mind *withdrawing* from the body. Three patients went on to report how they had looked back at their own physical bodies and had later experienced reentering them. Two of the eleven patients also reported leaving the recovery room while disembodied and flying out into space through some sort of void.

POSSIBLE DIFFERENCES BETWEEN NDEs AND KETAMINE HALLUCINATIONS

While there are numerous and important parallels between the

NDE and some ketamine hallucinations and emergence reactions, there are a few differences that should be noted. The first is the affective component that typifies both experiences. People undergoing NDEs tend to report a sense of peace and well-being while out of body. Ring (1980) found this component present in 59% of 49 cases he studied. People undergoing ketamine hallucinations, especially if they are unprepared for what to expect, are often very frightened by their experiences, as typified by the account ("Ketamine and Back," 1978) that opened this paper. Johnstone (1973), too, had an out-of-body experience and reentry marked by panic. Since ketamine acts in part as a stimulus on the central nervous system, anxiety reactions to ketamine-linked NDE phenomenology may be physiologically linked and not a psychological component of the experience. Recreational users commonly report sensations of ecstasy while under the drug's influence (Moore and Alltounian, 1978), as typified by the second case (Stafford, 1983) reported above. Obviously setting and expectancy are components that influence one's affective reaction to ketamine. People who undergo NDEs also often report that they inhabited a "second" body during their NDE (Green and Friedman, 1983), while it seems that ketamine users and patients more often find themselves simply disembodied.[3]

It should be noted, however, that any qualitative differences between ketamine hallucinations and NDEs are very speculative. Very few quantitative data are available on the nature and specific phenomenology of ketamine hallucinations, so even the minor differences noted here may be based on artifactual or on incomplete information.

EXPLANATORY MODELS

Merely noting that ketamine-induced hallucinations and NDE accounts are similar really does not imply anything specific or ontological about the nature of or the possible relationship between the two sets of experiences. Researchers familiar with the drug have offered a wide range of speculation about the possible nexus. John Lilly (1978), who has self-experimented with the drug, believes that ketamine is virtually a chemical road to the OBE. Timothy Leary (1983) has typified the ketamine trip as being a method by which one can explore death while remaining alive. On the other side of the theoretical spectrum, Dr. Ronald Siegel (1980)—who has conducted clinical research into the ketamine experience—takes a reductionistic approach to the similarities between NDEs and some

ketamine hallucinations. He has posited that both experiences are hallucinations resulting from neurophysiological activity and have no metaphysical reality.

So just what is the precise connection between this unusual drug and the NDE? There are actually four very different models that can account for the resemblances between ketamine hallucinations and NDEs. They will be discussed in turn.

The first (and most obvious) way of explaining the similarities is to adopt Siegel's (1980) view that both experiences—the NDE and ketamine reactions—are similar, organically based dissociative hallucinations. Siegel has shown in his many reports that the various components of the NDE can be found spread piecemeal within the literature on drug-induced hallucinations—especially those induced by LSD, mescaline, and ketamine. That suggests to him that NDEs are really nothing more than by-products of brain chemistry. A related theory has been proposed by Grinspoon and Bakalar (1979), who have suggested that the brain may synthesize a chemical similar to ketamine in times of severe stress. When the chemical is reabsorbed or processed by the brain, they suggested, the victim may experience the delusion of leaving the body. The problem with that type of theory is that it cannot account for the predictable and cross-cultural patterns to which the NDE adheres and the inconsistency within the content of ketamine reactions. NDE-type hallucinations are not an invariable outcome of ketamine administration. They represent only one subtype within a wide range of hallucinatory reactions to the drug. Many patients have no emergence reactions at all. People who undergo NDEs tend to universally describe similar experiences.

The above theory may seem totally adequate and self-evident. But there is also a very different way of interpreting the relationship between ketamine and the NDE. Many types of anesthetics seem to induce OBEs, especially nitrous oxide and ether (Crookall, 1961, 1964). It may be that ketamine works on the body in such a way as to *allow* a very genuine OBE to take place. It is very hard to dismiss that idea, especially if one accepts the "reality" (i.e., the objective and paranormal nature) of the OBE and NDE. One response to this theory, however, would be to argue that the theory is much too limited and internally inconsistent. Since ketamine is intensely psychedelic and hallucinogenic, it would be illogical and senseless to posit that OBE sensations are "genuine" (i.e., objective) while other types of ketamine-induced hallucinations (such as seeing apparitions of living people or floating faces) are delusionary (i.e., subjective).

A third theory would be that ketamine, in and by itself, doesn't really produce NDE hallucinations at all. We might be seeing an artifact produced by the hospital setting from which these peculiar hallucinations are so often reported. If one surveys the literature on ketamine use, it will become apparent that most NDE-type ketamine experiences have been reported from recovering hospital patients who received the drug as an anesthetic. Reports written by people who have made purely recreational use of the drug do not, in my opinion, often seem to report NDE-type experiences. Now, the qualitative difference between these two sets of data may result from the much larger doses administered medically than normally used recreationally.[4] But it could also indicate something psychologically more complex. Perhaps, it might be suggested, ketamine really only produces a vague sense of being disembodied. A patient recovering from surgery and ketamine anesthesia might naturally be concerned with such issues as death and what lies beyond. That preoccupation might then influence and modify any ketamine hallucinations to which he or she would be normally prone. The patient might misinterpret typical ketamine-linked floating sensations as the release of the soul from the body, and then build up an elaborate fantasy around them. Many writers on ketamine have specifically noted that the interpretation of the ketamine experience is strongly influenced by the setting under which the drug is taken.

A final theory might be that we are witnessing the emergence of a chemically induced archetypal experience. Stanislav Grof and Joan Halifax (1977) have suggested that the NDE is an encapsulated archetypal experience coded into the human brain, which is activated under certain very specific conditions. Perhaps ketamine, like the stress produced by a close brush with death, catalyzes the emergence of the archetypal complex. That idea is also similar to the views of Michael Grosso (1983), who has suggested that the NDE is an archetypal experience that can be induced under a variety of conditions. The problem with this theory is that it could be called a "non-theory," since it explains one unknown by another (i.e., worldwide archetypes).

At the present time all of these explanations may well be equally viable. Each has its advantages and disadvantages when it comes to explaining the data presented in this paper. How one wishes to interpret the ketamine-NDE relationship is really a matter of choice or individual bias rather than logic and analysis. The main point raised by the study of ketamine-related NDE phenomenology, how-

ever, is that the core meaning of the NDE is obviously not as simple and clear-cut as some researchers have tried to make it. It no longer seems very practical to say that, of and by themselves, NDEs are "proof" of life after death. The fact that ketamine-induced hallucinations resemble NDEs in so many details casts at least some doubt on any simplistic metaphysical model of the NDE.

The data presented here are meant to serve only as food for thought. Just which school of thought about the meaning of the NDE will be best nourished by them is, at the present time, maddeningly unknown.

NOTES

1. This paper has been freely adapted and recast from an article that originally appeared in *Fate* magazine. I would also like to thank Dr. Ronald Siegel for kindly answering some of my questions about ketamine and directing me to some of the literature cited in this report.

2. The term *hallucination* as used here is not meant to imply anything about the nature of the ketamine experience, but only to conform to the medical literature on ketamine emergence reactions and related experiences.

3. It might be noted that people who undergo OBEs in real-life situations also more commonly report being disembodied than inhabiting any sort of apparitional form (Green, 1968).

4. While preparing this paper I interviewed a number of people in the Los Angeles area known to have made extensive recreational use of ketamine. No incidence of phenomenology typical of the NDE or OBE was reported. These people were usually crystallizing the drug before ingesting it, thus taking lower doses than used medically.

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BOOK REVIEW

Beyond the Body: An Investigation of Out-of-the-Body Experiences

by Susan J. Blackmore–Heinemann, 1982

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Susan Blackmore's *Beyond the Body* is a greatly expanded version of her 1978 pamphlet, "Parapsychology and Out-of-the-Body Experiences," published for the Society for Psychical Research (SPR). As in that earlier work, Dr. Blackmore in the present book examines past and present research on out-of-body experiences (OBEs) in order to compare the merits and weaknesses of the two primary approaches to understanding OBEs: that which says something (the soul, consciousness, the astral body, or whatever) leaves the physical body during an OBE; and that which says nothing leaves the body, the OBE deriving instead from physiological, psychological, or parapsychological processes originating "within" the body. Those looking for new case material, comprehensive case reports, or in-depth analyses of data will not find them here; the book is instead a broad survey intended primarily to introduce readers to the issues and approaches to research on OBEs. For those of us interested in near-death experiences (NDEs), this book serves the invaluable function of reminding us of the context within which the NDE, seemingly a subspecies of the OBE, must be studied. Additionally, however, both for those interested primarily in NDEs and for those whose interests extend more broadly to the fields of psychical research and parapsychology, Blackmore's proposals confront us with important methodological questions about how we may most productively pursue research on OBEs and, by extension, on other apparently paranormal phenomena.

Blackmore begins her book by describing her own remarkable OBE and by outlining the questions it later raised in her mind.

She then gives her definition of the OBE, in which the key word is "experience." Because we thus far have no objective criteria for identifying an OBE, we can only study people's reports of having experienced being out of the body. Thus, "the OBE is not some kind of psychic phenomenon," although "it may turn out to be one associated with ESP and paranormal events" (p. 15). According to Blackmore, the most important advantage of this definition is that it implies no particular interpretation of the OBE.

In order to clear the air of implied interpretations, Blackmore next outlines the doctrine of astral projection, historically "the most influential" theory of the OBE. She also describes the experiences and theories of habitual OBErs such as Oliver Fox, Sylvan Muldoon, Yram (Marcel-Louis Forhan), J.M.H. Whiteman, and Robert Monroe, and she looks at the case collections of Muldoon and Hereward Carrington and of Robert Crookall. The assumptions behind astral projection theory weaken when one sees "how variable the OBE can be" (p. 32) and when one realizes, because of errors in OBErs' reports about the physical world, "that the OBEr is not seeing a complete duplicate of the physical world at that time" (p. 41). Furthermore, the occult theorists' attempts to grapple with these problems have only led to the theory's becoming too "stretchable" and complex to be of much use in a scientific investigation.

Blackmore then turns to cases collected by investigators who have not analyzed them in terms of astral projection theory. Looking first at Hornell Hart's collection of "ESP projection" cases, she criticizes him for "ruling out the majority of cases on the basis of a very shaky criterion" (p. 59), that is, the presence of ESP claims that included veridical information. Because we can never be sure whether or not ESP has occurred in a given situation, Hart's criterion might not be a valid one. Blackmore therefore takes several other collections (those of Celia Green, John C. Poynton, the SPR, and her own) and analyzes several features of them, frequently comparing the results with findings of the astral projection theorists. After a chapter that describes beliefs about the double in other cultures, she also examines the findings of several more systematic surveys. Her conclusion is that these "confirm the findings of the case collections: that few OBEs include all the features of a classical astral projection" (p. 93).

Blackmore next examines several methods purported to induce OBEs, all designed essentially to elicit and control vivid imagery; and then she turns her attention to an important related area, the lucid dream. By describing research, such as Keith Hearne's, on the

lucid dream and the research of Charles Tart, Janet Mitchell, and Karlis Osis on physiology in the OBE, Blackmore shows that OBEs and lucid dreams are phenomenologically similar but physiologically different.

Chapters 13 and 14 deal more directly with the question of survival after death, presenting some of the evidence from apparitions, deathbed visions, and NDEs. Much of the evidence, according to Blackmore, is seriously flawed, and the remainder still does not allow us to choose between the interpretation that the experiences are a preview of death and the interpretation that they can all be accounted for by physiological and psychological processes.

Accordingly, Blackmore looks further at some of those latter processes to see how well they *do* account for OBEs. Theories about depersonalization and doubles seem unhelpful, since the phenomena associated with them are so different from OBEs. On the other hand, OBEs are closely similar to normal mental imagery, differing only in degree and not in kind. Blackmore describes research showing no relationship between imagery skills and the occurrence of an OBE; other research, however, has indicated that absorption, or "the capacity to become absorbed in [one's] experience" (p. 170), does seem to predict who is more likely to have an OBE. For Blackmore, therefore, "the simplest and most appealing conclusion is that . . . OBEs are based on . . . imagination and hallucination" (p. 172).

The detection, however, of some undeniable paranormal feature in an OBE would require the additional conclusion that OBEs are not based *only* on imagination and hallucination. In four chapters, Blackmore examines research attempting such detection. The first question is whether persons, while having an OBE, occasionally obtain veridical information about the physical world by paranormal means. Blackmore passes swiftly over the anecdotal evidence, citing only the myriad problems associated with such research, and then describes some of the early work with hypnotized subjects on "exteriorization of sensibility," carried out by researchers such as Colonel Albert de Rochas and Hector Durville. Modern researchers on ESP in the OBE include primarily Tart, Osis, and John Palmer, but despite some isolated intriguing results, most of their work has yielded no evidence that ESP operates in experimentally induced OBEs. Blackmore concludes that "OBE vision, if it occurs, is extremely poor" (p. 199).

The second type of effort to establish the paranormality of the OBE has taken the form of efforts to detect a double or a soul. The older literature includes accounts of an OBEr appearing to someone at a distance. Some early researchers attempted to weigh

the soul by recording the weight of dying persons; others tried photographing the spirit, either as a person was dying or while a person was having an OBE; and still others experimented with an OBEr's ability to influence physical objects. More modern experiments have tested the ability of humans, animals, or physical apparatus to detect an OBEr purportedly visiting a distant location; but these, as well as the earlier work, Blackmore finds unimpressive.

In the final two chapters, Blackmore summarizes her assessment of the two major theories of the OBE (that something leaves the body and that nothing leaves the body). She dismisses the first with such conclusions as: "perception is not possible without some such mechanism [eyes, muscles, and nerves] " (p. 228); "personality is an aspect of a physical person. It is . . . the brain which thinks and controls actions" (p. 230); and "How can thoughts once created persist independently of the brain?" (p. 234). None of these statements, unfortunately, is accompanied by reference to or discussion of the extensive philosophical literature on the mind-body problem.

The second major theory she describes as one in which "nothing leaves the body in an OBE, and so there is nothing left to survive the death of that body" (p. 237), and she subdivides it into the parapsychological and the psychological approaches. Because she thinks it "possible that all the claims for ESP and PK [psychokinesis] in OBEs are groundless" (p. 242), she believes a psychological approach to the OBE is the most promising. Her own judgment is that the OBE is an altered state of consciousness in which "everything perceived . . . is a product of memory and imagination" (p. 243). Because this premise "leads to many testable predictions," it will hasten the day when we understand the nature of the OBE.

Yet will it hasten the day when we understand psi? I for one doubt it, unless psi is, after all, a delusion that psychological research will reveal unequivocally. Beneath Blackmore's assurances that her definition and approach to OBEs imply no interpretation of them seems to lie the assumption—baldly stated in more than one place—that there is no paranormal component to the OBE whatever.

The approach that one takes to research depends on the questions one wishes to answer and is entirely an individual choice. If one is primarily interested in OBEs (and NDEs) as an aspect of human behavior, then concentrating on the psychological processes manifesting under these conditions may be sufficient. Some persons may assume that OBEs (or NDEs) are purely psychological phenomena and will find in support of their assumption that the experiences obey certain psychological principles. Others may assume that OBEs

and NDEs point to a realm of human existence beyond the physical world, and they too will think they have found support for this in their psychological studies of the aftereffects or therapeutic effects of OBEs and NDEs. Like the astral projection theory of which she complains, the psychological theory Blackmore proposes can also be stretched to accommodate any aspect of OBEs, since OBEs occur in the context of human behavior and will therefore conform to some laws of human behavior, regardless of their own intrinsic nature.

If, however, one is interested in learning about psi and paranormal processes, rather than the OBE *per se*, a purely psychological study will only obscure and mask the phenomena one wishes to understand. As Blackmore constantly reminds us, ESP may be defined negatively and thus frustrate our efforts to make falsifiable predictions for our research, but parapsychology and psychical research need *not* be defined negatively. They are the study of the relationship between the mind and the body, specifically whether the functioning of the mind ever exceeds the limits normally placed on it by the body. They necessarily require an understanding of those normal limits (and hence of psychological processes), but if one allows, as Blackmore has done, the question of paranormal functioning to become "incidental to the theory" one is studying (p. 251), one has abdicated one's claim to be studying psi. If, in our eagerness to study, for example, the psychological concomitants of an OBE or the psychological repercussions of an NDE, we fail to look for or examine evidence of extrasensory functioning, then we have crossed the boundary separating parapsychology from psychology and have returned to the domain of the latter.

Blackmore asserts, in her criticism of Hart, that the weakness of an approach that examines only cases associated with claims of veridical ESP is that it defines the sample "on the basis of a very shaky criterion" and may in the process exclude genuine OBEs from study. If one is interested in the OBE only as a psychological experience, this criticism is valid, but if one is interested in the OBE as a context within which psi effects may occur, it is not. Hart used as his criterion that which defines psychical research as a field: instances in which we have evidence (in this case, a report of the details made before verification of them) that the mind seems to have exceeded its normal physiological and psychological limits. This criterion requires no definition of ESP, negative or otherwise, and all of the cases need not, in the end, be attributable to ESP. Some or all of the cases may be due to chance, some or all to faulty perception or reporting, or some or all to ESP. As Blackmore herself

explains, an experience becomes psychic "only in relation to other external circumstances . . . such as when a dream comes true" (p. 15). These external circumstances are not a *sufficient* condition for our judging an event to be paranormal, but they are a *necessary* condition, and so it is only by segregating and examining cases on the basis of this criterion that we can begin to tackle the question of paranormality.

Blackmore admits that she finds "the evidence for paranormal events during the OBE limited and unconvincing" (p. 242), and I admit to sharing her skepticism. Furthermore, I can only support wholeheartedly her desire to strip away from OBE research all the theoretical assumptions, biases, and speculations that have accumulated around it, particularly in the guise of astral projection theory. I would even add to her criticisms of past research the warning that much of NDE research appears to me to be taking the same course of allowing assumptions and speculation to far outstrip the data we have. Nevertheless, there is the danger that in sweeping away the old biases, we only replace them with new ones. In places Blackmore's presentation of the data reflects a tendency toward such biases. A few examples may illustrate this.

First, in discussing the errors in what people claim to have seen out of the body, she remarks that "People . . . see places as they expect them rather than as they are at that time" (p. 228). Although this may be true in many instances, it is not always true; Blackmore herself earlier cited (pp. 57-58, 126) two cases in which the OBEr apparently saw unexpected details. In another place she explains, quite rightly, that "No one knows for sure how memory is stored" (p. 235), but in the next paragraph, she rejects certain theories about the OBE because "Information to be stored [in memory] has to be coded into the form of variations in some physical system." In still another place, she supports her preference for a physiological explanation of conscious experiences under anaesthesia with the observation that "with the improved techniques of anaesthesia available today conscious experiences during an operation seem to be extremely rare" (pp. 48-49), a statement that may surprise NDE researchers. Unfortunately, she provides no supporting material for this assertion.

Elsewhere, in commenting on the finding that OBErs have scored higher than average on tests of absorption, she says "This makes sense from a psychological point of view because in an OBE one needs to become involved in the new perspective to the exclusion of the usual view" (pp. 170-171); it also, however, makes equal sense from a parapsychological, astral projection, or almost any other point of view. The finding may tell us a great deal about the conditions

necessary for the experience to occur, but it tells us little about the nature of the experience and nothing whatever about whether paranormal events might be associated with the experience.

Two final examples are her comments that "if the OBE is basically an hallucination and nothing leaves the body, then paranormal events ought not necessarily to be associated with it" (p. 176) and that "nothing leaves the body in an OBE and so there is nothing to survive" (p. 251). The second parts of these two statements do not seem to me to follow logically from the first. Furthermore, in making such statements, Blackmore seems to have forgotten her own assurances that the OBE need not itself be a paranormal state while still allowing for paranormal phenomena to occur in it and that the psychological approach she proposes "says nothing about survival" (p. 251).

Perhaps the most disturbing indication of her thinking occurs in the following passage, which I quote at length, partly because I admit to being unsure of her full meaning:

> I think that we may never have to answer the question [of whether there is or is not a paranormal aspect to the OBE] even though it is theoretically a most important one . . . A purely psychological theory of the OBE cannot directly account for paranormal phenomena and *if they occur they demand explanation* [italics added]. But I don't think that in the end we shall need to answer it. . . . One theory . . . will begin to seem more productive than others . . . [and] stimulate research. . . . We shall no longer ask whether there is ESP in the OBE or not because it will seem obvious. My guess is that it will be the psychological theories which will take on this role [of stimulating research] and that *the question of paranormal phenomena will quietly be dropped* [italics added] (p. 243).

Among the many questions that this passage raises for me, the most prominent is: how will it "become obvious" whether ESP does or does not occur in the OBE? And what is it that will be obvious, if we "never have to answer the question" itself? Blackmore may be advocating an indirect approach to ESP in the OBE; if so, she may be on the right track. Like an afterimage on the periphery of one's field of vision, psi phenomena may elude one's direct glance. If so, a more global approach in which one is alert for, but does not concentrate on, ESP may be more productive than the more direct approaches that have thus far proved so unsatisfactory.

What Blackmore seems to be describing in the above passage, however, is the social process in science by which some research topics are pursued and others are "quietly dropped." The surviving topics persist, not necessarily because they are the best or the strong-

est, but, as Blackmore put it, because they "stimulate research" and "lead to many testable predictions" (p. 250). Yet readily produced predictions are not necessarily about important issues; the more easily they are produced, the more likely it seems that they have skirted the important (and difficult) questions–such as whether or not paranormal cognition occurs in an OBE. Will a psychological approach to the OBE contribute importantly to parapsychology? Or, as I fear, will it only give persons less sympathetic to parapsychology than Blackmore the rationale for allowing the study of paranormal claims to fall through the cracks and disappear from scientific scrutiny?

I would be unfair if I allowed my remarks about my disagreements with Blackmore's approach to obscure the fact that her book is a useful and important one. Few people know the literature of this aspect of parapsychology as well as she does, and, although I thought her treatment of some issues (such as purported ESP) was too glibly superficial, she does touch on most of the major research and issues. A few (probably typographical) reference errors and errors in detail creep in. (For example, she says [p. 46] that 350 cases of apparitions, telepathy, and clairvoyance are reported in *Phantasms of the Living*; the actual number is twice that.) In general, however, she has produced a survey of OBE research that is both readable and scholarly. My regret is that she seems to have allowed the context of psi (the OBE) to become the issue and the issue (psi) to become lost. In so doing, she has not helped to break the impasse between those who think that something leaves the body during an OBE and those who do not; she has only taken sides.

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