Speigelberg provides the point of interest: Why would anyone bother with these meaningless exercises, when money can be made? Because most people's mental system is often uncontrolled and it is for the ultimate *control* of the mental operating system that all these exercises are done. All the fasting, prayer, renunciation are designed to defeat those well-developed schemata, designed for the purpose of survival. If "we" are running the system, rather than "them" (the desires), we may well be able to direct the mind to new directions, directions which are now called for in our survival as a race.

# Religious and Mystical Experiences

When combined with other practices of traditional psychologies, meditation is intended to bring about a more "complete" consciousness. The full emergence of this experience is called the "mystical experience."

Upsets to Routine. A major precipitating event for many mystical experiences is a strong upset of normal routine: fasting; extreme physical exertion as in long-distance running; in more modern times, changes in jobs, in social situations, travel, and exposure to "shocks." It is in times of shocks and stresses that a person may be able to see himself for what he is, not what he hopes!

Deautomatization. One specific aim in both concentrative and openingup meditation is to dismantle the automatic selectivity of ordinary awareness. One aim of the esoteric traditions is to remove "blindness," to awaken a fresh perception. The word *enlightenment* or *illumination* is often used for progress in these disciplines. The psychological term is deautomatization, an undoing of the normal automatization of consciousness.

The Mystical Experience. Many meditation and spiritual exercises result in what are called mystical or religious experiences. They have occurred in many cultures and religious disciplines.

In his classic *The Varieties of Religious Experience*, William James (1917) cites the analysis and description by a Canadian psychiatrist of a mystical experience, which James called "cosmic consciousness."

I was walking in a state of quiet, almost passive enjoyment, not actually thinking, but letting ideas, images, and emotions flow of

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themselves, as it were, through my mind. All at once, without warning of any kind, I found myself wrapped in a flame-colored cloud. For an instant I thought of fire, an immense conflagration somewhere close by in the great city; the next, I knew that the fire was within myself. Directly afterward there came upon me a sense of exultation, an immense joyousness accompanied or immediately followed by an intellectual illumination impossible to describe. Among other things, I did not merely come to believe but I saw that the universe is not composed of dead matter, but is, on the contrary, a living Presence; 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; I saw that all men are immortal; that the cosmic order is such that without any peradventure all things work together for the good of each and all; that the foundation principle of the world, of all the worlds, is what we call love, and that the happiness of each and all is in the long run absolutely certain. The vision lasted a few seconds and was gone; but the memory of it and the sense of the reality of what it taught has remained during the quarter of a century which has since elapsed. I knew that what the vision showed was true. I attained to a point of view from which I saw that it must be true. That view, that conviction, I may say that consciousness, has never, even during periods of the deepest depression, been lost.

James (1890) defines four characteristics of the mystical experience.

- 1. *Unity or oneness*. Experience becomes comprehensive rather than fragmented; relationships between things normally separate are seen.
- 2. A sense of "realness." The person has the sensation that the relations between things he or she experiences are closer to truth than ordinary experiences.
- 3. *Ineffability*. The experience is said to be impossible to communicate in ordinary words.
- 4. Vividness and richness. Events take on a glow of freshness and clarity not present in ordinary consciousness.

stimuli from awareness. These reports suggest that psychological barrier structures were established as the subjects became more adept (Deikman, 1963, p. 338). EEG studies of Zen monks yielded similar results. The effect of a distracting stimulus, as measured by the disappearance of alpha rhythm, was most prominent in the novices, less prominent in those of intermediate training, and almost absent in the master (Kasamatsu & Hirai, 1963). It may be that the intensive long-term practice of meditation creates temporary stimulus barriers producing a functional state of sensory isolation.\* On the basis of sensory isolation experiments it would be expected that long-term deprivation (or decreased variability) of a particular class of stimulus "nutriment" would cause an alteration in those functions previously established to deal with that class of stimuli (Schultz, 1965, pp. 95–97; Solomon et al., 1961, pp. 226–237). These alterations seem to be a type of deautomatization, as defined earlier for example, the reported increased brightness of colors and the impairment of perceptual skills such as color discrimination (Zubeck et al., 1961). Thus, renunciation alone can be viewed as producing deautomatization. When combined with contemplative meditation, it produces a very powerful effect.

Finally, the more renunciation is achieved, the more the mystic is committed to his goal of Union or Enlightenment. His motivation necessarily increases, for having abandoned the world, he has no other hope of sustenance.

# Principal Features of the Mystic Experience

Granted that deautomatization takes place, it is necessary to explain five principal features of the mystic experience: (a) intense realness, (b) unusual sensations, (c) unity, (d) ineffability, and (e) trans-sensate phenomena.

#### Realness

It is assumed by those who have had a mystic experience, whether induced by years of meditation or by a single dose of LSD, that the truthfulness of the experience is attested to by its sense of realness. The criticism of skeptics is often met with the statement, "You have to ex-

<sup>\*</sup>It has been postulated by McReynolds (1960, p. 269) that a related stimulus barrier system may be operative in schizophrenia.

perience it yourself and then you will understand." This means that if one has the actual experience he will be convinced by its intense feeling of reality. "I know it was real because it was more real than my talking to you now." But "realness" is not evidence. Indeed, there are many clinical examples of variability in the intensity of the feeling of realness that is not correlated with corresponding variability in the reality. A dream may be so "real" as to carry conviction into the waking state, although its content may be bizarre beyond correspondence to this world or to any other. Psychosis is often preceded or accompanied by a sense that the world is less real than normally, sometimes that it is more real, or has a different reality. The phenomenon of depersonalization demonstrates the potential for an alteration in the sense of the realness of one's own person, although one's evidential self undergoes no change whatsoever. However, in the case of depersonalization, or of derealization, the distinction between what is external and what is internal is still clear. What changes is the quality of realness attached to those object representations. Thus it appears that (a) the feeling of realness represents a function distinct from that of reality judgment, although they usually operate in synchrony; (b) the feeling of realness is not inherent in sensations, per se; and (c) realness can be considered a quality function capable of displacement and therefore, of intensification, reduction, and transfer affecting all varieties of ideational and sensorial contents.\*

From a developmental point of view, it is clear that biological survival depends on a clear sense of what is palpable and what is not. The sense of reality necessarily becomes fused with the object world. When one considers that meditation combined with renunciation brings about a profound disruption of the subject's normal psychological relationship to the world, it becomes plausible that the practice of such mystic techniques would be associated with a significant alteration of the feeling of reality. The quality of reality formerly attached to objects becomes attached to the particular sensations and ideas that enter awareness during periods of perceptual and cognitive deautomatization. Stimuli of the inner world become invested with the feeling of reality ordinarily bestowed on objects. Through what might be termed "reality transfer," thoughts and images become real (Deikman, 1966, pp. 109–111).

<sup>\*</sup>Paul Federn's (1955, pp. 241–260) idea that the normal feeling of reality requires an adequate investment of energy (libido) in the ego boundary, points toward the notion of a quantity of "realness." Avery Weisman (1958) has developed and extended this idea, but prefers the more encompassing concept of "libidinal fields" to that of ego boundaries.

### Unusual Percepts

The sensations and ideation occurring during mystic deautomatization are often very unusual; they do not seem part of the continuum of everyday consciousness. "All at once, without warning of any kind, he found himself wrapped around as it were by a flame colored cloud" (Bucke, 1961, p. 8). Perceptions of encompassing light, infinite energy, ineffable visions, and incommunicable knowledge are remarkable in their seeming distinction from perceptions of the phenomena of the "natural world." According to mystics, these experiences are different because they pertain to a higher transcendent reality. What is perceived is said to come from another world, or at least another dimension. Although such a possibility cannot be ruled out, many of the phenomena can be understood as representing an unusual mode of perception, rather than an unusual external stimulus.

In the studies of experimental meditation already mentioned, two long-term subjects reported vivid instances of light and force. For example:

Shortly I began to sense motion and shifting of light and dark and this became stronger and stronger. Now when this happens it's happening not only in my vision but it's happening or it feels like a physical kind of thing. It's connected with feelings of attraction, expansion, absorption and suddenly my vision pinpointed on a particular place and . . . I was in the grip of a very powerful sensation and this became the center (Deikman, 1966b, p. 109).

This report suggests that the perception of motion and shifting light and darkness may have been the perception of the *movement* of attention among various psychic contents (whatever such "movement" might actually be). "Attraction," "expansion," "absorption," would thus reflect the dynamics of the effort to focus attention—successful focusing is experienced as being "in the grip of" a powerful force. Another example: "when the vase changes shape . . . I feel this in my body and particularly in my eyes . . . there is an actual kind of physical sensation as though something is moving there which recreates the shape of the vase" (Deikman, 1966b, p. 109). In this instance, the subject might have experienced the perception of a resynthesis taking place following deautomatization of the normal percept; that is, the percept of the vase

was being reconstructed outside of normal awareness and the *process* of reconstruction was perceived as a physical sensation. I have termed this hypothetical perceptual mode "sensory translation," defining it as the perception of psychic action (conflict, repression, problem solving, attentiveness, and so forth) via the relatively unstructured sensations of light, color, movement, force, sound, smell, or taste (Kris, 1952; Deikman, 1966b, pp. 108–109). This concept is related to Silberer's (1951) concept of hypnagogic phenomena but differs in its referents and genesis. In the hypnagogic state and in dreaming, a symbolic translation of psychic activity and ideas occurs. Although light, force, and movement may play a part in hypnagogic and dream constructions, the predominant percepts are complex visual, verbal, conceptual, and activity images. "Sensory translation" refers to the experience of nonverbal, simple, concrete perceptual equivalents of psychic action.\*

The concept of sensory translation offers an intriguing explanation for the ubiquitous use of light as a metaphor for mystic experience. It may not just be a metaphor. "Illumination" may be derived from an actual sensory experience occurring when in the cognitive act of unification, a liberation of energy takes place, or when a resolution of unconscious conflict occurs, permitting the experience of "peace," "presence," and the like. Liberated energy experienced as light may be the core sensory experience of mysticism.

If the hypothesis of sensory translation is correct, it presents the problem of why sensory translation comes into operation in any particular instance.

In general, it appears that sensory translation may occur when (a) heightened attention is directed to the sensory pathways, (b) controlled analytic thought is absent, and (c) the subject's attitude is one of receptivity to stimuli (openness instead of defensiveness or suspiciousness). Training in contemplative meditation is specifically directed toward attaining a state with those characteristics. Laski (1961) reports that spontaneous mystic experiences may occur during such diverse activ-

<sup>\*</sup>Somewhat related concepts, although extreme in scope, are those advanced by Michaux (1963, pp. 7–9), who suggests that the frequent experience of waves of vibrations in hallucinogenic drug states is the result of direct perception of the "brain waves" measured by the EEG; and by Leary (1964, pp. 330–339), who suggests that hallucinogenic drugs permit a "direct awareness of the processes which physicists and biochemists and neurologists measure," for example, electrons in orbit or the interaction of cells.

# Ineffability

Mystic experiences are ineffable, incapable of being expressed to another person. Although mystics sometimes write long accounts, they maintain that the experience cannot be communicated by words or by reference to similar experiences from ordinary life. They feel at a loss for appropriate words to communicate the intense realness, the unusual sensations, and the unity cognition already mentioned. However, a careful examination of mystic phenomena indicates that there are at least several types of experiences, all of which are "indescribable" but each of which differs substantially in content and formal characteristics. Error and confusion result when these several states of consciousness are lumped together as "the mystic experience" on the basis of their common characteristic of ineffability.

To begin with, one type of mystic experience cannot be communicated in words because it is probably based on primitive memories and related to fantasies of a preverbal (infantile) or nonverbal sensory experience.\* Certain mystical reports that speak of being blissfully enfolded, comforted, and bathed in the love of God are very suggestive of the prototypical "undifferentiated state," the union of infant and breast, emphasized by psychoanalytic explanations of mystical phenomena. Indeed, it seems highly plausible that such early memories and fantasies might be reexperienced as a consequence of (a) the regression in thought processes brought about by renunciation and contemplative meditation, and (b) the activation of infantile longings by the guiding religious promise that is, "that a benign deity would reward childlike surrender with permanent euphoria" (Moller, 1965, p. 127). In addition, the conditions of functional sensory isolation associated with mystic training may contribute to an increase in recall and vividness of such memories (Suraci, 1964).

A second type of mystical experience is equally ineffable but strikingly

\*Schactel (1959, p. 284) regards early childhood, beyond infancy, as unrememberable for structural reasons: "It is not merely the repression of a specific content, such as early sexual experience, that accounts for the general childhood amnesia; the biologically, culturally, and socially influenced process of memory organization results in the formation of categories (schemata) of memory which are not suitable vehicles to receive and reproduce experiences of the quality and intensity typical of early childhood." It would follow that verbal structures would likewise be "unsuitable."

different—namely, a revelation too complex to be verbalized. Such experiences are reported frequently by those who have drug-induced mystical experiences. In such states the subject has a revelation of the significance and interrelationships of many dimensions of life; he becomes aware of many levels of meaning simultaneously and "understands" the totality of existence. The question of whether such knowledge is actual or an illusion remains unanswered; however, if such a multileveled comprehension were to occur, it would be difficult—perhaps impossible—to express verbally. Ordinary language is structured to follow the logical development of one idea at a time and it might be quite inadequate to express an experience encompassing a large number of concepts simultaneously. William James suggested that "states of mystical intuition may be only very sudden and great extensions of the ordinary 'field of consciousness.' " He used the image of the vast reaches of a tidal flat exposed by the lowering of the water level (James, 1920, pp. 500-513). However, mystic revelation may be ineffable, not only because of the sudden broadening of consciousness that James suggests, but also because of a new "vertical" organization of concepts.\* For example, for a short while after reading The Decline and Fall of the Roman Empire, one may be aware of the immense vista of a civilization's history as Gibbon recreated it. That experience can hardly be conveyed except through the medium of the book itself, and to that extent it is ineffable, and a minor version of James's widened consciousness. Suppose one then read War and Peace and acquired Tolstoy's perspective of historical events and their determination by chance factors. Again, this is an experience hard to express without returning to the novel. Now suppose one could "see" not only each of these world views individually but also their parallel relationships to each other, and the cross connections between the individual conceptual structures. And then suppose one added to these conceptual strata the biochemical perspective expressed by The Fitness of the Environment (Henderson, 1958), a work which deals, among other things, with the unique and vital properties of the water molecule. Then the vertical interrelationships of all these extensive schemata might, indeed, be beyond verbal expression, beyond ordinary conceptual capacities—in other words, they would approach the ineffable.

<sup>\*</sup>A similar distinction concerning "vertical" listening to music is made by Ehrenzweig (1964, pp. 385–387).