Requirements for an Adequate Scientific Theory of NDEs

The first requirement for any scientific theory or hypothesis is that it be consistent with all aspects of the phenomena being studied. But consistency by itself is not enough; more than one hypothesis may be consistent with the phenomena. It is also necessary to show that competing hypotheses don't work. Further, the theory must be consistent with the total system of knowledge. If this consistency is not forthcoming, large-scale revisions in this system may be necessary. Finally, an adequate theory should enable us to predict new features and ramifications of the explicanda. Given these requirements, I don't think we know enough about near-death phenomena to provide a decisive theory or explanation. At most, we can take the first step and try to see whether some of the explanations that have already been proposed are consistent with the reported phenomena.

Explanations of Near-Death Experiences

The Bipolar Model of Osis and Haraldsson

Using information from a pilot study (Osis, 1961), and other sources, Osis and Haraldsson constructed a model to predict patterns in deathbed phenomena; this model is a "bipolar" one which contrasts two mutually exclusive hypotheses: survival and destruction. They then compared these two poles of explanation with relevant patterns in the findings on deathbed visions from their cross-cultural surveys of deathbed phenomena in the United States and India (Osis and Haraldsson, 1977a, 1977b). The patterns involved had to do with the source and content of the visions, the

influence on them of various medical and psychological factors, and their variability of content across individuals and cultures. Consider, for example, the influence of hallucinogenic factors; on the assumption of the survival hypothesis, the authors predict that drugs known to cause hallucinations will not increase the frequency of survival-related visions, nor will other states in which contact with reality is weakened or absent. They also predict on the survival hypothesis that conditions known to be incompatible with the occurrence of ESP will decrease the frequency of such visions. Regarding this point, for instance, the authors found that the majority of the reported deathbed hallucinations were visual and of short duration--which is the case in most spontaneous ESP experiences. (Pathological hallucinations tend to be auditory.) And finally, they found that, unlike the case of pathological hallucinations, there was little variability in the content of deathbed visions across individuals and cultures, again a finding compatable with the survival hypothesis. The authors conclude that overall the "central tendencies" of their data are consistent with the survival hypothesis of near-death experiences as they formulated it in their bipolar model (Ósis and Haraldsson, 1977a, p. 258).

Let us now look at several reductionistic explanations of near-death experiences, some of them engendered by criticisms of the Osis-Haraldsson work, and then proceed to a discussion of a nonreductionistic Jungian approach and the survival hypothesis in an effort to understand these experiences.

Medical Factors

Drugs and sensory deprivation: The parapsychologist, John Palmer (1978) has criticized the work of Osis and Haraldsson (1977a), who in turn provided a lengthy rejoinder (1978). The main thrust of Palmer's remarks is that certain baseline data are lacking in the study which invalidate the major conclusions, e.g., that medical factors such as drugs did not significantly influence the deathbed apparitions. Osis and Haraldsson contend that they did take the relevant information into account in interpreting their data, and that this information was derived from medical literature and the judgments of medically trained respondents. A major point made by Osis and Haraldsson in their response to Palmer is that the counter-survival explanation has to fit a special type of apparition--namely, the survival-related apparition. It is not enough to say, for instance, that drugs produce hallucinations to explain away deathbed visions; you must show that the kinds of hallucinations typically produced by drugs fit the pattern of hallucinations occurring in the deathbed scenario. But this is no easy matter, for typical drug-produced hallucinations are not at all like typical near-death hallucinations.

Palmer points out (p. 394) that sensory deprivation and stress are known to facilitate hallucinations. This is true. In a study of the psychological aspects of cardiovascular disease, for example, Reiser and Bakst (1975, p. 637) speak of the "simultaneous sensory overstimulation and monotony" prevailing in the hospital recovery room or intensive care unit--conditions conducive to hallucinatory experiences. Three factors, however, clearly differentiate such

hospital-induced hallucinations from NDEs. First, the former usually take place hours or days after the close brush with death, while the latter are reported by the patient as having occurred during the resuscitation procedures. Second, the postoperative effects in the first group of patients consist largely of "confusion, disorientation, and misperceptions," while the hallucinations of the ND experients are often reported as vivid, detailed, and accompanied by feelings of joy. And finally, Kornfeld and Zimberg (1965) describe the behavior of patients in the first group who "go berserk" and try to flee from the medical attendants; this type of behavior contrasts sharply with the frequently reported near-death behavior of NDE patients who become angry when they are restored to normal consciousness.

Cerebral anoxia and temporal lobe seizures. In a review of Osis and Haraldsson's (1977b) At the Hour of Death, James F. McHarg (1978), a British psychiatrist, criticized the authors for failing to consider the "most important" (p. 886) explanation for their ND findings: cerebral anoxia (oxygen shortage in brain metabolism). Osis and Haraldsson (1979) reply that the main behavioral manifestations of cerebral anoxia are anxiety, disorientation, and distortions of perception. These are poor matches for the ND syndrome. Further, there are reports (in Audette, 1979) of the extensive but hitherto unpublished work of Schoonmaker, a Denver cardiologist, who found cases of typical near-death experience in which cerebral anoxia was definitely ruled out as a relevant factor.

McHarg also considers temporal lobe paroxysms (epileptic

seizures) and cites three examples from his current clinical work. McHarg adds an important point: "A paranormal basis for the content of deathbed visions is not invalidated, however, by a medical reason for their mere occurrence" (p. 886). But McHarg ~~further~~ suggests that what Osis and Haraldsson take to be survival-related features of deathbed visions--e.g., seeing apparitions of the dead with a take-away purpose and feeling religious elation--are "rather typical [emphasis mine] of temporal lobe paroxysms." This, however, seems to me an unverified exaggeration. There are actually a variety of epilepsies with varied symptomology. Temporal lobe seizures are commonly displayed in bizarre, explosive episodes (Elliot, 1966); for example, a patient urinated into a fireplace, another climbed into a window-display of pastries--unaware of what they were doing. Visual aspects of seizures, unlike those of the classic NDE, consist of "dimness of vision, hemianopia [blindness in half of the visual field], blindness, crude flashes of light" (Elliot, 1966, p. 143). Furthermore, Schoonmaker (see Audette, 1979) is said to have collected to date 55 cases in which resuscitated NDE patients displayed flat EEGs. This clashes with the idea of temporal lobe paroxysms since they consist of deviant patterns of electrical activity in the brain, not the absence of such activity.

The temporal lobe is associated with memory, and seizures in that area often evoke memories. We are reminded of Penfield's (1975) experiments on electrostimulation of the temporal lobe which evoked vivid memories in epileptic patients. Penfield, however, underlines the mechanical nature of these electro-resuscitations of memories;

this, again, contrasts with the meaningful experience of meeting others in a transformative near-death experience.

Finally, what if some NDEs were accompanied by temporal lobe paroxysms? McHarg notes that such brain dysfunctions could conceivably facilitate paranormal experience. Perhaps McHarg's patients--those who were not near death--were catching glimpses of another world. Why must transworld ESP occur, if it does occur, only among those who are near death? There might be other conditions of eruption into the "other" world--natural, spontaneous, or even deliberately inducible.

Religious Expectations

Palmer (1978, p. 395) thinks that dying patients who believe in survival expect to be taken away by apparitions; hence their hallucinations may be generated by their expectations. But what about the "no-consent" cases, in which the patient departs under protest? This seems to indicate an external agency. And there are also cases where the patient has no religious beliefs and expects nothing in particular. On the whole, the empirical findings across the board so far indicate that religious beliefs influence the interpretation, not the content, of experiences of this nature.

Even more problematic is Palmer's assumption that believers expect a benign reception committee to greet them at the time of death. Actually, there is plenty of evidence from religious phenomenology indicating less sanguine anticipations. Christian and Hindu iconography and mythology are replete with intimations of

post-mortem horrors; in both traditions there are many paintings, illustrated manuscripts, and icons which depict the moment of death as a perilous passage, a frightful encounter with the forces of good and evil. From a psychological point of view, "religion" seems to encourage attitudes of collective guilt, enshrined in such doctrines as Original Sin. Certainly the ancient Greek Hades or the Babylonian Kurniga (land of no return) did not suggest any blithe expectations. According to the Tibetan Book of the Dead (Evans-Wentz, 1957), there is--as Moody, Ring, and others have found--a Being of Light awaiting us at death; but the religious Being of Light is awe-inspiring, terrifying, and most of us cannot bear the thought of facing it.

The Epicureans of Graeco-Roman antiquity happily embraced a form of materialism whose chief charm was a promise of extinction after death. For the Epicureans this seemed an improvement over the anticipated terrors of the after-world. One could indeed make a good case for an irrational basis to the rise of modern materialism as a form of flight from the tyranny of priests and their infernal visions of an after-life. The empirical pictures by and large, is more humane; happily, it clashes with the paranoid propensities of the religious imagination. I want to bring this point out because certain explanations of ND phenomena arouse resistance among the more rigidly rational types of modern man. There are historico-psychological reasons for this defensive armoring against everything "occult," "spiritual," or "supernatural."

Depersonalization

In one of their several papers on near-death experiences, Noyes and Kletti (1976) suggest a psychologically reductionistic explanation of the phenomena: that they are expressions of the "depersonalization syndrome" (feelings of unreality, emotional detachment, slowing of time, etc.). Let me begin with a comment on the title of this paper: "Depersonalization in the Face of Life-Threatening Danger: A Description." This seems to indicate that the authors did not set out to describe, but rather--as shown by the term "depersonalization" in the title--to place an interpretation on the phenomena. "Depersonalization" is hardly a descriptive term. The authors appear to have ruled out at the start any but a reductionistic explanation. However, this explanation is forced; depersonalization does not adequately characterize near-death phenomena. The main difficulty is that the two types of experience have opposite affects: depersonalization tends toward a flattening affect and shriveling mental capacities. It is essentially a negative phenomenon. In NDEs, on the other hand, we observe an opposite tendency toward heightened affect, expanded awareness, and a sense of profound and lasting significance.

In connection with one of their cases, Noyes and Kletti (1976) describe what they call the feeling of unreality. The subject reported that as she

> went deeper, reality vanished and visions, soft lights and an extreme feeling of calm acceptance passed over me like waves . . . . I was stronger because of being more whole,

> because I was no longer me as I had once known myself. I had a feeling of becoming part of a greater whole. . .(p. 22).

The authors are too hasty in forcing this vanishing of reality into the pathological slot of the depersonalization syndrome. Their tacit assumption seems to be that any deviation from standard, everyday reality must be pathological. The possibility that what was involved was the loss of only one sense of reality, and that another sense of reality was emerging does not seem to occur to Noyes and Kletti. The experience doesn't describe a loss in an exclusively negative sense; the loss also involved a gain, an opening into a larger reality. In fact, the enlarged sense of reality seems to have been in part a function of the loss of personal identity in the narrow sense. The subject seems not to have been depersonalized, but--more accurately--transpersonalized.

Schizoid Defense

Several psychologists have discussed the way the fear of death gives rise to defensive belief-systems involving the notion of a soul distinct and separable from the body, and able to survive death. According to this way of thinking, belief in an immortal principle of man is seen as a disguised alientation from the body--a schizoid solution to the brutal problems of being human. R. D. Laing (1965) is no ~~reductionist~~ reductionist, but he has provided trenchant descriptions of the "unembodied self": there is, according to Laing, an ~~the~~ existential process whereby a person, ~~in~~ the face of the oppression and terrors of existence, retreats to his inner self and creates a private citadel safe from the disasters of the external world. Could this help us

to explain near-death experiences? Laing writes: "In this position the individual experiences his self as being more or less divorced or detached from his body. The body is felt more as one object among others in the world than as the core of the individual's own being" (p. 69). This alienation from the body, which Laing sees as a strategy of desperation, tends to produce the schizoid personality. Schizophrenia, according to Laing, is only an extreme development of this basic defense strategy.

The schizoid tendency would be ~~aggraved~~ aggravated in a near-death crisis--and it is true that reports of NDEs are replete with accounts of alterations of the patient's body image such as those Laing describes. But in his account of the schizoid process everything culminates in sensations of inner deadness leading to a need to re-establish contact with the external world. This is the reverse of the near-death process, where we typically observe an enlivening of affect along with a readiness to let go of the external world.

Narcissism, Denial of Death, and Freudian Reductionism

Few people have written more searchingly on the denial of death than the psychoanalyst, Otto Rank. In his collection of essays, The Double, (1971) Rank examines the widespread phenomenon of the double as it appears in literature, folklore, and anthropology. The empirical cases that Rank looks at--e.g., those of de Maupassant and Goethe--are instances of autoscopy. In these, the percipient sees an apparition of himself in outer space. This, of course, is unlike the typical out-of-body experience associated with a near-death crisis in which the perceiving consciousness seems to be located

outside the body. Nevertheless, Rank generalizes from the autoscopic phenomena and chooses to see all constructs "of soul, higher worlds, and immortality" as projections of the narcissistic ego in the face of the "increasing reality-experience of man, who does not want to admit that death is everlasting annihilation" (p. 84). Rank is uncompromising in his Freudian reductionist judgment: "The idea of death therefore is denied by a duplication of the self incorporated in the shadow or in the reflected image." This makes short shrift of the highest human dreams. It is an outlook which inverts the classic Platonic formula: Plato's image-sensory world is now the <u>really</u> real world and the realm of ideas and ideals are reduced to images and shadows. Thanks to his commitment to Freudian dogma, Rank can speak confidently of "increasing reality-experience" as if the only real experiences were definable in terms of a single reality principle.

But there are two lines of reasoning that do not tally with Rank's conclusions. First, he describes the personality characteristics of those who generate "double" phenomena; they seem to be narcissists--persons with pathological fixations on themselves. If this is so, then "double" phenomena ought to be proportional to narcissistic behaviors. This is not an obviously true proposition. But we might be able to formulate such a claim in a testable way--for example, we could predict that persons who have the most gratifying NDEs also display a significant frequency of narcissistic traits. At the moment, however, there is no evidence in support of such a relationship.

The second difficulty with Freudian reductionism is the verid-

ical psi-component sometimes found in OBEs and NDEs. The psychiatrist Jan Ehrenwald (1978) follows Rank in claiming that OBEs "exhibit an assorted set of defenses and rationalizations aimed at warding off anxiety originating from the breakdown of the body image, from the threatening split or disorganization of the ego, and, in the last analysis, from the fear of death as a universal experience" (p. 161). Unlike Rank, however, Ehrenwald has thought and written a great deal about psi. He admits that some OBEs (and no doubt some NDEs) contain veridical information that strains the wish-fulfilling hypothesis; but this is not enough to persuade him that OBEs are not fundamentally delusive and the product of denial of death. As far as I can see, however, this is little more than the expression of a metaphysical dogma. After all, it is hard to see why, if an experience is merely a subjective wish-fulfillment, it should contain any verifiable, objective information. Moreover, many persons who have had OBEs report that their lives were significantly and permanently changed by these experiences (see, e.g., Osis and McCormack, 1978); such changes are not what we would expect to result from narcissistic illusions. And there is still another point about OBEs which is at odds with the Freudian interpretation. There are numerous cases in which the experient becomes frightened <u>after</u> finding himself out of the body; the fear of death results from the experience itself and causes its sudden termination. Thus the fear of death seems to <u>inhibit</u> the experience rather than give rise to it.

<u>The Birth Experience</u>

According to Stanislav Grof, a researcher into the therapeutic and theoretical implications of psychoactive chemicals, subjects