AN APPRAISAL OF A PSYCHOLOGICAL APPROACH TO MEDITATION

by Stephen Kaplan

Meditation and the experiences attained from meditation often have been considered by many as experiences which only the experiencer is truly qualified to understand and to explain. Evelyn Underhill expresses this position in a passage on mysticism and the mystical experience—an experience which one may associate with the fruits of meditational practices: "Now in dealing with this [mysticism and mystical experiences], we are of course trying to describe from without that which can only adequately be described from within; which is as much to say that only mystics can really write about mysticism."[1] Scholarship on this subject—meditation, meditational experiences, or the closely related subject of mysticism—has produced detailed analyses of the material; but in the end some of the finest works still leave undecided the exact source of religious experiences in general and meditational experiences in particular. For example, in *The Varieties of Religious Experience,* William James wants to leave room for both the traditional religious answer and the more empirically scientifically based answer.

There are, however, psychological theories which do not hold the opinion that meditation and the experiences attained from meditation are comprehensible only to the subject of the experience. Modern psychology feels that it has the tools to explain the nature of the experience, and this explanation of the nature of the experience leads one to believe that it can explain the source of the experience.

It is my intent to examine some of the current psychological theories on the nature of meditation. This examination will lead to an understanding of the functions which meditation can serve and those which it is unsuited to serve. To understand the possible functions of meditation it will be necessary to discern what legitimately can be an

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object of knowledge received from these experiences. Nils Bjorn Kvastad expresses this issue:

> The central epistemological problem of mysticism is sometimes called "the problem of objective reference." It can be formulated in this way: Is the reality which the mystic allegedly contacts in his mystical experiences something objective, in the sense that it gives information about the world independent of the mystic's own mind? Or is it subjective, in the sense that it is exclusively produced by the mystic's own mind, without any interference from something outside? "Mind" is here understood to be the finite mind of man accessible to ordinary psychology, not some mystic's conception of an infinite mind somehow identical with the whole universe.[2]

After developing the legitimate epistemological domain of the meditator, I shall be able to develop the implications for religion from these modern psychological theories. Finally I will undertake a critical review of the presuppositions and the implications of these psychological theories.

Psychological-Scientific Explanations of Meditation

The term "meditation," as it is commonly used, has a tendency to encompass several constituent parts which are actually distinguishable from one another. In order to facilitate precision and avoid unnecessary confusion in the discussion of meditation I will divide meditation into three components—the mechanics of meditation, the altered state of consciousness which one attains in meditation, and the ensuing results of this process. To undertake the practice of meditating is not to achieve a state of meditation; nor is the achievement of a state of meditation sufficient ground to attain the final results which the meditator seeks. This threefold distinction has historical precedent in numerous religious systems. For example, it is reflected in Hinduism by the use of three terms: *yoga, samadhi,* and *mukti*—"the word *yoga* serves, in general, to designate any *ascetic technique* and any *method of meditation*";[3] *samadhi* refers to the state of consciousness in which the distinction between subject and object no longer prevails; and *mukti* is the final liberation which the Hindu seeks.

In reviewing the mechanics of meditation I will emphasize what Robert E. Ornstein in *On the Psychology of Meditation* refers to as concentrative meditation. Concentrative meditation consists of the attempt to focus one's attention upon a particular object to the exclusion of all other objects. Ornstein distinguishes this type of meditation from those in which one is attempting to open oneself up to the external environment. One may wish to question the validity of Ornstein's distinction. However, this distinction—and the questioning of

this distinction—is tangential to my discussion. What need be established here is the notion that meditation can take the form of concentrative meditation. My use of the term does not necessarily imply an agreement with Ornstein's distinction but only an attempt to represent his work accurately since it forms the foundation of my discussion of the mechanics of meditation.

Ornstein's contention that there is a concentrative type of meditation is well verified by the sources to which he refers. He cites examples such as sufism, Christian mysticism, various Buddhist schools, Yoga, and transcendental meditation. The evidence indicates that underlying all the diverse forms of meditation which these schools practice is an attempt to bring awareness of a single point. If one reviews the material on meditation, one can see that whether one is a Hindu who repeats the syllable Om, a Zen Buddhist whose attention is totally to be absorbed in a *koan,* or a Christian who is meditating upon the Lord's Prayer there is, underlying all of these diverse forms of meditation, the attempt to establish a concentrated attention upon the object of meditation.

It should be understood that the attempt to fix one's attention upon a single point is obviously the attempt to exclude all other thoughts or objects from consciousness. Concentrative meditation attempts to fix the individual's consciousness to one thought (or no thought) which thus gets continuously repeated in the effort to stave off divergent thoughts. This notion can be seen in the instructions given to the meditator in the *Upanishads:* "Turn the senses and the mind inward to the lotus of the heart. Meditate on Brahman with the help of the syllable OM. . . . As a charioteer holds back his restive horses so does a persevering aspirant hold back his mind."[4] To repeat a *mantra* or a prayer continuously without allowing other thoughts to enter one's consciousness, to consume one's awareness in a *koan,* or to fix one's gaze and one's attention upon an object is according to Ornstein "to recycle the same subroutine over and over again in the nervous system."[5] Ornstein's understanding of the psychological effect of fixing one's attention upon an object of meditation appears logically obvious even to the layman.

The effect of the process of fixing one's attention upon a single point—constantly repeating the same neuronal imput—appears to be the shutting off of one's awareness of the external world. This has been simulated by work done with images stabilized on the retina.[6] Normally one's retina is in constant movement. As a result of this movement an image presented to the retina does not naturally become fixed upon it. Experimentally, however, it is possible to stabilize an image on the retina. This can be done by attaching an image-

projecting machine to an individual such that the image which is projected mirrors the constant movement of the retina. When this is accomplished the image will disappear. Hence we get the effect that when attention is fixed upon one object, consciousness of that object will disappear.

It should be understood that in the case of the stabilization of an image on the retina the image does not disappear from the retina; rather it disappears from consciousness. This would be true for both the meditator and the subject of a physiological experiment. What happens is that the neuronal transmission from the optic nerve to the pertinent brain center is interrupted. Neuronal impulses can travel from the optic nerve to both the reticular system and the occipital lobe of the cerebral cortex. The occipital lobe of the cerebral cortex is associated with the function of consciously perceiving the sensory input. The reticular system has the function of either allowing the neuronal impulses to pass to the cerebral cortex so that they can be perceived or blocking those neuronal impulses which are unimportant for the organism. Identically repeated impulses, such as those produced by the stabilization of an image on the retina, fall into this latter category. When the reticular system inhibits the particular neuronal transmission, its inhibitory fibers send back, to the nerves leading from the eye, a neuronal impulse which does not permit further neuronal transmission. The transmission is inhibited because these fibers can block the passage of the neuronal chemicals necessary for the continuation of the impulse. Hence the image, appearing on the retina, will not reach the occipital lobe of the cerebral cortex and will not be perceived.

Ornstein believes that the knowledge obtained from the physiological understanding of the process involved in the stabilization of an image on the retina can be used to shed light upon the process involved in the practice of meditation. This is believed to be the case since both practices employ the same type of process—the repetition of a particular neuronal impulse. Ornstein concludes from this similarity that the results of both practices, which I will discuss subsequently, involve the same physiological process, and therefore they are remarkably similar in nature and in that to which they can refer epistemologically. He elaborates on both the process involved and the relationship between these two practices:

> It seems that a consequence of the structure of our central nervous system is that if awareness is restricted to one unchanging source of stimulation, a "turning off" of consciousness of the external world follows. . . . The interpretations of this experience of "darkness," of "blankout," of the "void," of

the disappearance of an image in the subject of a scientific experiment, would certainly differ: the subject of a physiological experiment would have extremely different expectations and ideas about his experience than a man who has sought this experience as part of his meditative practice. But the experiences themselves have essential similarities and are produced simply and through quite similar procedures.

So the practices of meditation . . . are probably not quite so exotic as those who seek the exotic and esoteric would like, and are not properly considered as exercises in reasoning or problem-solving . . . but are simply a matter of practical applied psychology.[7]

Ornstein's physiological understanding conflicts with many of the "esoteric" passages from traditional sources which describe this process of withdrawal from the external world as the result not of a physiological process but of a conscious effort taken by the mind, the will, the soul, or some other faculty which is not to be identified with the physiological processes of the brain. For example, the *Upanishads* say: "With the help of the mind and the intellect, keep the senses from attaching themselves to objects of pleasure."[8] Faculties such as the mind, the will, and the soul, which are understood in traditional terms to be responsible for the withdrawal of consciousness from the senses, often are understood also to be man's faculty for transcending himself or the faculty through which man receives transcendence. This special faculty is understood to be the "doorway" between two worlds—the finite world and the transcendent world. The function and importance of this faculty can be seen in Underhill's statement: "The existence of such a 'sense,' such an integral part of the complete human being, has been affirmed and dwelt upon not only by the mystics, but by seers and teachers of all times and creeds. . . . That there is an extreme point at which man's nature touches the Absolute: that his ground, or substance, his true being, is penetrated by the Divine Life which constitutes the underlying reality of things; this is the basis on which the whole mystic claim of possible union with God must rest."[9] Ornstein's explanation of the mechanics of meditation does not appeal to any faculty distinct from the autonomic physiological processes. His explanation seems to deal a serious blow to the existence of such a faculty. Thus this faculty whose existence was affirmed for the meditator, at least in part by its function in meditation, can no longer be affirmed in that way; hence its very existence becomes dubious and so also do the alleged objects of its knowledge. In other words, without the faculty by which man can know or reach the transcendent or be reached by it how could one affirm the existence of the transcendent?

A review of the material presented on the mechanics of meditation

is now necessary since Ornstein's work can be misleading. Ornstein seems to say that by using the physiological techniques which can produce the same subroutine over and over again in the nervous system, that is, a ganzfield and the stabilized image on the retina, the psychology and physiology of the meditator have been reproduced. But in actuality he does not say this. Neither does he say that to shut off visual perception one necessarily would shut off all perception of the external world. He says that this process leads to a decrease in awareness of the external world and this is analogous to the meditator's situation. It should be noted that in two separate studies of stabilized images on the retina—one by Roy M. Pritchard and the other by D. Lehmann, G. W. Beeler, and D. H. Fender—no mention is made that the subjects of the experiments lost anything but visual contact with the external world.[10] The reticular system does not have just one cutoff point but is connected to each of the sense organs. Thus to shut off one sense organ is not necessarily to shut off all awareness of the external world.

This reexamination of the material does not itself invalidate the psychological theory of meditation. Rather it indicates that Ornstein's material can serve only as a model in understanding the practice of meditation since it accounts for the shutting off of only one sense organ and not all sense organs. The meditator's claim which Ornstein must be able physiologically to substantiate, and wants to substantiate, is that all awareness of the external world is shut off. (The importance of substantiating this claim will become more evident in the next section.) Hence a theory which can account for the shutting off of all sense organs must be found. It must either extend Ornstein's findings or draw upon other psychological and physiological data.

In looking for an extended theory one can ask if a meditator can proceed to recycle the same neuronal subroutine over and over again in the nervous system from each sense organ. In other words, without the use of a machine can an individual, after having stabilized an image on his retina so that the image will not be transmitted to the cerebral cortex, then proceed to recycle the same auditory stimuli until that is no longer perceived? And then can one proceed to take similar steps with the other senses? Will one not find that in the effort to stabilize one sense modality the other already stabilized modalities have become unstabilized? If such is the case, as it logically and physiologically would appear to be, then an alternative to shutting off each sense organ one by one must be found in order to make sense out of the notion that awareness of the external world can be shut off.

An alternative would be to focus all of one's attention into one sense modality such that by shutting off that sense organ all consciousness

would be withdrawn from the external world. This process in effect would take away awareness which is usually associated with the other sense organs. This seems to be what Ornstein had in mind in proposing that consciousness of the external world could be shut off. This notion should be familiar also to anyone who has become so engrossed in reading a book that noises in the environment are no longer consciously perceived. The attempt to focus all of one's attention upon a single object or thought embodies the principles behind concentrative meditation.

There is evidence that the mechanics of focusing all of one's attention into one sense organ is the result of one of the functions of the reticular system. The reticular sytem, understood to be responsible for selective sensory attention, can send to the sense organs, via its efferent pathways, messages which inhibit not only the transmission of impulses along the lower sensory pathways leading to the reticular system and the cerebral cortex but also the reception of sensory stimuli by the sense organs. Conversely it can increase the potential for the perception of a particular type of sense data by increasing the capacity of a particular sense organ to receive sensory stimulation, allowing for the increased sensory input to be transmitted, and stimulating the particular section of the cortex associated with that sense organ to enable that section to handle the increase in neural transmissions. In Charles M. Butter's words:

> With regard to its [the reticular system's] influences on lower portions of the sensory pathways reticular stimulation can, for example, alter the excitability of ganglion cells in the retina.
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> Thus, the reticular system may control alertness not only by changing cortical excitability but also by gating, or selecting, sensory information. This selection of sensory information is probably accomplished through efferent pathways. Through this efferent mechanism, the reticular system can determine which messages are allowed through to higher levels of the sensory systems for further processing. . . . Through this process particular stimuli are at various times selected for further perceptual coding; others are not.[11]

This information on the selective mechanisms of the reticular system will be used to produce a model for understanding the process involved in the shutting off of all external awareness. It is now possible to see that sensory reception and perception can be lowered or eliminated from all but one sense organ while the reception and perception of stimuli from the remaining sense organ are heightened. If such a condition exists and one simultaneously proceeds to recycle, through the heightened sense modality, the same neural subroutine over and over again, perception of the external world is shut off since

perception of stimuli from the lone functioning sense organ is shut off. The process of shutting off this last sense organ mirrors the process explained earlier on the effects of stabilizing an image on the retina. In order to keep perception of the external world shut off this process—having attention focused entirely upon one sensory message—has to be maintained. Understood in this perspective, the knowledge gained from the experiments done on the stabilized image on the retina can show that the mechanism for the turning off of the external world by the meditator is, as Ornstein would suggest, not so esoteric.

The Altered State of Consciousness

It is now appropriate to explore the state of consciousness which is attained by the practice of meditation. Here the notion of a mystical experience comes into the picture. This experience can be expressed in numerous ways, for example, union with the Absolute, vision of God, experience of the Void. The point here is to see how modern psychological theories can account for the nature of this experience as it is described by the subjects of the experience.

Raymond Prince and Charles Savage conceive of the mystical state as a state of regression in the service of the ego, allowing the individual to become conscious of his entire past, or any part of it, since it can bring into consciousness all the memories, both conscious and unconscious, which are stored within the brain. They understand this state to be capable of positive and creative value. It can be "considered in the same class as certain creative experiences and certain types of psychotherapy; they are also close kin to the psychoses. . . . mystical states represent regressions to the very early periods of infancy."[12] In understanding the mystical state as a state of regression to an infantile state they also believe that they can account for the qualities which are attributed to the experience. The experience is ineffable since it returns the experiencer to a preverbal state; noetic since the experience to which it returns the person is of the breast, which has an undoubtable, primal, and immediate certainty to it; ecstatic since it recalls the ecstasy of nursing; and experienced as a state of union since the infantile state knows no clear bounds of demarcation between itself and an other, between subject and object. The infantile state is a state in which the ego has not yet developed. An explanation of the sense of immortality and eternity, which at times accompanies a mystical experience, can be derived by following the same approach as Prince and Savage have developed. From this perspective Louis Linn and Leo Schwarz say: "As for the intimations of immortality and glimpses into eternity of which the mystic speaks, they may also be a 'recollec-

tion,' namely, of the child's awakening from contented sleep into the ever present and loving mother."[13]

Another theory on the nature of the mystical experience is put forth by Alexander Maven in an essay entitled "The Mystic Union: A Suggested Biological Interpretation." He suggests that the mystical experience is a consciousness of the moment of conception which is somehow recorded in the brain and is reenacted by the activation of a particular brain state: "The analogies between these several descriptions of the mystic union and the description of the union of sperm and ovum are obvious and so close as to suggest the possibility that the experience of the mystic union in its various forms may be a 'playback' of a record of the mystic's biological conception as it might have been experienced, respectively, by the ovum, by the sperm, and by both together."[14]

Arthur Deikman believes that meditational experiences may be the "direct perception of the release of psychic energy."[15] In other words, meditational experiences may refer not to an unusual, divine, or transcendent source but rather to an unusual mode of perception. Meditational experiences are the result of a perception of neural processes that may not have been previously perceived because our attention has never before been cast upon them or because these processes may be produced only through the practices of meditation. The perception of the "release of psychic energy" in the form of unusual sensate phenomena, such as light, force, taste, sound, or smell, is called by Deikman "sensory translation."[16] Using the notion of the perception of the release of psychic processes and the forms in which they may appear, Deikman can proceed to explain the specific perceptions of the mystic. For example, he offers the following explanation for the "light" to which the mystics refer. Before reading Deikman's explanation one should understand that to experience light, external photic stimulation need not be present. Light may be experienced by pressing upon the eyelids, by electrically stimulating nerve centers associated with vision, or by the process of sensory translation. Thus Deikman says: "The concept of sensory translation offers an intriguing explanation for the ubiquitous use of light as a metaphor for mystic experience. It may not be just 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."[17]

Deikman also offers an intriguing explanation for the mystic's experience of unity. The unity which the mystic experiences is the unity found in the homogeneity of neural electrochemical activity. It is

perceived by a process of sensory translation in which consciousness is turned back upon itself—back upon the neural activity which is, in this view, the nature or essence of consciousness. Thus the explanation which Deikman and the others have offered on the nature of the mystical experience interprets this experience in terms of brain processes which are not receiving external stimuli.

Results of Meditational Practices

Meditation is practiced not only for the experience which one attains while meditating but also for the changes in attitude, behavior, and perception that ensue. It can be said that the inner calm which meditation produces itself produces benevolence and compassion for others. On the perceptual changes which are produced as a result of meditation Ornstein says: "An aim of meditation, and more generally of the disciplines involving meditation, is the removal of 'blindness,' or the illusion, and an 'awakening' of fresh perception . . . an 'opening up' of awareness, a 'deautomatization,' as Deikman calls it, which may be considered as involving a reduction of the processing of input."[18] Edward Conze makes the same point in discussing the aims of Buddhist meditation: "The task is to bring the process back to the initial point, before any 'superimpositions' have distorted the actual and initial (sense) datum. . . . As one accustoms oneself to disentangling sensory data from their hidden emotional and personal associations, they are placed into an emotional void, and seen almost as they are in themselves."[19]

In order to understand the idea that meditation can have the aftereffect of awakening our perceptions we must see that our normal perceptions are a revised version of what actually stimulates our sense organs. Our consciousness of an object is distorted by the limitations of the organ which receives the sensory stimuli. The stimuli are filtered through the network of brain processes which carry with them the memories of past perceptions. These memories influence our present perceptions. The anticipation of the present perception and one's present emotional framework add to the distortion of the original impulse. The object we consciously perceive is in part a self-creation.

The psychological theories which have been discussed agree that our perception is in part a personal construction and that meditation can reduce or eliminate the impositions which we place on the object. Ornstein and Deikman believe that meditation can break down the processes of automatization—the processes which eliminate "details and intermediate steps of awareness so that attention is freed for

other purposes."[20] The breaking down of these processes of automatization Deikman calls "deautomatization." Deautomatization allows one to be aware of what was previously screened out. It allows one to reinvest with awareness perceptions and actions previously eliminated from conscious attention, to see the world with new eyes—to be conscious of things which were previously sifted through the processes of automatization. Deautomatization has been compared in the psychological literature to the "removing of illusion, ignorance" in Hinduism, to the attainment of "right-mindedness" in Buddhism, and to the metaphor of "becoming like a mirror" in Zen Buddhism. Psychological theories such as Ornstein's and Deikman's which want to compare the notion of deautomatization with such notions as "right-mindedness" and "becoming like a mirror" are thus implying that the results which accrue to the meditator are the by-products of the physiological alterations of the practice of meditation. According to the psychological theories the worldly wisdom of the meditating sage is seen as not transcendentally inspired but merely opened to the panaroma before him.

Implications of the Psychological Explanation

Two religions, Hinduism and Buddhism, will be referred to in order to elicit the implications of the psychological position for religion. These religions are not the only religions which would be affected by an acceptance of the psychological position. However, since they directly base their doctrinal notions and their existential claims upon the experiences attained through meditation, they will be used as examples to indicate the implications of the psychological position. The significance of meditation for Buddhism is revealed in the story of the conception of Buddhism. The origin of Buddhism can be attributed to the meditational experiences which Siddhartha Gautama had under the Bodhi tree. The central doctrines of Buddhism are founded upon the experiences and insights attained from these meditational experiences. The *Upanishads,* revealed literature of Hinduism, continuously proclaim the significance of meditation for the life of the individual. Meditation is that which has enabled them to formulate their philosophical, religious, and psychological notions. These two passages, each summarizing an *Upanishad,* indicate the domain of influence which meditation has in Hindu thought: "The secret of immortality is to be found in purification of the heart, in meditation, in realization of the identity of the Self within and Brahman without," and "Meditation . . . By its means it is possible to realize the personal Brahman, who, in union with Maya, creates, pre-

serves and dissolves the universe, and likewise the impersonal Brahman, who transcends all forms of being, who eternally is, without attribute and without action."[21]

The psychological theories of meditation call into question the validity of such statements derived from meditational experiences as the aforegoing. In other words, they call into question one's statements about the experiencing, and hence the existence, of the Absolute, be it called Brahman or Śūnyatā. They call into question some of the alleged effects which such experiences are said to have on one's life, that is, the attainment of immortality and liberation. The new interpretation of meditational experiences also raises doubts about philosophical, psychological, and religious systems which are derived from notions formed from meditational experiences.

The psychological theories of meditation call these notions into question because they believe that what one is experiencing is confined to the brain and its processes. It should be recalled that according to these modern theories the practice of meditation aims at shutting off perception of the external world. The brain state which results when perception of the external world is shut off has been shown to be capable of accounting for the qualities of the meditational experience. Hence, since meditational practices shut off the external world and produce brain states which need no further stimulation from external and/or transcendent sources to yield the meditational experiences, the psychologist concludes that the meditator's experience is one derived from his own brain state. Thus, if so, then the experience cannot be understood as an experience of an infinite, subjectless-objectless Absolute. Therefore, in reference to the notion of Unity, Deikman says: "Unity, the idea and the experience that we are one with the world and with God, would thus constitute a valid perception insofar as it pertained to the nature of the thought process, but need not in itself be a correct perception of the external world."[22] Understanding meditation and meditational experiences in the light of the psychological theories leads one to conclude that the experiences attained in meditation are not those which can provide us with knowledge of the world beyond our own immediacy.

This conclusion presents particular problems for the Hindu who wants to make claims about realizing Brahman and understanding the nature of man and the world. Without understanding meditation as an experience which can lead beyond the immediacy of the individual the Hindu would find it difficult to assert that the world is an illusion, *māyā*. That the world is an illusion is based upon the conviction that Brahman is All. That Brahman is All is experientially substantiated by the meditational experiences of realizing Brahman. The possibility of

this experience is denied by the psychological theory of meditation.

The Hindu belief about man's nature also becomes questionable in the light of this psychological conclusion. The Hindu believes that man is ignorant of his true nature—Atman, Brahman. Man's ignorance, *āvidyā,* leads him into a problematic existence. This conception of man, which depicts the reason for man's problematic existence and the nature of the resolution of his problematic existence, is undermined if one could not experience man's true nature, Brahman. If one cannot possibly know Brahman, the Absolute, one cannot claim that man's problem arises out of an ignorance of Brahman which can be resolved by knowing Brahman.

The implications of the psychological theories for religion can be illuminated further by focusing upon a doctrinal dispute which exists within Mādhyamika Buddhism. This school of Buddhism holds that everything is *śūnyatā,* empty. The world is *śūnyatā.* The question which can be raised is: What does it mean to say that the world is *śūnyatā?* We have to decide whether *śūnyatā* refers to the emptiness of all of the things in the world or whether it refers not only to the emptiness of all things in the world but also to the Reality behind all things—the emptiness from which all things arise and on which all things are based. Frederick J. Streng capsulizes this dichotomy of the understanding of *śūnyatā:* "These interpretations suggest two extremes that are suggested by Nāgārjuna's expression: (1) emptiness seen as 'nothing-ness' or (2) as an absolute essence beyond every particular manifestation. The first alternative stresses the lack of a metaphysical monism or pluralism with the presupposition that the only alternative to 'something' (seen as a substantial reality) is 'nothing.' . . . The alternative is represented by T. R. V. Murti and S. Schayer, who see the Mādhyamika dialectic as only preparatory for the intuition of the reality behind the illusory phenomena."[23]

This question can be answered, within the Mādhyamika system, by appealing to the insights gained from meditation. If the psychological theory of meditation is applied to this case, its full implication can be seen. From this perspective it will be necessary to say that *śūnyatā* can refer to the emptiness only of all phenomenal things and not of the Reality behind all phenomenal things. This position reflects what the psychological theoreticians believe to be the legitimate epistemological domain of the meditator—consciousness of one's own brain processes during meditation and a reawakened perceptual intake following the practice of meditation. These two epistemological domains, as discussed, allow the meditator to make valid statements only about his own consciousness or the phenomenal world. From his reawakened perceptual consciousness, which is the result of deautomatization, a

meditator may be able to know that things are empty—that their static nature is only an illusion imposed upon one by the processes of automatization. The meditator has no legitimate grounds upon which to talk about a Reality behind the emptiness of all phenomenal things. Thus, accepting the psychological explanation of meditation, one is led to a phenomenological interpretation of Mādhyamika Buddhism and not a metaphysically monistic-absolutist position. The psychological theories of meditation have provided us with an enormous implication for Mādhyamika Buddhism, and this implication can be extrapolated for the reinterpretation of other religions.

A Critical Review of Modern Psychological Theories of Meditation

The modern psychological theories have tried to account for all aspects of meditation—the practice of meditation, the altered state of consciousness attained in meditation, and the results of meditation. These accounts have maintained a respectable degree of consideration for the traditional accounts of meditation. They have not tried to dismiss the entire enterprise as ridiculous. Instead they have accepted that meditation can be existentially and epistemologically valuable, although its value may be different from the values ascribed to it by the original meditational system. These accounts have not tried to deny the descriptions of the experience which the meditator attains; rather they have tried to make these experiences comprehensible from within the domain of their field of study. Neither has any attempt been made to deny that the practice of meditation is a complex process. However, the nature of this complex process has been assigned a different explanation by these modern theories.

I have unfolded the implications of these theories in explaining all of the aspects of meditation. The explanation of both the nature of the practice of meditation and the state attained in meditation has made dubious the concept of a self which can have transcendent dimensions or be reached by the transcendent. The ability to use meditation to claim legitimate epistemological knowledge about the Absolute also has been doubted. Thus any attempt to base a monistic-absolutist religion on the experiences of meditation has become problematic.

One now may think that it is possible to carry the implications of these theories a bit further and conclude that there are no longer any meditationally derived, experientially grounded metaphysical or epistemological reasons for considering that consciousness or mind is distinct from and not derivative of the physiological processes of the brain. I will pursue this line of thinking in reference to Advaita Ve-

danta since the connection between their theory of mind and meditation is clearly defined. A similar type of analysis can be carried on for all religious schools of thought which are developed around the practice of meditation and which hold to the notion that consciousness is neither identical to nor derivative of brain processes.

Vedanta believes that consciousness and the mind are neither identical to nor derivative of the physiological processes of the brain but rather consciousness partakes of the nature of Brahman. Brahman is *sat cit ananda* (being, consciousness, and bliss). As Surendranath Dasgupta says: "The Brahman is the immediate consciousness which shines as the self as well as the objects of cognition which the self knows. It is thus the essence of us all, the self. . . ."[24] This knowledge about the nature of Brahman—and hence the nature of the self and consciousness—is, for Sankara, derived from the *Upanishads.* To quote Dasgupta again: "Sankara does not try to prove philosophically the existence of the pure self as distinct from all other things, for he is satisfied in showing that the Upanishads described the pure self unattached to any kind of impurity as the ultimate truth."[25] The *Upanishads,* as previously noted, base their information on the revelations and insights attained through meditation.

One should be able now to see a problem: If one no longer can accept as epistemologically valid those statements derived from meditational experiences which pertain to the nature of Brahman, then a Vedantist, who bases his position on the knowledge derived from the meditational experiences revealed in the *Upanishads,* has no valid grounds upon which to say that consciousness is neither identical to nor derivative of brain processes. It appears that the Vedantist is forced to recognize that the meditator's consciousness, which was supposed to yield knowledge about Brahman and hence knowledge about the nature of consciousness itself, now can be explained only in terms of the physiology of the brain processes. It now appears that this major religious means for experientially asserting that consciousness is not a brain process—that mind is not identical to the brain—has collapsed. As Ornstein says, "it may be that the old distinctions between mind and body were drawn on the basis of a mere inability to attend to the relevant information."[26]

This last implication, which is drawn from the psychological theories of meditation and which can be found in the psychological literature, would have an enormous significance for psychology, philosophy, and religion if it were not the product of circular reasoning. The evidence from the psychological theories of meditation may lead one to a solution of the mind-body problem only because they presuppose the identity of the two in the formulation of their theories. In

other words, it is the fruits of that presupposition which later get extrapolated into the implications of the overcoming of the mind-body problem.

This presupposition can be seen to underlie the analysis of the two sections which described the practice and the state of meditation. Insofar as the third section, on the results of meditation, followed from the first two, it also presupposed the identity of mind and brain. The explanation of the mechanics of meditation claims that the process of shutting off perception of the external world is the result of the reticular system. Having provided an explanation for the mechanics of shutting off perception of the external world, the psychological position believes that it can dismiss the notion of a self, will, mind, soul—that entity which was traditionally believed to be causally responsible for the initiation of the meditational experience. As we also have seen, the dismissal of such a faculty leads to the unesoteric interpretation of meditation. However, this contention reflects the bias of materialism. To put this bias in other terms, the neurophysiological position in regard to this question identifies the material cause with the efficient cause. This position assumes that the material at hand—the neurological components—is both the substance to be causally altered and the causal agent of those alterations. It assumes that once the material substance of this process has been accounted for, one has accounted for the entirety of this process, which includes the efficient cause of this process. Thus any descriptions of the process in question, in addition to the neurological descriptions, can be dismissed as superfluous and incorrect.

As for the adequacy of this psychological perspective, it should be recalled that Ornstein's presentation was itself incomplete. To complete Ornstein's presentation a slight but significant alteration was made—the notion of attention was brought into the discussion. An explanation was needed to elucidate the focusing of all of one's attention. This explanation made it no longer possible to view the process of meditation as simply a passive physiological reaction to a given repetition of sensory stimuli. The significance of this alteration should be noted. If the process of meditation could be explained simply in terms of a passive physiological reaction, then the psychological position legitimately could claim that the only causal explanation needed to explicate the origination of the meditational experience would be the material cause as presented. If the experience of the meditator were the result of a purely passive physiological reaction, one would not have to concern oneself with the meditator as the efficient causal agent. There would be no place even to raise

the issue that there could be an efficient causal agent distinct from the material cause.

However, the meditator must take an active step in order to focus all his attention into one sense organ. From the psychological perspective no problems to their overall interpretation of the practice of meditation arose since the reticular system could execute this process of focusing all of one's attention into one sense organ. But with this alteration in mind—an alteration which no longer allows the process to be understood as a passive physiological response—a question can be raised: What is it that first initiates the process of focusing all of one's attention into one sense organ? That the process of focusing all of one's attention was started by the reticular system was never shown. All that was shown was that the reticular system necessarily was involved in the process of focusing one's attention into one sense organ. There is evidence that the cortex may be involved in initiating this process. It can send messages to the reticular system which then can induce the latter to perform its function of selective attention. As Butter says, "it appears, then, that the cortex provides a kind of physiological brake on arousal processes. Through this feedback loop, cortical mechanisms that mediate such complex processes as perception and thinking could modulate reticular activation. Thus, these mechanisms could maintain a level of arousal that is optimal for efficient functioning of these complex processes."[27]

In pursuing this line of thinking one now may ask whether the cortex is itself capable of deciding to focus one's attention into one sense organ or whether the cortex only carries to the reticular system, from a mind ontologically independent of the body, a message to perform this function. The possibility of a mind ontologically independent from the body, which can interact with the body, immediately raises all the arguments, pro and con, associated with those positions, be they dualistic or idealistic metaphysical monism. It is not my intention here to solve those problems but rather to point out that the psychological theories of meditation have not eliminated those problems. To the dismay of at least some of the psychological theoreticians, their theories do not form a system which is so closed around the physiology of the brain that they can exclude the possibility of a mind independent of the brain. As soon as one acknowledges that the practice of meditation involves the focusing of one's attention, then one can be led to see that a purely physiological description may be an adequate description but not the necessary description. One could hold the view that the basis of fixing one's attention lies in a mind independent from the brain. Maintaining such a view would not

contradict anything which the psychological theories of meditation have proven. It only would base its theory on a different presupposition.

The modern psychological analysis of the state of consciousness attained in meditation also is based upon the assumption of the identity of mind and brain. That analysis offers an explanation for the meditational state by describing what type of brain processes can account for the conscious experiences which the meditator undergoes. For example, the quality of unity is explained in terms of the homogeneity of the neural anatomy. This explanation of the experience of unity assumes that consciousness can be identified with particular brain processes exhibiting a homogeneity of substance. However, one need not accept the idea that consciousness is a brain process. That has not been proven. It only has been presupposed. Hence one cannot use the evidence from this aspect of the psychological theory of meditation to imply that there are no meditationally grounded, experientially based epistemological or metaphysical reasons for concluding that the mind is separate from the body.

It now should be obvious that the modern psychological theories on meditation do not provide a means to deny the meditational experience of the independence of the mind or consciousness from the brain. These theories have not proven the identity of the mind and the brain. They have presupposed it.

This presupposition also has been the essential factor in determining the implications drawn from the modern psychological theories. It has been crucial in the denial of a faculty such as the self, mind, or soul, which has transcendent dimensions or can be reached by the transcendent. The existence of such a faculty is denied on the basis that such a faculty is no longer needed to account for the processes involved in the practice of meditation. However, it has been established that only if one accepts that the mind and the brain are identical can one conclude that a faculty such as the soul is no longer needed in explaining the processes involved in meditation. In addition, since it now has been shown to be unnecessary to believe that the experiences attained in meditation are the experiences of one's own brain processes, one need not maintain the position that the only legitimate epistemological domain of the meditator is his brain processes. One again can presuppose the independence of the mind from the brain and thereby assert a faculty which has the potential to extend its epistemological domain to the Absolute. This allows one to recognize that the denial of a monistic-absolutist religion is only an outgrowth of the underlying presupposition of the modern psychological theories of meditation.

The psychological theories of meditation are not necessarily wrong. However, they are based upon a presupposition. If their presupposition is accepted or can be proven, then these theories can lead to a major reinterpretation of some religious doctrines. As they stand now, they at least shed valuable light upon some aspects of meditation.

NOTES

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22. Deikman (n. 17 above), p. 41.
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