

## MEDITATION AS META-THERAPY: HYPOTHESES TOWARD A PROPOSED FIFTH STATE OF CONSCIOUSNESS

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Our normal waking consciousness. . . is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different. We may go through life without suspecting their existence; but apply the requisite stimulus, and at a touch they are all there in all their completeness, definite types of mentality which somewhere have their field of application and adaptation. No account of the universe in its totality can be final which leaves these other forms of consciousness quite disregarded. How to regard them is the question-for they are so discontinuous *with* ordinary consciousness. . . . At any rate, they forbid a premature closing of our accounts with reality,

-William James, *The Varieties of the Religious Experience*

One year after I began my graduate training in clinical psychology, I started meditating regularly. As my training continued and as the effects of meditation started to be felt, I was struck by the similarity between changes I felt in myself, also observed in friends who were meditating, and those changes in personality and behavior that are the treatment goals of psychotherapy. My own experience concurs with a report by Herbert Benson (1969) at Harvard Medical School, who was using practitioners of transcendental meditation as subjects in a study of blood-pressure changes. Nineteen of the twenty volunteer subjects had previously used drugs ranging from marijuana and LSD to heroin: "All reported that they no longer took these drugs because drug-induced feelings became extremely distasteful as compared to those experienced during the practice of transcendental meditation,"

*similarities  
in changes*

A more formal survey of the results of transcendental meditation reported in the *Hospital Times*, May 1, 1970, found:

Increased energy and efficiency in performing any kind of work; increased calmness and decreased physical and mental tensions; increases in creativity, productivity, inventiveness, discrimination, intuitiveness and concentration; loss of a desire for or complete elimination of hallucinogenic or depressant drugs such as LSD, marijuana, amphetamines, tobacco, alcohol or coffee; attenuation of such symptoms as bad body posture, insomnia, high blood pressure; and better mobilization of body resources to combat various strenuous circumstances such as in accidents, sensory monotony, confined places, and cases of injury.

In the last three years I've had experience with a wide range of meditation techniques; transcendental meditation as taught by Maharishi Mahesh Yogi is the one I've practiced longest, am most thoroughly familiar with theoretically, and about which I hypothesize here. Transcendental meditation, or TM, like most yoga systems taught in the US, traces its roots back to the tradition of which Patanjali's *Yoga Sutras* is the classic statement. TM is a departure from the main body of contemporary Yogic practices. Maharishi (1969, p. 470) defines the technique as

*brief description of  
TM technique*

. . . turning the attention inward towards the subtler levels of a thought until the mind transcends the experience of the subtlest state of the thought and arrives at the source of thought...• A thought-impulse starts from the silent creative centre within, as a bubble starts from the bottom of the sea. As it rises, it becomes larger; arriving at the conscious level of the mind, it becomes large enough to be appreciated as a thought, and from there it turns into speech and action. Turning the attention inwards takes the mind from the experience of a thought at the conscious level to the finer states of the thought until the mind arrives at the source of thought.

The vehicle for transcending the level of conscious thought is a *mantra*, a key word or sound taken from Sanskrit and given to the practitioner of TM by a trained teacher who instructs him in its use at an initiation. TM is practiced twice a day for 15 to 20 minutes sitting in a comfortable position with the eyes closed. Unlike some other meditation systems with which I'm familiar, TM does not use concentration but rather "passive volition," as is used in Autogenic Feedback Training (Green et al., 1970) for control of the autonomic nervous system. Maharishi (p, 471) emphasizes that TM is neither a matter of contemplation nor of concentration. The

process of contemplation and concentration each hold the mind on the conscious thinking level, whereas transcendental meditation systematically takes the mind to the source of thought, the pure field of creative intelligence." Some, though not all, meditation systems emphasize the active and effortful control of the mind. In sharp contrast in technique with TM, for instance, is Satipatthana, "mindfulness" meditation; instructions to the meditator in Buddhaghosa's fifth-century treatise on dealing with thoughts include (Conze, 1969, p.83):

with teeth clenched and tongue pressed against the gums, he should by means of sheer mental effort hold back, crush and burn out the (offending) thought; in doing so, these evil and unwholesome ideas, bound up with greed, hate or delusion, will be forsaken and disappear; from their forsaking thought will become inwardly settled and calm, composed and concentrated.

The extent to which my analysis fits other meditation systems is an empirical question. There are systematic differences among meditation systems, but the consequences of these differences are unexplored. Charles Tart (1969) points out that the findings that Zen monks do not habituate to external stimuli during meditation, while practitioners of *raj yoga* do not even notice external stimuli, are behavioral reflections of the essence of the two philosophies—Zen mindfulness of, and yogic renunciation of, the sensory world. Different philosophical doctrines may well give rise to distinctive meditation techniques, which result in disparate psychological and behavioral outcomes. Or, they may all be pathways to the same ultimate destination. One necessary area of investigation is the comparative study of meditation techniques; the prime question is whether differences in technique are "real"—i.e., are psychophysiological consequences—or whether structurally different meditation techniques are functionally equivalent. My hypotheses are generated from experience with TM(1) but are framed in terms of meditation in general in the hope that they will be tested on a variety of different systems.

*consequences of  
differences in  
meditation systems  
unexplored*

*hypotheses framed  
for testing on a  
variety of systems*

I recommend TM to those interested in doing experimental studies of meditation. Though Zen is probably more commonly known, TM is the most widely practiced technique in the US, having upward of 40,000 Initiates. Any city or town with a large university or college is likely to have a Students' International Meditation Society, thus making samples readily available. Transcendental meditators are given uniform instruction, and practice on their own the same procedure no matter where they may be. SIMS is quite receptive to research proposals, and is establishing an institute to facilitate research much like the Zen Institutes in Japan (SIMS Institute for Advanced Study, IOIS Gayley Ave., Los Angeles, California 92024).

*meditation, meta-therapy and the fourth force*

I conceptualize meditation as a "meta-therapy": a procedure that accomplishes the major goals of conventional therapy and yet has as its end-state a change far beyond the scope of therapies, therapists, and most personality theorists—an altered state of consciousness. Just as behavior therapy and psychoanalysis proved to embody the visions of the first and second forces in psychology, and as the encounter group is the main vehicle for the third force, so may meditation be the main route for the newly emergent fourth force. In his introduction to the section on meditation in *Altered States of Consciousness*, Charles Tart notes the mental-health implications of the dramatic effects obtained with ordinary subjects practicing meditation, but notes that despite these results, systematic investigation has been nil. This theoretical ground-breaking expedition in mapping the mechanisms of meditation, a *terra incognita* in relationship to more familiar psychological terrain, is meant as an invitation and spur to thoroughgoing empirical studies.

*Hypothesis 1: Meditation can accomplish the same type of behavior change as does systematic desensitization, and (A) change will be less immediate with meditation than with desensitization (B) change will be more global with meditation than with desensitization.*

*brief description of "systematic desensitization"*

In 1934 Edmund Jacobson, a Chicago physician, proposed "a practical method of reducing the strains of modern living" in a best-selling book called *You Must Relax*. Jacobson later documented a number of cases (1964), covering the range of psychosomatic diseases, cured with his relaxation technique. This list is virtually duplicated by the survey of results of practicing transcendental meditation, and includes ulcers, asthma, insomnia, epilepsy, allergies, high blood pressure, migraine headaches, etc. Basing his technique on physiological studies of muscular tension, Dr. Jacobson propounded the principle—that relaxation is the direct physiological opposite of tension—which is founded the behavior therapy technique most closely resembling meditation. The technique is "systematic desensitization" as practiced by Joseph Wolpe and Arnold Lazarus (1966).

Systematic desensitization involves three principle operations: (1) Training in deep muscle relaxation. The method is taught as Jacobson designed it, and requires training the patient to relax in sequence the various muscle groups throughout the body. The training takes about six interviews, and the patient practices at home for two fifteen-minute periods a day. (2) The construction of an anxiety hierarchy

-a graded list of anxiety-eliciting stimuli. The hierarchy systematically orders the situations, events, thoughts, or feelings in any way distressing to the patient according to the degree of anxiety elicited by each. The patient is taught to visualize as vivid an image as possible for the items in the hierarchy. (3) Graduated pairing, through mental imagery, of anxiety-eliciting stimuli with the state of relaxation. Each item is presented in order, starting with the least anxiety-eliciting, and is repeated until all anxiety is eliminated, and the next item presented. The hierarchy is thus ascended from weakest to strongest stimuli until there is no anxiety elicited by any item.

Many investigators have found that Yoga and Zen meditation markedly reduce basal metabolism rates (see, for example, Anand et al., 1961; Kasamatsu and Hirai, 1966; Akishige, 1968). In studying the physiological effects of transcendental meditation, Wallace (1970) found a decrease in the volume of oxygen consumed to 20 percent below base rate; Allison (1965) found a reduction to 4-6 breaths/minute from a base rate of 12-14, rises in skin resistance up to 500 percent, reduced blood pressure (20 percent and more according to Datey et al., 1969), with cardiac output reduced 25 percent and muscle activity reduced to zero. All these measures taken together indicate a relaxation more profound than that of deep sleep.

With the inward turning of attention in meditation, the meditator becomes keenly aware of the random chaos characteristic of thoughts in the waking state. The train of thought is endless, stops nowhere, and has no destination. The meditator witnesses the flow of psychic events, plannings, paranoias, hopes, fantasies, memories, yearnings, decisions, indecisions, observations, fears, scheming, guilt, calculations, exaltations and on and on and on. The whole contents of the mind compose the meditator's "desensitization hierarchy." The contents of this hierarchy are organic to the life concerns of the meditator; they are drawn from the stored pool of his total experience. This hierarchy is inherently self-regulating: the organizing principle for item presentation is literally "what's on one's mind," and so optimal salience is guaranteed.

*whole content  
of mind as  
meditators  
"desensitization  
hierarchy"*

As in the desensitization paradigm, the "hierarchy" is presented coupled with the deep relaxation of deep meditation. Unlike the therapy, desensitization is not limited to those items which therapist and patient have identified as problematic, though those are certainly included, but extends to

*mental stance of  
meditator toward  
his thoughts*

all phases of experience. Apart from the element of physiological relaxation, the mental stance of the meditator toward his thoughts can be one of three sorts: (1) totally immersed in one's thoughts; (2) wholly oblivious to thought, having transcended it through use of mantra or by other means. This state is "pure consciousness" as Lesh (1970, p, 46) describes it: "There is no cognition, no dreaming, no hallucinations, no data input (via normal sensory modalities), no information processing, no conscious activity at all, just full waking attention." On the basis of physiological evidence, Wallace (1970a) proposes this transcendental state as "a fourth major state of consciousness." (3) The third is to be in this transcendental "fourth state" and simultaneously witness thought.

There are two ways in which meditation "desensitizes." In the first state the meditator is deeply relaxed. While exposed to a hierarchy, much as in conventional behavior therapy. In the third mental stance one is in the position which Maslow (1969, p, 57) discusses as the sense in which one "transcends" in psychotherapy: "This parallels the process in psychotherapy of simultaneously experiencing and of self-observing one's own experience in a kind of critical or editorial or detached and removed way so that one can criticize it, approve or disapprove of it and assume control, and therefore, the possibility of changing it exists." Maupin (1965, p. 144) in a study of Zen meditation, notes "subjectively felt benefits similar to those resulting from relaxation therapies were reported by several subjects." In meditation, relaxation is deep, the hierarchy of thoughts is innately experience-encompassing, self-observation conditions are such that inner feedback for behavior change is optimal. It is natural, global self-desensitization.

*Hypothesis 2: Meditation will reduce symptoms arising from anxiety in psychiatric disorders, especially "anxiety neurosis."*

*Hypothesis 3: Post-meditation performance in learning tasks will be significantly improved over pre-meditation performance.*

*Hypothesis 4: Post-meditation performance in perceptual tasks will be significantly improved over pre-meditation performance.*

*Hypothesis 5: Persons who have meditated extensively, compared to non-meditating controls, should be more accurate in perception of others.*

*Hypothesis 6: Persons who have meditated extensively, compared to non-meditating controls, should have less discrepancy between real and ideal self.*

The role of anxiety in psychological disorder is universally acknowledged by therapists. Angyal (1965, p. 72), for example, sees anxiety as "the crucial issue, the basic phenomenon in psychopathology. It is anxiety that creates, or marks, the parting of the ways between health and neurosis." Indeed: Cattell (1961) has based his system of diagnosis, prognosis, and therapy on the central variable of anxiety. Sullivan (1953) saw anxiety as the basis of the development of the self-system and severe anxiety as precluding clear comprehension of the immediate situation. Anxiety and consequent security operations, insofar as they are adaptive, are "of indispensable utility to each and everyone of us," says Sullivan (p. 374), but are "a powerful brake on personal and human progress." He gives as an illustration the process of "selective inattention":

*anxiety and  
selective  
inattention*

By selective inattention we fail to recognize the actual import of a good many things we see, hear, think, do, and say... Good observation and analysis of a mass of incidents selectively overlooked would expand the self-system, which usually controls the contents of awareness and the scope of the referential processes that are fully useful in communicating with others . . . selective inattention explains the faith we have in unnumbered prejudicial verbalisms, "rationalizations:" about ourselves and others ...

Recent research into the biochemistry of anxiety by Pitts (1969) at Washington University has shown that anxiety symptoms and attacks can be induced by infusions of lactate. Lactate is a normal product of cell metabolism, the end-product of the process by which cells break down glucose and extract energy from it. As muscles work, they convert glycogen to lactic acid, which diffuses into the bloodstream until eventually resynthesized into glucose in the liver. One property of the lactate ion is that it forms a chemical bond with calcium, which plays an important role in the transmission of nerve impulses. When calcium is injected along with lactate, there is a significant reduction in anxiety symptoms produced. Pitts theorizes that it is through interference with normal functioning of nerve impulses that excess lactate can cause anxiety symptoms.

*biochemistry  
and anxiety*

As part of his study of physiological effects of TM, Wallace (1970a) took a timed series of blood samples before, during,

and up to thirty minutes after meditation. He found that lactate decreases markedly at the beginning of meditation and continues to decrease during meditation; after meditation it remains at a low concentration. One subject showed a drop to 50 percent of his pre-meditation level, the other dropped 25-30 percent; both subjects maintained a reduced level to the end of the sampling period.

*meditation and  
perception of  
self and others*

Should further testing bear out these initial lab findings, the implications for control of anxiety are striking. TM would be a beneficial addition not only in the lives of "anxiety neurotics" or in other disorders where anxiety plays a role, but for "normals" as well. In the case of the former, anxiety attacks would abate. For the latter, insofar as selective inattention would be reduced, to that degree would we *not* "fail to recognize the actual import of a good many things we see, hear, think, do and say." As a consequence, perception of and communications with others should be improved, and self-perception should likewise become more realistic. Some preliminary findings support the idea that meditation improves self-perception; one study of long-time Zen meditators reported by Akishige (1968) found no difference between their self-estimate of ideal self and actual self. Maupin (1965) failed to find any relationship between attention functions among the college students he trained in zazen, but felt that this failure was due to their inexperience and discomfort in the face of "strange inner experience."

*meditation and  
empathy*

Lesh (1970) trained counseling students in zazen and found their performance on an empathy measure significantly better than students who did not meditate; he suggests that a therapist who could achieve the level of detached awareness attained in zazen during a counseling session would "more fully understand and appreciate what the client is saying and feeling." Lesh interprets his results in the regression-in-the-service-of-the-ego model, and attributes his findings to the effects of experiencing the primary process mode during zazen. He notes, however, that all subjects, including controls, were students in a class where the instructor caused them to get increasingly tense and angry as the term progressed. The zazen sessions were held once daily; as it happened, this was immediately after the tension-provoking class. In view of the possible efficacy of meditation in reducing anxiety, the improved empathy finding could alternatively be interpreted as the result of anxiety-reduction. No measures of anxiety were administered.

Another area in which meditation-reduced anxiety would be significant is learning. It is axiomatic that high anxiety levels inhibit learning ability. Brown (1970) of the Stanford Research Institute reports that while working in biofeedback control of autonomic functions-an extremely subtle learning situation-he found the task strenuous. During this period he began the regular practice of transcendental meditation. Experimenting with the relationship between TM and control of autonomic functions, he discovered that the learning task, such as emitting and maintaining any EEG brain-wave rhythm he chose, was significantly facilitated by practicing TM immediately prior to the training sessions. There is the possibility that apart from facilitation effects due to reduced anxiety, simply the practice gained with meditation in working at the subtler levels of the mind aids mastery in the specific learning task of brain-wave control-but that is an empirical question.

*Hypothesis 7: Meditators Will Have More Energy and Need Less Sleep Compared to Their Energy and Sleep Levels Before Beginning to Meditate.*

*Hypothesis 8: Several Years of Meditation Will Produce Deep Level Personality Changes in the Direction of "Mental Health."*

*Hypothesis 9: Several Years of Meditation Will Produce Changes in Musculature and Posture in the Direction of "Improvement."*

*Hypothesis 10; Meditators Will Tend to Be More Resistant to Stress-Induced Fatigue than Will Non-Meditators.*

Freud believed in the "mysterious leap from mind to body," and based his early theory of anxiety on the transformation of physical into mental. But though he saw the brain and nervous system as "the bodily organ and scene of action" of mental life he saw no means of connecting acts of consciousness with their physiological substrata. He despaired of finding systematic connections between consciousness and the nervous system (1938, p. 44): "Everything that lies between these two terminal points is unknown to us and, so far as we are aware, there is no direct relation between them." From Freud on, mainline psychoanalytic practice if not thinking, has focused on the intra-psychic to the exclusion of the body.

Beginning with Wilhelm Reich (1948), refocusing attention on the patient's "character armor" as revealed in his posture, movements, facial expressions, etc., a growing therapeutic school has begun to chart and use the direct relations between mind and body. With the contributions of Lowen's (1958) bioenergetic analysis, Perls' (1969) gestalt therapy, Pessó's psychomotor therapy, and others, that leap has become increasingly less mysterious. The theoretical underpinning and key to the mind-body leap of these approaches is summarized in the "psychophysiological principle" (Green et al., 1970):

*"psycho-physiological principle"*

Every change in the physiological state is accompanied by an appropriate change in the mental-emotional state, and conversely, every change in the mental-emotional state, conscious or unconscious, is accompanied by an appropriate change in the physiological state.

*significance of "unstressing"*

In meditation, the psychophysiological principle can be used to understand the significance of "unstressing," a term used by practitioners of TM. Unstressing takes the form during meditation of completely involuntary, unintended, and spontaneous muscular-skeletal movements and proprioceptive sensations: momentary or repeated twitches, spasms, gasps, tingling, tics, jerking, swaying, pains, shaking, aches, internal pressures, headaches, weeping, laughter, etc. The experience covers the range from extreme pleasure to acute distress." In TM, unstressing is gradual during regular daily meditation, so that it is not always discernible. During special extended meditation sessions where one meditates throughout much of the day, more extreme forms 'Of unstressing can occur. When Maupin taught zazen to a group of college students as part of an experiment, they mentioned to him the emergence of "hallucinoid feelings, muscle tension, sexual excitement, and intense sadness" (1965, p. 145). Because of the unpredictable nature of unstressing, meditators who are unprepared for it, or who are in the midst of others who do not understand the process, can become agitated when it occurs in disturbing forms. For this reason teachers of TM and other systems recommend day-long meditation only in supervised and secluded situations. Psychiatric clinics are beginning to get new patients who have been meditating on their own all day for many days, and are brought in by others who can't understand and are disturbed by behavior

*discussion of "unstressing"*

2 Vivid and detailed first-person accounts of unstressing are reported in *Guruvani* magazine by students of the ashtanga yoga system of Swami Muktananda. An elaborate and detailed description of these involuntary movements in Taoist meditation is given in Charles Luk's *Secrets of Chinese Meditation* (Luk, 1966)

changes they see; the dynamics of this influx are parallel to the continuing wave of "bad trips" due to drugs. As with acute drug cases, the psychiatric intervention may worsen and prolong distress rather than alleviate it, while someone familiar with meditation can reassure the person and alleviate the crisis without recourse to the paraphernalia of psychiatry.

The fundamental assumption in understanding the function of unstressings, as in psychoanalytic thought, that all past experience leaves its mark on present behavior. In accord with the psychophysiological principle, mental-emotional events are paralleled by physiological changes, and so the organism is shaped by the events of a lifetime. The nervous system is the repository of all experiences of emotional strain, pleasure, fatigue, tensions, stresses, etc., whether of "physical" or "mental" origin. It is through reading extensions of the nervous system such as musculature that the gestalt or bioenergetic or psychomotor therapist gets to the major issues in a person's life-literally, to what has shaped him-and begins the work of freeing the person from the grip of the past events that have left that particular mark.

**I**n meditation this same process of liberating the nervous system from past stresses is undergone without effort, volition, or intention. As the meditator reaches a level of profound relaxation and pure awareness with no thoughts, a wide range of kinesthetic sensations, vague feelings, or any of the array of psychic events can be triggered at random. Autokines-  
sias may be accompanied by thoughts or may occur alone; or one may notice only thoughts but no movement, as is the case in the following passage, in which Herrigel (1953, p. 56) describes this process in zazen:

This exquisite state of unconcerned immersion in oneself is not, unfortunately, of long duration. It is liable to be disturbed from the inside. As though sprung from nowhere, moods, feelings, desires, worries and even thoughts incontinently rise up, in a meaningless jumble . . .

If attention is turned to scanning the body when thoughts alone are experienced, underlying proprioceptive kinesthetic sensations invariably will be noticed.

Lerner (1967) has proposed that kinesthetic sensations of this sort are, in fact, the stuff dreams are made of. In one of Dement and Kleitman's (1957) first studies, they noticed very fine digital movements in sleeping Subjects.

*«the stuff  
dreams are  
made of»*

*kinesthetic  
fantasy and  
physical  
immobility*

Wolpert (1960), following up on this lead, compared dream reports with muscle-potential activity and found that the fine movements executed, described as "slight, abortive muscular stirrings," were appropriate to the content of the dreams. Conceptualizing dreams as "kinesthetic fantasy" (i.e., fantasy in the kinesthetic modality, as opposed, say, to the visual or auditory), Lerner points out that in sleep, gross body movements build up to a peak just before the onset of the dream state, terminate abruptly with the onset of dreaming, and reappear when the dream REMs cease. This pattern is just the reverse of fine muscular stirrings, which occur primarily during dreaming but are negligible other times (or which may fade into the background when gross movements are present). Dement and Wolpert (1958) report that gross body movements indicate an absence of dreams. On this basis, Lerner suggests that gross, overt motor activity is antithetical to kinesthetic fantasy, and that the key factor in the facilitation of kinesthetic fantasy is physical immobility.

Dement (1960) has shown that persons deprived of dream-time in sleep exhibit symptoms of personality disorganization, including heightened levels of tension, anxiety, and irritability, difficulty in concentrating, impaired motor coordination, and so on. They also make increasingly frequent efforts to dream; when allowed to do so their total dream time rose significantly and stayed high until the time lost was made up. Thus dreaming is in some way a vital function for the maintenance of personality organization. Lerner suggests that "one may sleep in order to dream," and proposes (p. 98)

that body image forms the basis of ego and that in order to maintain the coherence of body image and thus of personality organization, kinesthetic activity must be supplemented by the sort of kinesthetic fantasy which takes place in and is facilitated by the dreaming state.

Lerner assumes that the crucial restorative effects of dreaming can occur only in sleep because only then is the normal person in a "relatively profound, sustained, and pervasive state of physiological immobilization." This affords the opportunity to engage in kinesthetic fantasy that is fully elaborated, as opposed to the truncated kinesthetic fantasy that fleetingly may occur in the waking state. Wallace (1970b) in his study of TM found evidence that the decrease in metabolic rate during meditation is in some ways *more* profound a physiological immobilization than that of sleep. In their EEG study of zazen, Kasamatsu and Hirai (1966) found the cerebral excitatory level gradually lowered as it is in sleep,

but in a way fundamentally distinct from the sleep pattern. Thus meditation would also qualify as a time when kinesthetic fantasy, with all its beneficial effects, could occur: the basic pre-condition of physiological immobilization prevails. But because the meditator maintains awareness during the process, his experience can encompass the kinesthetic byplay as well as any accompanying thoughts or fantasies; and so he reports "unstressing." The dreamer, in part because of a Western cultural tendency to ignore kinesthetic experience, recalls mainly visual and auditory elements of the same process. Another factor distinguishing the experience of dreaming from unstressing is that rapid eye movements—an indicator of dreaming—while themselves kinesthetic, provide an unstructured visual stimulus which the dreamer shapes into meaningful configurations in dream construction; in meditation there are no REMs (Wallace, 1970b).

*similarities  
and differences  
between dreaming  
and meditation*

I propose that unstressing serves the same psychological function for the meditator as do dreams for the dreamer. In keeping with the psychophysiological principle, each movement in unstressing signals the release of a stored mental-emotional state, event, or impression, and each such psychic event indicates the release of stress on the level of nerve-and-muscle. That is, each kinesthetic event is paralleled by a psychic one, and each psychic event by a kinesthetic one. Just as Wolpert (1960) found that muscle movements in dreaming are systematically related to the content of dreams, and as Freud (1956) noted that the content of dreams may derive from a residue of that day's events or from events in the dreamer's remote past, so with unstressing: movements and thoughts are related to each other and to past events.

*psychological  
function of  
dreams and  
of "unstressing"  
in meditation*

Lowen (1957, p. 14) analyzes the psychic and somatic functions in terms of a unitary system and notes that "the sum total of the muscular tensions seen as a gestalt .• is seen on the psychic level as character." Lowen's bioenergetic therapy assumes that every emotional disturbance involves a block in the flow of energy to the organs of discharge. When the therapist facilitates the discharge of blocked energy on the bodily level, the patient relives the situation that induced the block. As Reich (1942, p. 267) put it, "dissolution of a muscular rigidity not only liberates vegetative energy, but, in addition, also brings back into memory the very infantile situation in which the repression had taken effect." According to Lowen (p. 103), every bioenergetic change acts on two levels simultaneously: "on the somatic level there is an

increase in motility, coordination and control; on the psychic level there is a reorganization of thinking and attitudes,"

The same relationship between psyche and soma obtains with unstraining in meditation, and the same results. The following self-report from a woman in her late forties who practices TM will illustrate:

Last night I started to meditate . . . and all of a sudden I felt small, like my head only reached the tabletop. My mother came down and took my hand and I had feelings of intense pleasure. And then I had an overwhelming sadness and I tried to see my mother's face and couldn't, it was all foggy. And then I realized this total sadness and started weeping profusely and an overwhelming sense of panic came, and I repeatedly wanted to see her face and couldn't, and I started to shake and my bladder started to empty as it does in a little girl, and that brought me out of meditation. I remembered violently that my mother was dead and felt this sadness and then it lessened and ever since then I've been having vivid memories of things I hadn't been able to remember since her death. I wasn't seeing that child-I *was* that child. I've been living every emotion of it. Since back then it's the first time I've felt that happy feeling I had with my mother. Since then I felt this terrible sense of loss and cried several times. I didn't when my mother died. I feel undone inside. I'm geared to sad memories of my childhood and all these happy ones are flooding in now. Today when I saw my daughters' faces I really saw them like I hadn't ever before, and they knew, they responded. I'm seeing every person as though for the first time they're 3-dimensional instead of 2-dimensional. I've always been very controlled, I don't think I've given myself permission to react before. Now I don't feel these are people, but playmates. It's a good feeling. I didn't know I wasn't feeling anything before, but I know from now I didn't. It's like all the grey cardboard figures came to life. Had you asked yesterday I would have felt my perception was excellent, but I've been perceiving people through learned responses, like a nurse, registering skin tone, calcium deposits on teeth, but not *seeing* them. All that is different now,

*body image and  
tension release*

Lerner proposes that the positive benefits of dreams are due to their role in maintaining coherence of body image. I suggest that their function on another level is in the release of tensions accruing from the past life events in which they originated. The tensions may be unnoticed in their occurrence -as when the auditory system registers the noise of a city to which one has become habituated-or they may be barely noticed and soon forgotten-as in the case of a flinch re-

sponse to a flying object-or they may be of major import as part of an emotional crisis-as when one restrains oneself from hitting an opponent in an argument. It is this last variety of tension-inducers that therapists like Reich and Lowen traditionally deal with; the body expels the whole range in dreams during sleep and in unstressing during meditation, as in the case above.

Abreaction in unstressing can occur wholly on the body level. A twenty-two-year-old girl reports:

I had very crooked teeth when I was a child. My teeth are so big for my jaw they had to pull eight teeth. When my second teeth came in I started to notice my jaws didn't match. For several months when I meditated I would feel my jaw move around, always pulling toward the right. It got more and more intense and then the other day there was a very strong and painful pull, a large "Crack!" and my jaw moved over. When it happened I was so amazed, it was so intense, but I didn't stop meditating. I knew what was happening. When I looked in the mirror, my teeth were aligned. Now my mouth muscles are more relaxed; when I smile now it feels different.

Body image "exists" on the level of mind; kinesthesia on the level of body. But body and mind are a duality, not opposites. When the organism is impinged upon by tension-inducing events during the day, the work it must do to maintain its functional integrity is to "cast out" those tensions. This is what is happening in dreaming and unstressing: the organism is maintaining itself as an integrated unit by readjusting to a state of normality parts that have become misshapen and dysfunctional during waking activities. The psychological meaning of this process is that coherent body image is maintained or restored and thus ego-wholeness preserved.

*body and mind  
a duality, not  
opposites*

What Luthe (1969) says of autogenic training applies equally to meditation: that it can enable natural mechanisms in the body to regain their "otherwise restricted capacity for self-regulatory normalization." Stress release is one of these mechanisms. Luthe (p. 318) says

the long-range effects resulting from the practice of Autogenic Training are manifold and depend largely on the psychophysiological constellation of the individual. •.. Briefly one could say that a gradual process of multidimensional optimization develops. This process is reflected in psychodynamic changes which can be verified by physiologic measurements and [psychological] tests.

*verifiable  
psychodynamic  
changes*

The same is true for meditation.

*Hypothesis 11: A fifth major state of consciousness exists which is a fusion of the fourth state with the waking, sleeping, and dreaming states but has properties distinct from the first four states.*

*Hypothesis 12: People in the fifth state do not tend to habituate in daily experience during the waking state.*

*Hypothesis 13: People in the fifth state will experience in meditation minimal unstressng and preponderant pure awareness: unstressng will be derivative of "day-residue" from activities prior to the meditation session.*

*EEG patterns  
and meditation*

In reporting on operant control of the EEG alpha rhythm, Kamiya (1966) mentions that the state of consciousness associated with alpha is one of "a general calming down of the mind" in which thoughts interfere with maintenance of the state. He also reports that his best subjects tend to be people that have practiced meditation in one form or another. An EEG study of Zen meditation (Kasamatsu and Hirai, 1969) found that production of alpha was associated with proficiency at meditation and with number of years practicing. Some very proficient subjects, who had been practicing zazen for more than twenty years, showed heavy alpha production which gave way to theta trains. Yogis practicing *raj yoga* who were tested in India (Anand et al., 1961) also showed the alpha rhythm. Wallace's (1970a) study of TM found that during meditation alpha-wave activity predominates; some subjects showed EEG patterns similar to those found in twenty-year practitioners of zazen. Taking this finding in conjunction with those of lowered basal metabolism, lowered lactate level, etc., Wallace (1970b) proposes the existence of a "fourth major state of consciousness"-that special psychophysiological state of rest and pure awareness one can reach in meditation. Tart (1970, p. 37) refers to the phenomenological experience of this state as "the Void," where the person's "identity is potentiality, he's aware of everything and nothing, his mind is absolutely quiet, he's out of time, out of space.... " A Tibetan description of the same state is given by Evans-Wentz (1969, p. 211):

In its true state, mind is naked, immaculate; not made of anything, being of the Voidness; clear, vacuous, without duality, transparent; timeless, uncompounded, unimpeded, colourless; not realizable as a separate thing, but as the unity

of all things, yet not composed of them; of one taste, and transcendent over differentiation.

Kasamatsu and Hirai (1966) describe this state of restful awareness as a "special state of consciousness in which the cortical excitatory level becomes lower than in ordinary wakefulness but is not lowered as in sleep"; they add, "and yet outer and inner stimulus is precisely perceived with steady responsiveness." This "steady responsiveness" among the Zen meditators means that alpha blocking during meditation is less susceptible to habituation to sensory stimuli than in the ordinary waking state. Wallace (1970b) also found no habituation with TM. Kasamatsu and Hirai report (1969, p. 449) :

*responsiveness  
without  
disturbance*

In this state of mind one cannot be affected by either external or internal stimulus, nevertheless he is able to respond to it. He perceives the object, responds to it, and yet is never disturbed by it. Each stimulus is accepted as stimulus itself and treated as such. One Zen master described such a state of mind as that of noticing every person one sees on the street but of not looking back with emotional curiosity.

In commenting on these findings, Tart (1969) points out that ordinarily, people "substitute abstract cognitive patterns for the raw sensory experience." That is, people "habituate" to their surroundings—one doesn't notice the places passed by daily on the way to work save in a stereotyped manner. Schachtel (1966) describes this natural tendency of people to habituate, i.e., not to see or attend to the world surrounding them—including other people—except in terms of set perceptual patterns; the rationale for the Rorschach test is in large part built upon the twin assumptions of habituation in everyday life and of the power to break up these perceptual sets inherent in the uniqueness of the blots as stimuli. Fromm (1960) sees this phenomenon of habituation to self and to others as essentially opposite to a psychological definition of "enlightenment":

*discussion of  
habituation*

• . . it is a state in which the person is completely tuned to the reality outside and inside of him, a state in which he is fully aware of it and fully grasps it. *He* is aware of it—that is, not his brain nor any other part of his organism, but he, the whole man. He is aware of *it*; not as an object over there which he grasps with his thought, but *it*, the flower, the dog, the man, in its or his full reality. He who awakes is open and responsive to the world, and he can be open and responsive because he has given up holding on to himself as a thing, and

*a psychological  
definition of  
"enlightenment"*

thus has become empty and ready to receive. To be enlightened means "full awakening of the total personality to reality."

*meditative  
exercises and  
"autonomic"  
body functions*

A number of alpha studies report the occurrence of prominent alpha activity in subjects' normal waking state: Anand et al, found it in four practitioners of *raj yoga*; Kasamatsu and Hirai noticed persistent alpha even after the end of Zen meditation; Wallace (1970b) reports that with TM, after meditation ended, regular alpha activity continued while eyes were closed, and irregular alpha continued after eyes were open. The more one produces alpha, the easier it becomes; Kamiya (1970) observes that every subject who produced a high percentage of alpha rhythm in a training session with eyes open was a natural high producer with eyes closed. Wallace (1970a) presents evidence that other types of "autonomic" body functions apart from alpha production can be controlled or changed through TM, and that the effects of these changes persist after meditation has ended and into the waking state. This has been demonstrated, for example, for lowering lactate level and blood pressure (Wallace, 1970a), and may be the psychophysiological ground for reports of an "afterglow" effect in the waking state after meditation is over. Citing a range of psychophysiological evidence, Luthe (1969) concludes that the regular practice of autogenic meditative exercises brings about "certain functional changes in the trainee's brain" of a lasting nature.

*prototypic  
experience of  
fifth state  
Of consciousness*

It seems that the more meditation is practiced, the easier it becomes to produce and maintain the alpha rhythm and concomitant physiological changes that Wallace calls the "fourth major state of consciousness." These psychophysiological changes observed in meditation—the fourth state—can become infused into the waking activities of the meditator to produce a "fifth state" of consciousness which is on the psychophysiological level a function of waking-state and fourth-state psychophysiology but identical to neither, and which is on the psychological level what Fromm describes as "enlightenment." The prototypic experience of the fifth state, and the ground from which it grows, is the presence in meditation of fourth state pure awareness coexistent with thought processes. The process whereby this occurs involves a "purification" or "culturing" of the nervous system, through processes such as unstressing and experiencing subtler and subtler levels of thought, which are prerequisite to and necessary for the sustained maintenance of fourth-state effects in waking-state activities. Maharishi (1969, p. 173) describes the effects on consequent waking activity of TM:

When the mind transcends during transcendental meditation, the metabolism reaches its lowest point; so does the process of breathing, and the nervous system gains a state of restful alertness which, on the physical level, corresponds to the state of bliss-consciousness or transcendent Being... activity after meditation brings an infusion of transcendental Being into the nature of the mind and through it into all aspects of one's life in the relative field. With the constant practice of meditation, this infusion continues to grow and when it is full-grown cosmic consciousness will have been attained.

There is at present only circumstantial and anecdotal evidence to support these propositions. Green et al. (1970), for example, trained subjects via autogenic feedback to lower muscle tension levels, raise skin temperature, and increase percentage of alpha-8 effects Wallace found as naturally occurring in TM. They report that their most proficient subjects were practitioners of Yoga. To my knowledge there have been no studies of fourth-state psychophysiological effects on subjects in the waking state performing normal activities. The fifth state seems to occur naturally, but its occurrence, like the birth of quadruplets or a large meteor striking the earth, is a statistically rare event and so not easily studied. But there are reports of people who seem to be experiencing the fifth state. Bucke's *Cosmic Consciousness* is one such. Yogananda (1946) describes the transition from fourth state to fifth, which he calls *sabikalpa samadhi* and *nirbikalpa samadhi*, respectively:

*transition from  
fourth state to  
fifth state*

In *sabikalpa samadhi* the devotee attains temporary realization of his oneness with Spirit but cannot maintain his cosmic consciousness except in the immobile trance state. By continuous meditation he reaches the higher state of *nirbikalpa samadhi*, in which he moves freely in the world and performs his outward duties without any loss of God-perception,

This transition can occur rapidly or may take many years, as a function of the state of the nervous system of the individual. During this process the composition of meditation sessions changes from an initial stage of preponderant un-stressing (thoughts, sensations, autokinesthesia, etc.) and momentary or extended pure awareness, to a final stage of momentary un-stressing and preponderant or even unbroken fourth state pure restful awareness. This transition marks the purification necessary to maintain the fifth state. Over the next few years a large enough sample may emerge from among those practicing TM and other techniques to allow experimental studies of the fifth state of consciousness.

*Hypothesis 14: People in the fifth state have "lucid" dreams as a regular occurrence.*

*description  
of "lucid"  
dream*

One attribute of the fifth state, according to Maharishi (1969), is that pure awareness infuses not only the waking state but also the dreaming and sleep states. With all the first three states of consciousness infused with the fourth, one can witness himself going through the sleeping and even the dreaming processes, just as one can witness thought process in meditation. This aspect of the mind is called "the Witness" in the Gurdjieffian system (see Ouspensky, 1938). Witnessing of the dream state has been reported by Ouspensky using a method of holding in mind a definite image or thought while falling asleep. Other writers have described the same phenomenon when naturally occurring and called it the "lucid" dream. Tart (1970, p. 170) has had lucid dreams about three times in his life, and characterizes them this way: "The dreamer 'wakes' from an ordinary dream in that he feels he is suddenly in possession of his normal waking consciousness and knows that he is actually lying in bed asleep *but*, the dream he is in remains perfectly real." This aptly describes the fifth-state experience of dreaming save that the person would not have to "wake" but rather would go into a dream while already fully aware, observing the whole process from beginning to end while experiencing the "reality" of the dream. This dual process also characterizes the fifth-state experience of both the sleep and waking states: both realities are fully experienced simultaneously with pure awareness.

*Hypothesis 15: People in the fifth state will tend to have an absence of psychopathology and of "metapathology:"*

*Hypothesis 16: People in the fifth state will function on the level of "metaneeds" and "Bscognition:"*

Because of the beneficial side-effects of meditation already discussed, a person who had achieved the fifth state via this path would be a fully integrated personality by the time he arrived. In undergoing the process of deep relaxation, un-stressing, and consequent purification of the nervous system, he would undergo on a profound, nonverbal level those major changes that psychotherapies aim for. Harman (1969, p, 131) proposes as the central concept for a unified view of the processes of personal change that "personality and

behavior patterns change consequent upon a change in self-image, a modification of the person's emotionally felt perception of himself and his relationship to his environment." Meditation provides this in the form of what Harman calls "the subjective experiencing of a 'higher self' and the development of a self-image congruent with this experience."

*self-image*

The fifth-state meditator should be gratified in basic needs and have become "self-actualized" and "metamotivated" by "B-values" in Maslow's (1967) terms. Maharishi (1969, p. 164) says of the level of integration of a fifth-state man, "He is established in the Self, and by virtue of this, even when he acts in the field of the senses and experiences their objects, he is not lost in them; maintaining his status in Being, he quite naturally maintains evenness of mind." After only four weeks experimental zazen, Lesh's (1970) subjects showed significantly more openness to experience and empathic ability, and Lesh was ready to conclude, "Meditation appears to be an effective means of assisting people in self-actualization." Moyer (1965) calls meditation the "doorway to wholeness," and notes the similarities between Maslow's self, the being life, and meditation's dictum of "total attentiveness" to immediate reality.

*self-actualization*

The dangers of falling into what Maslow (1967) calls a "metapathology," such as cynicism, nihilism, hatred, bleakness, black-and-white thinking, disintegration, boredom, hopelessness, insecurity, selfishness, confusion, conflict, depression, uneasiness, and so on, would be minimal for the fifth-state meditator, because the experience of the "spirit" requisite for escaping them is built into meditation. Maslow describes techniques for re-education and realization of "the Real Self" (1967, p. 117):

exercises which help to develop (or teach) our sensory awareness, our body awareness, our sensitivities to the inner signals (given off by our needs, capacities, constitution, temperament, body, etc.)-all these apply also ... to our inner metaneeds, i.e., to the education of our yearning for beauty, law, truth, perfection, etc.

Meditation, the essence of (though not the same as) introspection, certainly qualifies. Just as dream-deprivation produces symptoms of psychological disorder, loss of motor coordination, and the like. it may be that the metapathologies are all symptomatic of "meditation-deprivation."

*meditation and metapathology*

In the fifth state the "peak" of experience has become a

plateau, what Maslow (1970) describes as "serene and contemplative B-cognitions rather than climactic ones." The fifth state corresponds to what Maslow describes as "transcending self-actualizers" in his Theory Z (p, 38):

They perceive untlively or sacrally (that is, the sacred within the secular) or they see the sacredness of all things *at the same time* that they also see them at the practical, everyday D-level. They can sacralize everything at will, i.e., perceive it under the aspect of eternity. This ability is in *addition* to -not mutually exclusive with-good reality testing.

*various  
attributes of  
fifth state*

Among other attributes Maslow postulates for this fifth-state type are; the role of innovator, Taoistic objectivity, "people who know who they are, where they are going, what they want, what they are good for, in a word strong Selves, using themselves well and authentically and in accordance with their own true nature," profoundly "religious" or "spiritual" in either the theistic or non-theistic sense. The fifth-state person is at the level of "supernormal Man" in Assagholi's (1965) sense, is "liberated" as Watts (1961) uses the term and "non-mechanical" as Ouspensky (1969) means it, and has attained "true sanity" as Laing (1967) describes it:

true sanity entails in one way or another the dissolution of the normal ego, that false self completely adjusted to our alienated social reality . . . and the eventual re-establishment of a new kind of ego functioning, the ego now being the servant of the divine, and no longer the betrayer.

And yet the fifth-state person continues to function as though completely adjusted to social reality, for he has readjusted at a higher level of integration.

A man in the fifth state has undergone profound psychological changes, but there are no necessary concomitant external manifestations of these changes on the level of social role. Maharishi (1969, p, 174) explains that "when the men of the world, actively engaged in many phases of life, reach the state of cosmic consciousness through Yoga, they continue to act, mainly from force of habit." As the Zen maxim puts it: Before enlightenment, chop wood and carry water; after enlightenment, chop wood and carry water.

With Maslow, I caution those who might do research in this area that fifth-state people will be distributed as heavily among businessmen, workers, managers, educators, and political people as among "the professionally 'religious,' the poets, intellectuals, musicians and others who are *supposed*

to be transcendental and are officially labeled so." And I must state that this paper is the bare beginning of the delineation of the process whereby meditation changes the meditator into the fifth-state being, nor does it do justice to describing what that state is like—in Maslow's words, "They are certainly this; but they are also more than this."

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