Center for Mindfulness

in Medicine, Health Care, and Society

BOOK
1 of 2

Mindfulness-Based Stress Reduction (MBSR) Professional Education and Training

Background Readings

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n Haruki, Y., Ishii, Y., and Suzuki, M. Comparative and Psychological Study on Meditation, Eburon, Netherlands, 1996.

12. MINDFULNESS MEDITATION

What It Is, What It Isn't, And Its Role In Health Care And Medicine

Jon Kabat-Zinn

Mindfulness-based (M-based) stress reduction is a compelling generic approach to self-care, participatory medicine, patient education, and effective coping with stress, pain and illness. It provides a virtually universal framework for catalyzing inner and outer learning about one's own mind and body and relationship to the world and one's place in it, which in turn promotes on-going growth, healthy living, and healing over the lifespan. As such, it has the potential to function as a vehicle for teaching large numbers of people how to stay healthy and optimize their emotional and physical health, how to stay out of hospitals as much as possible, how to live better and cope more effectively with chronic medical problems for which there are presently no cures, and how to use the health care system effectively and economically. It also has the virtue of being an approach that continues to deepen with practice over the lifespan. One can benefit from it at an introductory level during initial exposure to the intervention yet find it equally valuable if not more so at various points in one's life. Many of our patients return to repeat the course either immediately or in future years and to take booster or "graduate" programs to deepen their relationship and understanding of mindfulness practice.

Mindfulness-based stress reduction has potential as well for school-aged children to learn early in life to recognize stress and its symptoms, adopt effective ways of dealing with it, develop emotional "fluency" and competence in social relationships, and develop lifestyles, attitudes and behaviors to promote health and psychological growth over the lifespan.

1. WHAT IS MINDFULNESS? HOW IS IT DIFFERENT FROM CONCENTRATION AND RELAXATION?

Mindfulness meditation is a consciousness discipline (1) revolving around a particular way of paying attention in one's life. It can be most simply described as the intentional cultivation of nonjudgmental moment-to-moment awareness.

Mindfulness has been termed "the heart of Buddhist meditation" (2). It is elaborated most thoroughly in the Buddhist canon in the *Anapana Sati Sutra* (Sutra on mindfulness of breathing)(3), and the *Mahasatipatana Sutra* (Great Sutra on Mindfulness)(2, 4). Mindfulness meditation includes two forms of practice, termed *formal* and *informal* (5, 6, 7). Formal meditation practice refers to making a particular time on a regular basis to devote solely to the cultivation of mindfulness. This is most commonly pursued by stilling the body in one of a number of meditative postures or by conscious walking. Informal mindfulness practice refers to conscious efforts to bring moment-to-moment awareness into all aspects of one's daily life.

The cultivation of mindfulness requires a significant degree of concentration but is not limited to the cultivation of concentration. Concentration here refers to the capacity of the mind to attend to a single object of observation and sustain that attention over an extended period of time. In different schools of Buddhism, concentration meditative practices (termed *samadhi* or *shamatha* practices) are sometimes introduced and practiced for extended periods of time to lay a strong foundation for the later cultivation of mindfulness (termed vipassana practices) while in other schools, concentration and mindfulness are cultivated together. The latter has been the approach taken within the context of M-based stress reduction (5), in part because the flexibility of attention characteristic of mindfulness lends itself to the immediate needs of people living highly complex lives within a secular rather than a carefully controlled monastic society, and in part because the training program can be made more interesting and more accessible to large numbers of people within the mainstream of society if the "wisdom dimension" characteristic of mindfulness (the capacity to discern differences non-judgmentally and to see relationships between objects of observation in a rapidly changing field of activity; and more traditionally, the cultivation of insight into the nature of suffering, into the impermanence of all phenomena, and into the question of what it means to be a "self" and a "self-inrelationship") is included from the very beginning of their exposure to meditation training.

It is important to point out that mindfulness meditation training differs significantly both operationally and in its deep objectives from relaxation training (8), the goal of which is invariably to achieve a state of low autonomic arousal, with little or no emphasis on the systematic cultivation of inquiry or insight. Relaxation is often taught as a technique, to be used as necessary to combat stress or anxiety. Mindfulness should not be thought of as a technique but rather as a way of being. It is practiced for its own sake, and cultivated *daily* regardless of circumstances, in the spirit of the consciousness disciplines, as a "path" or a "Way" and not as a bandaid or technique. While relaxation is a frequent by-product of mindfulness meditation, it is not a necessary or even

desirable proximal endpoint of mindfulness practice.

The goal of mindfulness practice, if there can be said to be a goal at all (since the practice emphasizes non-duality and therefore non-striving) is simply to experience what is present from moment to moment. Thus, emotional reactivity, and the full range of emotional states available to human beings are as much a valid domain of meditative experience as experiences of calm or relaxation.

The cultivation of mindfulness is an arduous challenge, in which one learns to face and work with the full range of human emotions and mind states. Frequently, relaxation in the way it is usually formulated, would be an entirely inappropriate response to human situations and problems. If is offered as the "solution" or the heart of a meditative approach to stress reduction, it will introduce inevitable conflict because of its emphasis on a desirable endstate to be achieved. If one fails to experience or "achieve" relaxation, then one has failed, and the practitioner has either to conclude that she herself is somehow inadequate, or that the technique is lacking. In either case, there has been a thwarting of one's goals and expectations which can lead to a sense of inadequacy and an arrested trajectory of development.

In contrast, it is impossible to "fail" at mindfulness if one is willing to bring whatever it is that one is experiencing into the field of awareness. One does not have to do anything at all, or achieve a particular state in mindfulness practice. We sometimes tell our patients, in the spirit of the paradoxical nature of the non-dualistic approach, that "we will teach you how to be so relaxed that it is OK to be tense."

2. WHAT IS MINDFULNESS-BASED STRESS REDUCTION?

M-based stress reduction is a well-defined and systematic patient-centered educational approach which uses relatively intensive training in mindfulness meditation as the core of a program to teach people how to take better care of themselves and live healthier and more adaptive lives. The prototype program as developed in the Stress Reduction Clinic at the University of Massachusetts Medical Center has been described in detail (5). This model has been successfully utilized with appropriate modifications in a number of other medical centers, as well as in non-medical settings such schools, prisons, athletic training programs, professional programs, the workplace. We emphasize that there are many different ways to structure and deliver mindfulness-based stress reduction programs. The optimal form and its delivery will depend critically on local factors and on the level of experience and understanding of the people undertaking the teaching. Rather than "clone" or "franchise" one cookiecutter approach, mindfulness ultimately requires the effective use of the present

moment as the core indicator of the appropriateness of particular choices. However, there are key priniciples and aspects of m-based stress reduction which are universally important to consider and to embody within any context of teaching. These include:

a making the experience a challenge rather than a chore and thus turning the observing of one's own life mindfully into an adventure in living rather than one more thing one "has" to do for oneself to be healthy.

b An emphasis on the importance of individual effort and motivation and regular disciplined practice of the meditation in its various forms, whether one "feels" like practicing on a particular day or not.

c The immediate lifestyle change that is required to undertake formal mindfulness practice, since it requires a significant time commitment (in our clinic 45 minutes a day, six days per week minimally).

d the importance of making each moment count by consciously bringing it into awareness during practice, thus stepping out of clock time into the present moment.

e an educational rather than a therapeutic orientation, which makes use of relatively large "classes" of participants in a time-limited course structure to provide a *community of learning and practice*, and a "critical mass" to help in cultivating ongoing motivation, support, and feelings of acceptance and belonging. The social factors of emotional support and caring and not feeling isolated or alone in one's efforts to cope and adapt and grow are in all likelihood extremely important factors in healing (9) as well as for providing an optimal learning environment for ongoing growth and development in addition to the factors of individual effort and initiative and coping/problem solving (10).

f a medically heterogeneous environment, in which people with a broad range of medical conditions participate in classes together without segregation by diagnosis or conditions and specialization of the intervention. This approach has the virtue of focusing on what people have in common rather than what is special about their particular disease (what is "right" with them rather than what is "wrong" with them), which is left to the attention of other dimensions of the health care team and to specialized support groups for specific classes of patients, where that is appropriate. It is in part from this orientation, which differs considerably from the traditional medical or psychiatric models, which orient interventions as specifically as possible to particular diagnostic categories, that the generic and universal qualities of M-based stress reduction stem. Of course, stress, pain, and illness are common experiences within the medical context, but beyond that, and even more fundamentally, the participants share being alive, having a body, breathing, thinking, feeling, perceiving, and incessant flow of mental states,

including anxiety and worry, frustration, irritation and anger, depression, sorrow, helplessness, despair, joy and satisfaction, and the capacity to cultivate moment-to-moment awareness by directing attention in particular systematic ways. They also share, in our view, the capacity to access their own inner resources for learning, growing, and healing (as distinguished from curing) within this context of mindfulness practice.

3. OUTCOMES OF SR&RP

The SR&RP has been shown to be effective in a number of descriptive longitudinal studies in the reduction of pain and pain-related symptoms and behaviors in people with a wide range of chronic pain conditions participating in the SR&RP (11, 12, 13) and in the reduction of medical and psychological symptoms in participants who have a wide range of non-pain related chronic medical conditions and diseases (14, 15). Longterm follow-up has shown the results to be maintained for periods of up to four years following the 8-week intervention (13, 14).

Figure 1 shows short-term outcome data on the Medical Symptom Checklist (11) for 458 consecutive patients who completed the SR&RP in 1988 and 1989. This cohort of patients referred to the clinic by their physicians with a typically broad range of medical diagnoses including chronic low back pain (8.9%), headache (10.3%), neck pain (3.1%), chest pain (4.8%), other pain (3.7%), hypertension (7.0), heart disease (5.4%), irritable bowel disease (8.9%), and a large subcohort (26.9) presenting with "functional somatic complaints"

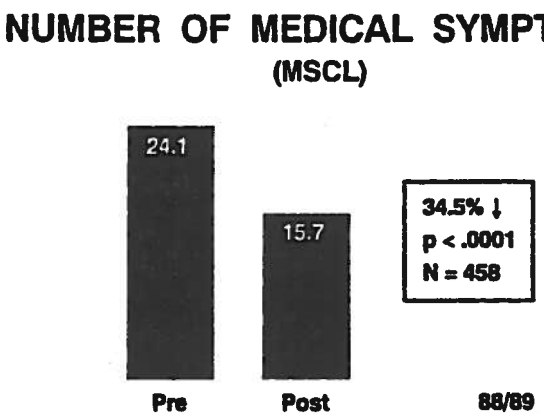

Figure 1: Pre-and post-intervention mean scores on theMedical Symptom Checklist (MSCL) of 458 consecutive completers of the SR&RP with a wide range of primary diagnoses (see text).

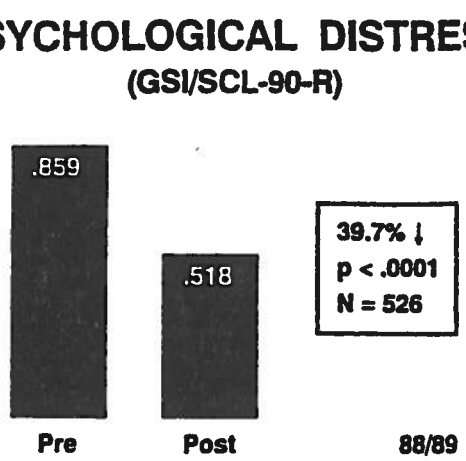

Figure 2: Pre-and post-intervention mean scores of the General Severity Index of the SCL-90-R of 526 consecutive completers of the SR&RP (see text).

associated with anxiety. As shown in Figure 1, there is a mean reduction of 34.5 percent ($p<0.0001$) between the pre and post intervention measures of the number of medical symptoms reported for the preceding month. This finding reproduces and confirms similar results reported in previous studies (11, 12, 13, 14, 15).

Figure 2 shows pre- and post intervention data for the General Severity Index of the SCL-90-R (16, 11) for the same period of time and a somewhat larger patient population which included the 458 individuals from Figure 1. The 40 percent reduction ($p<0.0001$) in psychological distress (the GSI includes dimensions of *somatization, interpersonal sensitivity, anxiety, depression, hostility,* among others) in this population also reflects results from previous studies with similar populations.

Other studies (17) on the same patients showed concurrent small (in the order of 5 to 8 percent) but highly statistically and clinically significant mean increases over the course of the intervention in the personality measures known as Stress Hardiness (18) and Sense of Coherence (19), with three-year maintenance of or increase in the improved condition. These results indicate that not only did symptoms improve substantially in the majority of people undergoing M-based stress reduction in this study, but that in addition, a deeper change occurred at the level of how one perceives oneself and oneself in relationship to others and to the environment. Stress hardiness and sense of coherence are thought to be relatively stable personality characteristics in adults. The finding that they change in a positive direction over a relatively brief intervention and then maintain over a three year period suggests an important effect of the intervention beyond symptom reduction. These findings confirm

clinical observations and anecdotal reports from many participants suggesting a profound impact of M-based stress reduction on perception, proprioception, stress awareness, stress reactivity, coping, and comfort with a broader range of emotions and thought content than is ordinarily admitted to full awareness. We interpret the stress hardiness and sense of coherence results as showing that people change in terms of their sense of self and self-in-relationship in a salutogenic direction, including a greater sense of control, increased commitment to the activities and experiences of daily living, seeing life events as challenges rather than as obstacles (the subdimensions of stress hardiness), and believing that the world is comprehensible, manageable, and meaningful (the subdimensions of sense of coherence).

Other studies of M-based stress reduction have shown it to be effective in the short and long term treatment of anxiety and panic disorder (20, 21) in patients with chronic medical conditions. High levels of adherence with the intervention (15) suggest it is enthusiastically received by people who are referred to the clinic and that mainstream Americans with a wide range of chronic medical conditions are willing to undertake a disciplined and relatively rigorous and intensive course of training in mindfulness meditation and its applications in everyday living, and sustain the effort and resultant benefits far beyond the period of the intervention.

4. ADVANTAGES OF M-BASED STRESS REDUCTION

The M-based stress reduction approach is generic and thus can appeal to and be of significant relevance and benefit for a wide range of people. It can be offered to heterogeneous groups and thus is readily adapted to various settings such as the workplace, schools, prisons, hospitals, corporations, athletic venues, community groups. Since its orientation is towards what people have in common and is based on the systematic cultivation of attention, a universal capacity of human beings) it can serve as an introduction to the basic practice of mindfulness in a generic and heterogeneous context, yet people with a wide range of different medical conditions, live situations, stressors, and histories can all find it of relevance. Specialized offering for particular groups of patients is not necessary, such as for people with chronic pain conditions, or breast cancer, or heart disease or AIDS. In fact, our patients report that they gain a great deal from participating in classes with people who have different problems than their own, and find this situation reassuring and perspectiveenhancing. Graduates of M-based stress reduction training can then seek more specialized interventions or advanced training as appropriate, having received a universally applicable foundation in moment-to-moment awareness, which we believe to be at the

most fundamental level of learning, growing, and personal/transpersonal transformation. The large-class format also means that such programs can be highly cost effective, as one instructor can typically teach a class with from 20 to 35 participants. Over time, a small but committed group of instructors can see and train significant numbers of people and begin to have an influence at the level of community public health. Over the past 15 years, the SR&RP at the University of Massachusetts Medical Center has had close to 7,000 people complete the program.

The availability of an M-based stress reduction program in a medical center or hospital can have a number of important consequences for the health care system:

a Physicians have a place to send their patients when the course of traditional treatment is less than effective, or when patients "fall though" the cracks of the health care system. Such a program can serve as a safety net and opportunity to try an alternative, patient-centered, educational, mind/body alternative approach;

b it is important from the point of health care costs for medical centers and hospitals to take responsibility for teaching people the fundamentals of physical, psychological and spiritual health, for mobilizing their own inner resources for growth and healing, and for coping more effectively with stress and pain in non-pharmacological ways, and ultimately, for staying out of the hospital and learning how to appropriately use medical care and assert themselves effectively in communicating with their doctors and the health care system (22).

5. CAUTIONARY NOTES

It is important to point out to prospective participants that it is a non-trivial commitment to oneself and to the program to undertake this eight-week training (23). We tell our patients that it may be stressful in the short term to take the SR&RP, as it requires an immediate and significant lifestyle change, most readily seen in the need to devote a minimum of 45 minutes per day, six days per week to practicing the various forms of meditation and yoga assigned for "homework." Moreover, we feel it is important to point out that things may seem like they are getting worse rather than better at first as one brings a higher degree of attention to unpleasant and potentially anxiety-filled experiences and moments, and that this requires a commitment to face and "be with" one's problems rather than to deny them or emotionally distance oneself from them. These are all aspects of the informed consent process that we engage in with patients referred to the clinic before they are admitted to the program itself.

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Thus, M-based stress reduction is not for everybody at any time in their lives. One has to be ready to undertake such a major commitment, even if it is time-limited. Some degree of selfmotivation is required. However, we appreciate people who come with an open sceptical attitude, and who are willing to explore their own possibilities using this approach for eight weeks and suspending judgement and just doing the practice as best one can, and letting the results speak for themselves at the end, but not before. Following this approach, we have shown that there is a very low (15 percent) drop out rate for such an intensive type of participatory intervention (15).

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ON PSYCHOTHERAPEUTIC ATTENTION

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Attention of the finest quality is the fundamental instrument of the therapist. Given its basic importance, it is thus quite astonishing that so little explicit discussion of attention is to be found in the clinical literature, and so correspondingly meager is the training in attention available to would-be therapists in professional psychology programs.

attention
and
current
psychotherapy
training
programs

Training programs do provide a conceptual framework which assumes that the candidate is already adept in the uses of attention. In addition to a great deal of psychodynamic theory, these programs promulgate technical admonitions, which differ depending upon the school involved, and yet always seem to coalesce, whatever their content, into a sort of professional conscience, inner perceptor, or judge. This inner critic may exhort the conscientious therapist to carry out such attentional maneuvers as maintaining unconditional positive regard; monitoring the countertransference; sustaining a complementary relationship; being authentic (or hidden); refraining from solving the client's problems (or solving them with well-timed, technically elegant interventions), *etc*. The typical psychotherapist enters private practice feeling ethically committed to giving attention to each client, to establishing and maintaining rapport, and to sustaining sensitive contact regardless of subject matter, emotional tone, or context. Without further training, such requirements are about as easy to follow as the exoteric "Love thy neighbor as thyself."

"Psychotherapy is an undefined technique applied to unspecified problems with unpredictable outcomes. For this technique we recommend rigorous training," quips one text (Rainey, 1950). Yet this is exactly correct. It is just because psychotherapists must work in the realm of the vague and ephemeral that they need to apply themselves most diligently to the exacting art of paying attention.

psychotherapy training

Attentional expertise arises in several traditions. The psychotherapeutic tradition from Freud onward may be seen as a massive undertaking designed to free the submerged, frozen, or fascinated attention of people suffering from unremembered reminiscences. Indeed, the basic attentional training offered therapists today is through personal psychotherapy. And to the degree that it is successful, therapy does render the attention available to what is happening in reality, here and now, so that the truth can be perceived and made the basis for right action.

meditation training

Attentional technologies are also to be found within the sacred traditions from ancient times onward. Each of the great religions has incorporated a system of meditation with its own procedures, phases, and stages. And each meditative discipline begins with and depends upon techniques designed to tame, direct, and master human attention.

Although the aims and methods of these two traditions are different, psychotherapy and meditation have commonalities too significant to overlook. And although the clinical psychotherapy literature recognizes the need for skillful attentional deployment, only the meditative traditions systematically deliver the skills in any specific way. The following discussion is based on insights and experience derived from the practice of both traditions.

ANALYSIS OF PSYCHOTHERAPEUTIC ATTENTION

raw sensory data

All therapists, regardless of their theoretical orientation, must draw upon essentially the same raw sensory data. As a therapist I have what I can see, hear, or otherwise sense outside me (the client's words, postures, gestures, tones of voice, patterns of breathing, *etc.*), and what goes on inside me (my own proprioceptive sensations, feelings, thoughts and associations, hunches and intuitions, *etc.*). Ordinarily, my attention is simply invested, either in the outside or the inside world. To borrow from Martin Buber (1958) and Gurdjieff (1973), it may be said that attention is divided

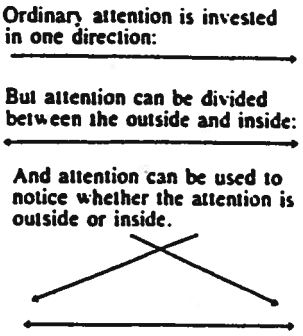

FIGURE 1
THE DIVISION OF THERAPEUTIC ATTENTION IN TERMS OF OBJECT

between I and Thou, like the double-headed arrow, as shown in Figure 1.

The therapist, however, must learn to maintain attention in both directions. Both outer and inner worlds must be sensitively known for therapy to be real therapy and not just a conversation. I notice, moment after moment, what catches my attention out there and what it brings up in me, in here. And what in the mind notices this? The attention is further divided so that what the Sufis might call a "special organ of perception" (Shah, 1964, p. 338) is formed in response to the necessity of the mind to monitor itself. This witnessing, observing consciousness notes when I am paying attention to you and when to myself. The division of attention between my own inner process and what the client is doing, saying, *etc.*, is a division according to the *object* of awareness.

forming a "special organ of perception"

But there is another contrast to be made, this time in terms of the *kind of focus* of attention. Figure 2 shows attentional deployment in the psychotherapeutic situation, this time with the witnessing function at the apex of a triangle in which a continuum of the kind of attentional focus forms the base. The impartial observer witnesses, as if from above, how focused the therapist's attention is, moment by moment. It notices how much investment, cathexis, or fascination there is with a particular element, whether the object be inner or outer. It also notices when the attention is not caught by anything specific but instead is broadly focused on the entire panorama of experience. The base of the triangle illustrates this continuum of focus. It ranges from the narrowly focused attention that we all know when en-

witnessing, as if from above

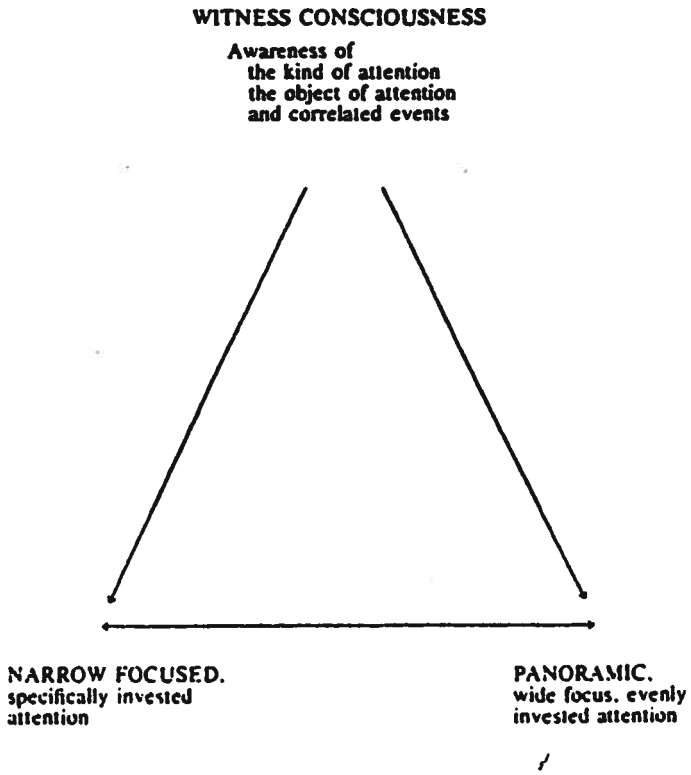

FIGURE 2
THE DIVISION OF THERAPEUTIC ATTENTION
IN TERMS OF FOCUS

tranced with a work of art, horrified at an accident, or even lost in reading the back of a cereal box, to the freely moving, evenly invested attention that notices the broad display of characteristics that compose the full range of inner and outer experience.

fluctuating from inside to outside, wide to narrow

As a psychotherapist I have a great deal of raw data with which I can fine-tune attention. There is information on what is going on outside of me and how much I am specifically focused on any particular aspect of it. There is information on what is going on inside of me and to what degree I am focused within. And there is meta-information that tells me how my attention is fluctuating from inside to outside and back again, and how the beam of my awareness is focusing narrowly or opening panoramically. Consciousness plays now on my client, now on myself. Now it is intensely caught by something, now even and free. It is the art and craft of psychotherapy to make full use of information from all these sources, detecting the forms and patterns

that exist, and rendering them available for the benefit of the client.

The arrows composing the triangles in Figures 1 and 2 are in motion. At the apex, the witness is aware of awareness. Ordinarily this part of the mind is a non-interfering observer of the fluctuating focus of attention as it flits from outside to inside, from wide to narrow, and back again. With training it can also take control, intentionally directing the attention to focus on something, to maintain steady awareness of something, to stop focusing on something, or to play evenly over a field that encompasses everything without exception. For example, when my attention is fascinated by some portion of the client's story, I might want to stop being primarily content-oriented in order to pay attention to the client's wider spectrum of expression which might include, *e.g.*, body language or tone of voice. Or I might find it necessary to withdraw some of my attention to note my own discomfort triggered by the story. With practice comes skill in shifting the focus of awareness.

shifting the focus of awareness

The two opposites of focused and panoramic attention must be seen as more heuristic than natural categories. These elemental forms of attention, like the pure elements of chemistry, probably exist rarely, if ever, in nature. The one-pointed concentration of the stalking lion or the bandit waiting in ambush lasts only until the prey is overcome or abandoned. The normal mode of attention in sentient beings everywhere seems to be a fluctuating panoramic awareness in which focus narrows upon significant objects and then widens again.

The distinction between narrowly focused attention and panoramic awareness is also made in the traditional division of meditation techniques in Buddhism, in which the novice is typically required to learn to interfere with the normal attentional flux by intentional focus on an object and, when this is more or less mastered, is taught how to expand the awareness to encompass all and everything. Nor is the distinction relevant only to Buddhist meditation practices. It seems to have universal value in understanding the array of attentional technologies within the world's religious traditions. In a review of meditation forms, Goleman (1977) categorizes the more familiar systems according to definitions given in the Buddhist classic, the *Visuddimagga*, into concentration methods (which are narrow focus techniques involving identification), mindfulness methods (which involve panoramic attention), and methods hybridized from both. In Table 1, which is reproduced from Goleman's

focused and panoramic meditation

TABLE 1
AN APPLIED ATTENTIONAL TYPOLOGY OF MEDITATION TECHNIQUES

SYSTEM	TECHNIQUE	TYPE
Bhakti	Japa	Concentration
Kabbalah	Kavvanah	Concentration
Hesychasm	Prayer of the Heart	Concentration
Sufi	Zikr	Concentration
Raja Yoga	Samadhi	Concentration
Transcendental Meditation	Transcendental Meditation	Concentration
Kundalini Yoga	Siddha Yoga	Concentration
Tibetan Buddhism	Vipassana	Integrated
Zen	Zazen	Integrated
Gurdjieff	Self-remembering	Mindfulness
Krishnamurti	Self-knowledge	Mindfulness
Theravada	Vipassana	Integrated

(from Goleman, 1977)

book, we can see the basis for the contrast between, say, the *Zikr* of a Helveti dervish who chants the name of Allah in total absorption, and the self-remembering of a Gurdjieff student who undertakes to witness self and environment with impartial awareness. These two practices illustrate the polarity shown in the triangle of therapeutic attention, where the base of the triangle represents the continuum ranging from narrow to wide focus attention. The similarities that exist between the kinds of attention needed by therapists and those employed in meditation training appear to fit this model, at least in part. There have been other, more elaborate classifications of attentional processes (Naranjo & Ornstein, 1971; Speeth, 1978), but for our present purposes the ancient Buddhist contrast between narrow- and wide-beam attention will do nicely. Following the Buddhist tradition, we will begin with a consideration of the narrow-beam, tightly focused practices often described as concentration practices.

CONCENTRATION

Concentration is the fixation of attention on something to the exclusion of everything else. Typically, though not exclusively, the meditator is instructed to diligently require the wandering mind to become wholly occupied with one object, perhaps a *kasina*—a distinct colorful form like a light blue disk on a white background, or the reflection of the moon in a jar of water—or more commonly, the breath. In the Hindu practice of *trataka* the meditator gazes one-

pointedly at a candle flame until the eyes tear. In siddha yoga, the practice of *guru bhave* entails intentional identification with the spiritual teacher. The meditator systematically identifies each part of the body with the corresponding part of the guru's body: "This is my guru's right foot, this is my guru's left foot, this is my guru's right leg, this is my guru's left leg," *etc*. And all the religious traditions make use of concentration upon sacred syllables and formulas, from the "*Om mani padme hum*" and myriad other mantras of Tibetan Buddhism to the prayer of the heart, "Lord Jesus Christ, have mercy upon me, a sinner!"

meditation upon one object

All these practices involve the effort to limit the attentional focus and keep the mind steady upon this chosen object. Regardless of their religious affiliation, practitioners of such exercises report similar experiences when the attention is successfully focused in a steady way. In some forms of Sufism, there is an effort to attend only to God, regardless of whatever else impinges, so that, as Rumi sings, "Thou and I, with no 'Thou' or 'I,' shall become one through our tasting" (in the experience of *fana*, complete absorption with God). This state of being is exemplified in this story of Rumi's, as retold by Shah (1968, p. 189).

The Beloved

One went to the door of the Beloved and knocked. A voice asked: "Who is there?" He answered: "It is I." The voice said: "There is no room here for me and thee." The door was shut.

After a year of solitude and deprivation this man returned to the door of the Beloved. He knocked. A voice from within asked: "Who is there?" The man said: "It is Thou." The door was opened for him.

In the Tibetan tradition there is a teaching story that illustrates the relationship between narrowly focused, steady attention and identification. As is so often true with the Tibetans, it is somewhat more earthy and less ethereal than the Persian mysticism so poetically transmitted by Rumi. A Tibetan teacher, so the story goes, gives his disciple the assignment to go to the cowshed and meditate upon a bull. The student goes dutifully to the barn every day to contemplate the animal. After some period of time the teacher comes for a progress check. The student reports that his attention is wavering only a little now. "Good," says the teacher, "please continue!" After another while, the student reports that his attention is fully on the bull and nothing else, all the time. The teacher prescribes still more concentration. Finally, after many, many moons, the teacher

narrow focus and identification

comes for the usual ritual of evaluation. He calls through the cowshed door, asking about the student's progress in meditation. The only answer is a loud bull snort and a "Moo." Now the student has attained.

involuntary concentrated focus

We have all experienced narrowly focused and concentrated attention when it is elicited by a strong enough pull from some aspect of the environment. When a movie is sufficiently engaging we forget to eat popcorn, even lose the sense of being in a theater. Subjects under hypnosis become oblivious to background stimuli when entering trance. Those newly in love can barely think of anything else, so fascinated is the attention upon one object. It is fundamental in developmental psychology that children learn early to attend to their primary caretaker, and in fact, the orientation to the caretaker seems to entail imitative identification.

Identification is a primitive and immediate attentional focus, familiar to anyone who has ever become caught up with the feelings of a character in a movie or play. Information is perceived at least in part by the process similar to that of concentrative, narrow-focus meditations, but different from them in being involuntary, temporary, effortless, and usually unconscious. For example, in the therapeutic situation, the therapist could learn what the client is feeling, at least in part, by experiencing the changes occurring within his or her own experience while performing an "imitative identification" with that client. But how is this done *voluntarily*, and not because the object is fascinating, *i.e.*, due to our conditioning? One analyst (Greenson, 1967) describes a method thus:

identification through empathy

> Empathy means to share, to experience the feelings of another human being. One partakes of the quality of the feelings, and not the quantity. Its motive, in psychoanalysis, is to gain understanding; it is not used for vicarious pleasure. It is essentially a pre-conscious phenomenon; it can be consciously instigated or interrupted; and it can occur silently and automatically, oscillating with other forms of relating with other people. The essential mechanism is a partial and temporary identification with the patient on the basis of a working model of the patient within the analyst, which he has constructed from his sum of experience with the patient.
>
> By shifting the working model of the patient into the foreground, and pushing all that is peculiarly or uniquely me into the background, I have let the patient's words and feelings enter this part of me. The model reacts with ideas, feelings, memories, or fantasies, *etc.*

Here we have a theorist of technique who explicitly employs empathy, consisting of identification that can be "consciously instigated or interrupted," implying a level of skill that, anyone who has seriously attempted to sustain a meditative focus to the point of identification will attest, is possible only with repeated, motivated efforts. It is in *voluntarily* instigating and interrupting this attentional activity that the methods and techniques of concentrative meditation might be most applicable for the psychotherapist. As for the involuntary sort of identification, this can be expected to arise from fascinating immediacies or from the therapist's countertransference (*i.e.* biases due to unfinished psychological business in the therapist's personal past; for a range of psychoanalytic explanations of identification in the countertransference, *see* Fliess, 1942; Fliess, 1952; Spitz, 1956; Reich, 1960; Kernberg, 1975).

voluntary control of attention

Greenson indicates that in order to empathize one must hold the image or model of the other in the foreground, pushing what is oneself into the background. Presumably this is done in order that the identification that forms the basis for empathy can take place. By implication his method also suggests another key to the voluntary control of attention, a powerful method well known to masters of meditation. If I make what is "peculiarly me" foreground, the identification will stop. And what is uniquely me? My proprioceptive experience, certainly, and my thoughts and feelings and sense impressions. This is the fundamental practice given in the teaching of Gurdjieff, who saw the involuntary state of identification as the prison of mankind (Speeth, 1976). A student of Gurdjieff described this practice as follows:

> Whether or not it be active in me, the possibility is given me to become aware, at certain moments, of my own presence: I, here, now. This, when I experience it, is accompanied by a strangely familiar taste, a particular sensation that might be called 'genuinely' subjective. It is quite simply, I. I recognize myself. I remember myself. I" (Tracol, 1968).

Thus the interruption of identification by the therapist when it is no longer appropriate for empathy, or when it is contributing to therapeutic blocks because it is part of a counteridentification, can be effected by the practice of self-remembering, a particular form of attention in the family of mindfulness practices.

self-remembering

In therapy it is vitally important to get a taste of the client's experience, to know as if from the inside what it is like to live that life. Robert Heinlein (1964) coined a new verb for

"grokking"

it: to *grok*. Grokking is a basic human way of knowing that is immediate, non-cognitive, and deeply identified. Grokking is the sort of identification with another in which we temporarily match their inner experience. Upon this base, true empathy can be built. But grokking can be involuntary when the attention is focused narrowly and steadily because of patterns of countertransference. In this situation we have a potentially dangerous analog to concentrative meditation, which, like concentrative meditation, can entail certain risks.

dangers of fixed attention techniques

It is widely known in the various meditation systems that fixed attention techniques are the most risky. In putting someone or something in the foreground while putting all that is peculiarly me in the background, and while so doing limiting the natural fluctuation of attention, I may lose touch with my own sense of self. I may become ungrounded, unbalanced, without the firm foundation of proprioception and inner mental perception that is a figured base in ordinary life. Concentration methods are thus ecstatogenic, quickly and reliably producing altered states of awareness, feelings of oceanic union, and other novel experiences that may be seized upon for their presumed significance by unbalanced minds. They may account for the majority of meditation casualties.

counter-transference burn-out

Countertransference may pin the therapist's attention upon one client in a manner not dissimilar to these concentrative meditations, and then similar phenomena of identification may occur, giving rise to the strange exhaustion that haunts so many people helpers, an occupational hazard currently known as "burn-out." After all, therapists not only grok, but they have to grok fellow humans who are anguished, defeated, and often at their wits' end, or at least, certainly not at their best. Thus therapists are doubly at risk: they stand a chance of losing a feeling of being securely grounded in their own being, and they are in danger of unknowingly bearing the heavy burdens of many others who are presumably less fortunate than they in terms of the sheer weight of suffering in their lives. Should countertransference glue their attention, they will be in the position of the Tibetan novice with the bull, but with an entirely different conscious intent, and with success being the limited identification that is a normal part of human empathy, not a union without boundaries.

Mastering identification in psychotherapy involves three attentional skills. First, the therapist must be able to hold the attention steady on one object so that identification can

ensue, not only when transference dictates, but voluntarily. Second, the therapist must be able to withdraw from a concentrated focus at will, so that if for some reason the attention has become fixed in an inappropriate way, it can be redirected or opened up. And third, the therapist needs the ability to let the attentional focus wax and wane without interference. This is the function of witness consciousness. It is most important technically because of the abundance of information it provides.

three attentional skills

PANORAMIC ATTENTION

One-pointed attention in which there is no felt difference between the observer and the observed, in which boundaries vanish into confluence and separate individualities blend in communion gives mystical meaning to some, and, as an ingredient in the countertransference, problems of therapeutic effectiveness to others. Panoramic attention, in which awareness is invested evenly in all things, moment after moment, has no less importance or relevance for the therapeutic setting, but adds quite another flavor. There is a feeling of impartiality, of spaciousness, of breadth of vision. One is mindful of whatever is the case, moment by moment. The idea is not to be fascinated or fixed upon any one thing, but to allow the attention to be flexible and to stay with whatever is in the field of perception. There is no possibility of disturbance or distraction in this form of meditation because there is no attempt made to keep any object in the foreground, neither is there anything to oppose. Awareness is all-encompassing. As the ancient *Salayatana Vagga Samyutta* states:

all-encompassing awareness

> "Bikkhus [monks], the all is to be fully known. What all is to be fully known? The eye is to be fully known, visual objects are to be fully known, eye-consciousness is to be fully known, eye-contact is to be fully known, that weal or woe or neutral state experienced, which arises owing to eye contact—that also is to be fully known. Ear is to be fully known . . . nose . . . scent . . . tongue . . . savors . . . body is to be fully known, tangibles are to be fully known . . . mind is to be fully known . . ." (Sayadaw, 1972).

The mind's capacity to register everything impinging upon it is brought into play in this practice. Attention is panoramic. The avoidance of selection of any one object makes it the antithesis of the practices which focus maximally. Achieving non-selective, non-preferential attention is an art in itself. Nyanaponika Thera, the great contemporary Theravadan master, put it this way:

non-selective, non-preferential attention

bare attention—bare of labels

> Bare attention consists in the bare and exact registering of the object. It is not as easy a task as it may appear, since it is not what we normally do, except when engaged in disinterested investigation. Normally man is not concerned with disinterested knowledge of "things as they truly are" but with "handling" them and judging them from the viewpoint of his self-interest, which may be wide or narrow, noble or low. He tacks labels to the things which form his physical and mental universe, and these labels mostly show clearly the impress of his self-interest and his limited vision. It is such an assemblage of labels in which he generally lives and which determines his actions and reactions. Hence the attitude of Bare Attention—bare of labels—will open a man to a new world (Nyaponika Thera, 1962).

choiceless awareness

This new world of things as they actually are is discovered through the cultivation of "choiceless awareness." This trend is rare in other religions but runs through Buddhism like a red thread connecting the original Buddhism of the Theravadan or Southern school with the continuous awareness practice of *shikan taza* in Soto Zen and even the non-practice that is called *mahamudra* at the pinnacle of Tibetan Buddhism (Chang, 1963).

Zen meditation practice is typically a composite and counterpoint of concentrative and panoramic attention, a hybrid form. One of its most eloquent proponents, Suzuki Roshi, described the process of renouncing the tendency to maneuver an object into the foreground:

big mind

> When you are practicing Zazen meditation, do not try to stop your thinking. Let it stop by itself. If something comes into your mind, let it come in and let it go out. It will not stay long. When you try to stop your thinking, it means you are bothered by it. Do not be bothered by anything. It appears that something comes from outside your mind, but actually it is only the waves of your mind, and if you are not bothered by the waves, gradually they will become calmer and calmer. . . . Many sensations come, many thoughts or images arise, but they are just waves from your own mind. . . . If you leave your mind as it is, it will become calm. This mind is called big mind (Suzuki, 1970).

Freud's "basic rule" of free association is to some degree a similar practice. Compare this version with Buddhist mindfulness:

> For the purpose of self-observation with concentrated attention it is advantageous that the patient should take up a restful position and close his eyes; he must be explicitly instructed to renounce all criticism of the thought formations which he may perceive. He must also be told that the success of the psychoanalysis depends upon his noting and communicating everything that passes through his mind, and that he must not

allow himself to suppress one idea because it seems to him unimportant or irrelevant to the subject, or another because it seems nonsensical. He must preserve an absolute impartiality in respect to his ideas (Freud, 1900).

Freud's free association

Freud described the inner work of free association as the twofold effort of paying attention to the process and content of the mind and simultaneously of eliminating all criticism or censorship of what arises. The requirement for lack of censorship makes this practice akin to Buddhist mindfulness. Of course, the psychoanalytic process, especially in its emphasis on communicating to the analyst, is directed toward different ends. It is expressive and interpersonal. There is a listener, the therapist. This is in contrast to mindfulness meditation where the practice is silent, often solitary, and intrapersonal.

Freud precisely defined how this method of listening was to take place, instructing the therapist that the appropriate attentional gesture

Freud's evenly hovering attention

> simply consists in making no effort to concentrate the attention on anything in particular, and in maintaining in regard to all that one hears the same measure of calm, quiet attentiveness of "evenly hovering attention," as I once before described it. In this way a strain which could not be kept up for several hours daily and a danger inseparable from deliberate attentiveness are avoided. For as soon as the attention is deliberately concentrated in a certain degree, one begins to select from the material before one; one point will be fixed in the mind with particular clearness and some other consequently disregarded, and in this selection one's expectations and one's inclinations will be followed. This is just what must not be done, however; if one's expectations are followed in this selection, there is a danger of never finding anything but what is already known, and if one follows one's inclinations, anything which is to be perceived will most certainly be falsified (Freud, 1900).

Panoramic attention, floating free of preconceptions and heeding everything equally, is the therapist's counterpart of the patient's free association of thought. Ideally, in analysis both participants are flexibly and spontaneously noting whatever is occurring to them: one is expressive, the other receptive.

Freud blithely remarked in the first chapter of *The Interpretation of Dreams* that most patients learned how to follow the basic rule for free association the first time it was taught them. He had more than three decades of practice to modify this view, for, as everyone who has attempted to follow his or her own mind knows, there may be distractions and obstacles which can be formidable. Although he admitted

that he himself was quite expert at panoramic inner awareness of the kind we have been describing, Freud was astonished and disappointed to realize that others were not as immediately adept. He began to recommend a personal analysis for all practitioners of the psychoanalytic art in order that they might develop the ability to attend evenly and appropriately to patients. This is more obvious to therapists today who learn that widened attentiveness exists to the degree that there is no competing personal agenda (*i.e.*, countertransference) within the therapist to capture his or her attention. Suppose, for example, that the therapist is concerned and worried about whether he or she is a good enough person, intelligent enough, or whether things are happening according to a textbook sequence. Such concerns are distracting and, at the very least, preclude evenly hovering, poised attention.

suspending the inner judge

In order to relax the focus, neither directing the mind toward a goal nor grasping at clues to solve a mystery, the therapist must at least temporarily suspend the effects of the inner judge and critic. As a situation inviting the maximum creativity in patient and therapist alike, classical psychoanalysis can be seen as two people practicing procedures which are similar, in part, to mindfulness. Here, each sensitively notices whatever is taking place, moment by moment. The client follows the basic rule of free association of thought, while the analyst "oscillates between observer and participant" (Reik, 1948); that is, between panoramic and concentrated awareness, ever mindful of where and how the attention is. Glancing back at Figure 2, it will now be clear that this is what is schematized.

Gestalt awareness exercises

There has been very little mention of attention in psychotherapy outside of the psychoanalytic tradition, although the Gestaltists are a notable exception. Anyone experienced in mindfulness meditation practices will easily recognize some counterparts in the Gestalt awareness exercises, for example, the continuum of awareness. One set of instructions from an early work is given here.

> (1) Maintain your sense of actuality—the sense that your awareness exists now and here. (2) Try to realize that *you* are living the experience: acting it, observing it, suffering it, resisting it. (3) Attend to and follow up all experiences, the "internal" as well as the "external," the abstract as well as the concrete, those that tend toward the past as well as those that tend toward the future, those that you "wish," those that you "ought," those that simply "are," those that you deliberately produce and those that seem to occur spontaneously. (4) With regard to every experience without exception, verbalize: "Now I am aware that . . . (Perls, Hefferline & Goodman, 1951).

That this exercise has elements which appear to parallel the mindfulness family of meditation practices is not surprising since Perls had not only the psychoanalytic lineage of Freud (Reich was his therapist), but sat Zazen meditation as well.

WITNESS CONSCIOUSNESS

watching the therapeutic process

If the therapist is to know when and how attention is being used, a certain amount of awareness must be withdrawn from the therapeutic interaction to watch the process. This is far from the more archaic and confluent forms of perception. As Nietzsche (1885) knew, "The thou is older than the I," which might be further translated as, we are interested in the outside world before we are interested in ourselves. The act of observing our inner world is less natural, more effortful and convoluted. When "The *I* observes the *Me*," as William James (1927) expressed it, human awareness is turned upon itself and psychological self-study begins.

impartial observation

In real psychotherapy, as opposed to a sympathetic conversation that merely looks and sounds like psychotherapy, the therapist sustains the inner stance of impartial observation, as if from outside the interaction, or above. While allowing most of the attention to play freely upon what the client is saying and doing, and what associations I have to it, how interested I am and how empathetic, I reserve just a little attention to notice all this flux. I allow my attention to play freely or to zoom into deep identification, yet I sustain a bit of myself above it. When I am immersed I watch my almost total immersion; when I am engaged in evenly hovering attention I watch that.

The ability to sustain such attention is acquired by skilled efforts of will, according to James (1927, p. 95), and "the longer one does attend to a topic the more mastery of it one has. And the faculty of bringing back a wandering attention over and over again is the very root of judgment, character, and will. No one is *compos sui* if he have it not. An education which should improve this faculty would be *the* education *par excellence*."

THERAPEUTIC ATTENTION APPLIED

We have now had an introduction to concentrated, focused attention; panoramic mindfulness; and the sustained impartial witnessing of attentional flux that observes the play of consciousness as if from the zenith. We can therefore consider problems of using these forms of attention in actual practice.

Attending to What Is Outside

Concentrating on what is outside is the basis of identification; being mindful of what is outside is panoramic attention to outside events. In order to use the capacity for identification to its fullest extent, the therapist must be willing to participate deeply in the experience of another human being. Putting oneself in another person's shoes involves the ability to permit confluence to happen and in so doing to be temporarily absorbed, allowing all that is peculiarly me to recede into the background.

the ability to tolerate regression

Certainly the individual pattern of character and level of personality organization will affect the depth of identification a therapist can experience. But a more serious impediment can be an insufficient capacity for regression. In order to allow regression into archaic forms of thinking and feeling, one must feel confident in domains beneath the rational strata of the mind. Perhaps only good mothering can provide a person with the wherewithal to make the dive into primary process, or perhaps courageous contact with deep truths about oneself is quite enough. In any case, without the ability to tolerate regression, protective mechanisms within the psyche may effectively prevent full empathy.

the ability to withdraw emotionally

Those who are unable to break the bond of identification may be worn down by the burdens of others, losing effectiveness, sensitivity, and zest. Part of the problem may be the therapist's superego that dictates a caring and concerned attitude at all times and implies that it is superficial, overtechnical, or downright mean to voluntarily redirect one's attention toward one's inner world. The requirement so often found in humanistically oriented programs that the therapist must maintain a warm, caring stance may cause a reverse reaction. Knowing how to voluntarily connect or withdraw emotionally can provide the self-pacing skill necessary to go deep with another, and most particularly with another who suffers.

being free from theory

To attend fully to what is outside in a mindful, nonidentified way, one must, first of all, be relatively aware of one's own theoretical admonitions. Although some theoretical orientation is necessary to organize impressions and data, the therapist has to be sufficiently free from the compulsions of theory so that all information can be considered more or less equally. Otherwise, attention may be caught by what *should* be relevant to the problem and much goes by unnoticed. To believe unreservedly in the truth of a theory is to risk discovering exactly or approximately what one expected. For

the client, the danger lies in detecting and producing just what a person who is seen as an authority (the therapist) seems to want. This is a commonly observed effect in psychotherapy: Freudian analysts report that their analysands have dreams about caves and projectiles; Jungians report that *theirs* produce dreams about wise old women and mandalas. Reinforcement theory would possibly account for the phenomenon, since a little "uh huh" or other minor affirmative expression demonstrably increases the probability of any word or behavior on which it is contingent (Greenspoon, 1955). The Freudian may hear one key word, the Jungian another—and both show, by the subtlest changes in posture, breathing, or facial expression that they are especially interested. Clearly, unassimilated preconceptions are a hindrance in the use of attention in clinical work.

maintaining emotional independence

The notion of maintaining complementariness in the relationship between therapist and client is relevant here. As Haley (1963) pointed out, it is necessary for effective therapy that the therapist be in an emotionally independent position with respect to the client. Certainly maintaining an observing, open attention is prerequisite to a complementary relationship. Further, maintaining even attention regardless of content permits the client to express negativities, talk about taboo issues, and report unpleasant reactions to the therapeutic situation that would be hidden if the therapist showed by the subtlest of reinforcing communications that these topics were hurtful or unwelcome. That the therapist can allow the client great freedom of expression, is illustrated by the case of Pietro, presented by Erickson (Erickson & Rossi, 1979), who permits and encourages months of twice-weekly insults from a client, his graceful acceptance finally effecting a successful therapeutic outcome. Such skill in letting the attention hover evenly while being the object of negative (or positive) transference reactions is attained not through heroic acts of self-control, but through an understanding of the nature of transference and resistance in the human predicament.

Attending to What Is Inside

paying attention to oneself

To become deeply absorbed with the contents of my own mind I must have considerable self-acceptance. In a situation where I am being paid to attend to another, how can I in good faith attend to myself? Of course, what is actually called for in the therapeutic situation is sensitive attention to everything, including deep feelings that arise in the therapist. Paying attention to myself, even to the degree of being immersed for a while in my own inner process, in-

volves a tolerance for being in the foreground. This may prove difficult because of the therapist's superego described earlier, and it may also be difficult because of characterological biases requiring the therapist to stay in the background.

Related to the issue of allowing myself to feel strongly while functioning as a therapist is the question of how and whether these feelings are manifested. Effective therapy requires both the ability to feel deeply and give those feelings no expression at all, as well as the ability to feel deeply and express it genuinely and spontaneously. In fact, Rogers (1951) and others have recommended theater training for therapists, who need to develop these subtle skills.

But not all inner attention is of this concentrative, specifically focused kind. To be mindful of inner process without becoming immersed in any one aspect, the therapist must be able to acknowledge whatever arises in the mind without editing, judging, or getting unduly alarmed. In actual practice, an appropriate method might be to hold myself in unconditional positive regard, *i.e.*, truly without conditions, so that whatever arises from the depths of me will not jeopardize my sense of worth and goodness. This necessarily applies to anything: memories of forbidden acts and ideas, trivial tunes, fragments of experience that might better be forgotten, sexual, aggressive, or unethical fantasies, private associations that are shocking—anything. To the degree self-acceptance is present, attention can range freely over the contents of the mind allowing whatever is there to bubble up in reaction to the ever-changing situation. Within those bubbles are very often found the keys to the mysteries human beings bring to therapy. All depth psychotherapy is presumably conducted with the ideal of some sort of unconditional positive regard for the client, but what is not often said is that the therapist's unconditional positive regard for his or her own inner life is a wholesome and necessary component of therapy as well.

self-acceptance

Attending to the Kind of Attention Being Used

In order to correctly perceive just how my attention is being used at any moment, I must, first of all, be able to tell the difference between the inner sensation of focused, invested attention and that of panoramic, impartial attention. I must have experienced both to do this. And I must have comprehended what was happening when I did. With regard to attending to my attention when it is concentrated, there is a seeming paradox. How can I watch myself when I am totally absorbed in something about myself or my client? The answer is that I cannot. I have, therefore, at least two choices.

I can renounce full investment, retaining just enough consciousness to notice how and with what I am identified, or I can renounce knowing exactly what is happening during intense emotional investment, "coming to" again and realizing in retrospect that for a moment I had been "swept away." Personal preferences in this matter will probably be based on each individual's character structure. On the other hand, noticing when I am using panoramic, evenly hovering attention is much easier. There is no pull of fascination to work against the act of self-observation. I simply experience my mind softly registering whatever occurs, within and without.

free from self-criticism

To tolerate full awareness of my degree of focus or freedom of attention, I must be relatively independent of self-criticism. When my attention is deeply invested, or as soon as I realize that it was, then there is no point in placing a value judgment on that event, even though parents, professors, supervisors, or gurus might disapprove of that identification at that time. More is to be learned by bare attention. In the same way, it will be more helpful to my client and myself when I notice that my attention is wandering inadvertently if I simply note the fact and do not add evaluation to the event.

The therapist who is thoroughly conversant with both narrow focus and panoramic modes of attention will be able to move from one to the other at will—a skill required of every psychoanalyst who practices according to Freud's indications, but equally important for other therapists as well. It is here that meditation practice can be relevant, although of course there is a psychodynamic aspect too. To be willing to withdraw a little attention from what I am doing and thinking to monitor the process, I must have somehow reduced the need to be immersed in my life experience. I must have lost some of the addiction to the thrills of identification, and awakened a little from the dream in which most of life is conducted.

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INVESTIGATION
Listening as Deeply as We Possibly Can

By Narayan and Michael Liebenson Grady

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Narayan: We may hear the word "investigation" and think it has only to do with analyzing, because in our education and in our culture this is what is meant by investigation. Although using thought skillfully is certain a level of investigation, a deeper level of investigation in meditation doesn't have anything to do with thought. This deeper level has to do with bringing a silent, concentrated inner listening into our lives, into our moment to moment experiences. This is really what investigation is—listening deeply, as deeply as we possibly can.

To investigate is to bring a quality of openness into our life and to fully experience whatever it is that is happening without choosing sides; being for or against. The opposite of investigation is assuming—assuming that we already know how things are; this cuts off the oxygen in our minds, and cuts off the oxygen in our hearts as well. A kind of hard-heartedness emerges when we assume that we know anything at all. Investigation is very soft; it's very open. It is a certain quality of probing into; but it's not a hard, harsh kind of probing, nor a striving kind of probing. It's simply an interest in life, in all aspects of life, really wanting to know very clearly and directly for ourselves, not based on anybody else's ideas or opinions. In practice, we're doing something quite radical; we're saying, "Enough! I want to find out for myself because everything in my life depends on it."

Ajahn Sumedho talks about investigation as being the quality of affectionate curiosity. It comes out of caring—truly caring about ourselves, about others, about this life, about this world that we find ourselves in. It is not a cold, superficial analysis; it's affectionate, it's warm, it's intimate. It is an investigation about the very nature of life. This quality of investigation is, of course, strong in most children. Some years ago I was at a museum looking at some paintings. I looked around at a certain point and I noticed a child who seemed to be about two years old playing in the center of the floor where there was a very small step that one had to go down to get to the rest of the museum. This two year old was fascinated with this step: he climbed up, he climbed down, he got down and examined it, he started eating it (of course). Everyone else was walking around, "Ah, what a nice picture! Ah, what a nice..." though you could see that there was a certain

amount of boredom in the air. But this child was absolutely not bored! What was right there in the here and now for him was very interesting and it really wasn't anything at all.

This is what is meant by investigation; this innocence and curiosity about everything that we encounter. We are learning how to let go of our attitudes in order to be willing to see. We're not trying to assume any particular perspective, any particular attitude. We're not attempting to create any particular images, images about ourselves or images about the world. We are attempting, rather, to let go of our images and perspectives.

There are clearly different levels upon which investigation occurs. One level is which investigation occurs. One level is the investigation of our personal stories. This is an important level of investigation; often this work is done in therapy. This kind of insight can come quite naturally through practice, as well, as we notice repetitive thought patterns. Investigative practice can, however, bring us to a deeper aspect, which is not so much an investigation of a personal story as investigation of a human being's story. What this means is that we look deeply into what is common to us as human beings; what connects us, what binds us together. What is common to all phenomena? And what we begin to see, of course, is that regardless of our personal stories or histories, everything is changing, all the time. Everything that arises also passes away, everything that appears also disappears. That which appears to be solid, upon closer examination, is seen to be just energy. We begin to learn that no thought, emotion, sight, sound, smell or physical sensation can possibly bring lasting contentment. We find great peace in letting go of the hope of finding something that will.

It is easy for us to react blindly to what is happening within us as well as outside of us. This is an instinct that we have—we can react to stimuli. Without an awareness practice, without investigation, we tend to be drawn in by what looks attractive or appears to be pleasant; and we normally pull away from what appears to be unpleasant or frightening. We also don't pay much attention at all when experiences are neither pleasant nor unpleasant. But we are blessed, really, with minds that have the ability to be attentive. Not all life forms have this particular capacity. We can be grateful we are here as human beings with this ability. With investigation, with attentiveness, we have the option to not blindly react to what is occurring in the environment, or to what arises inwardly. We have the alternative of investigation, of paying attention with a great deal of openness and a real freshness of mind. Each one of us has the ability to observe.

Let's say we are experiencing something—a particular state of mind, or a particular thought, or a particular sensation—and we are lost in it, overwhelmed it. Instantly, upon remembering that we have this capacity to observe, this capacity to look deeply and to investigate, we have the ability to free ourselves from its clutches. Instead of being lost in boredom or lost in anger, or lost when we become upset, disturbed, irritated, frustrated or annoyed, it may be possible to observe our annoyance or our anger or our frustration. We have this capacity to look deeply and to investigate instead of being tossed around. We have the capacity to look more deeply, to call forth stillness from within. This is what makes all the difference. Each time one notices that one has been lost there is a little bit of freedom, a little bit of insight that occurs. Investigation brings about faith and inner

confidence. Investigation is very soft; it's very open. It's really simply an interest in how things are.

From this perspective, it doesn't matter what the contents of consciousness are. If anger is occurring, we can recognize anger as a mental state. If we can look more deeply and stay with it long enough we see that it actually dissolves or disappears or changes into something else. Much of investigation has to do with staying with the experience until we see a change.

In fully experiencing the body and the mind, we may experience a sense of discomfort that is a natural element in life. If we can acknowledge this discomfort fully we can open up into something that's very free. It can take away from the personal sense that this is just hard for me, when the reality is that it's often hard to be a human being. When my sister's children were little she used to say to them, "I know, I know, it's hard to be a baby!" One might think it's kind of nice to be a baby; you get taken care of and all, but her understanding which I think was quite accurate is that it's really hard to be a baby; it's a lot of work. And it becomes more work as one grows up! But if we can acknowledge this, some space opens up and we can sit with serenity in the midst of our life. We can sit with intense discomfort with great comfort. We can sit with intense pleasure with a sense of ease. We can sit when our experience of life is neither uncomfortable nor pleasurable.

In the guided practice session in the morning when we focused on exploring the sensations in the hands, some of you mentioned that many of the thoughts were either, "Oh, there's nothing happening in the hands...I want to get something done; I want to go where there's pain," or, "I want to go have a good time; I want to go to where there's pleasure." Neutrality is not something we're so interested in usually. It's not passionate, it's not culturally interesting, it's not stimulating. And yet, for many of us, life is just ordinary much of the time. Can we be aware of the experience of neutrality?

It is helpful to be able to stay with pain until we see it change. It is helpful to be able to stay with pleasure until we see it change. It is helpful to be able to stay with neutrality until we see it change. In doing so, we can begin to see that what we thought to be inherently a certain way, isn't. Without investigation we may think, ice cream is always pleasurable; a particular posture is always painful; paying attention to the hands is always neutral—when in actuality, everything is changing. To see this can free us from the cycle of moving towards pleasure and away from pain. Most of us already have areas in our life where we are naturally investigative—it might be in relationship or while cooking or when walking in nature. But for many of us there are also places where we do not even think of the possibility of investigating. We seem quite sure that there's no reason to. An important part of our investigation in practice is looking into those areas which we find difficult to investigate.

We put ourselves and we put others in these little boxes and then we say, "This is who you are, and this is who I am," but then, with a curious, affectionate quality of investigation, we look more deeply and we see, "Ah, this is a state of mind, this is a thought. It is not who I am. It is a thought." So much of the box created is just a

construction of thought. We can see how much we define ourselves—and confine ourselves—by the thoughts that arise and pass away, by the feelings, or the emotions, or the states of mind that arise and pass away.

This openness of investigation is something that we can really work with in our lives, work with in our practice. Noticing when we are having these thoughts of "I know you," or "I know myself," and then seeing if we can look a little bit deeper, a little bit further, investigating the mental constructions, the belief systems, the thoughts based on conditioning, the thoughts based on emotions. It is really quite exciting.

Assuming that we don't know leaves an enormous space in which we can truly begin to learn on a nonverbal level. The understanding that begins to emerge is a growing inner sensing, a growing presence which may include but is not confined to words or concepts.

Michael: Ajahn Maha Boowa, a great teacher from the Thai forest tradition, describes the process of investigation in insight meditation as sati-pannà. This path of inquiry joins mindfulness, sati, with clarity of understanding or pannà. The investigative process uses mindfulness to question, to observe and discover the true nature of our experience. With investigation leading the way, the changing nature of our experience becomes apparent, as well as the wisdom to see that the source of our discontent comes from clinging to these changing experiences.

To investigate and discover the deepest levels of truth and inner freedom, one has to begin to pay attention in a new way. At the heart of Buddhist meditation is this spirit of investigation. In his advice to the Kalàmas (AN 3.65) the Buddha stresses the importance of inquiry in any spiritual practice, making a clear distinction between faith based on beliefs and faith based on investigation and direct experience. However, learning to observe without the reference of secondhand knowledge and without preconceptions of what we are going to find requires courage and energy. It can help to have a sense of immediacy in one's practice—particularly during the times when our efforts to awaken become lax or when we find ourselves slipping into habit or preoccupation with all the endless dramas that fill our lives. There are many ways of cultivating a sense of immediacy and some reflections work better than others, depending on one's personality and motivation level.

In the Thai forest tradition, an awareness of death provides a compelling sense of immediacy in one's practice. The great 20th century forest monk, Ajahn Mun, took the sense of immediacy to the farthest edge. He chose to live in the forest, day and night, and consciously chose the areas where tigers were dwelling. He and his monks did a lot of walking meditation: they set up a walking path of thirty or forty feet, and set two large candles at each end, and just walk back and forth. Ajahn Mun would do this all night, up to twelve hours at a stretch—fast walking, slow walking, medium, varying it a lot. I want to spend my life as aware as possible--I want to get to the truth of what this life is all about. And while walking at night there would be sounds of tigers, close by, growling. There are many stories of monks encountering tigers, sometimes successfully, sometimes

not! But this factor gave his practice a real sense of immediacy—every step could easily have been his last step.

And I think all of us have our own tigers. When I start getting lazy and find myself slipping into old habits, and find myself getting preoccupied with all the little dramas and contents of whatever is going on, I take a few minutes to reflect on the fact that life is going by very quickly and how do I want to spend it? And I always come up with the same answer, that I want to spend it as aware as possible of what my experience is, and I want to get to the truth of what this life is all about. Having a sense of urgency in practice has to be balanced by wisdom which recognizes and tempers the striving mind—the mind that is trying to make something happen. With investigation we are not trying to make anything happen, but rather our energies are directed towards seeing more fully and directly what is already happening. This requires a balanced effort. The spacious and accept-ing qualities of mindfulness create the climate for experiences to surface and concentration enables us to sustain the attention needed to experience the present moment more fully. The power of concentration helps harness and focus the energies needed to investigate our experience in a fresh way.

The simplicity and solitude of the forest tradition encouraged concentration. Yet, most of us live lives which are complex and demanding. Concentration does not come easily for many of us; it takes work to cultivate it. I think this is why it is so essential to keep a daily for mal practice going and to take retreat time whenever possible. We need to take the time to focus our attention and to say to ourselves, "I am going to look at my life as deeply as possible and try to keep my attention there long enough to understand better the true nature of this body-mind process." Quite often we can be aware of what our experience is in a general way, touching it perhaps for a few moments with a vague awareness, but our attention gets distracted and the investigation of "what is" gets blocked. This distracted state of affairs keeps our understanding on the surface and often fuels discontent rather than liberating us from confusion. Living an ethical life based on authenticity and principles of non-harm is also essential in freeing energy and keeping us focused in our inquiry. If we are in earnest in our efforts to discover the deepest levels of truth and freedom within us, our actions in relationships must begin to support this process. There is no better way to stifle investigation and liberation than attaching to pretense or harming ourselves or others. When we are caught up in our conditioned aversion and fear of the unpleasant, or clinging to the pleasant through fantasy and unskillful action, opening up to the experience in a full and direct way is difficult, at best.

One crucial way to develop equanimity is through investigating our reactions when they arise. Much of our practice ininvestigation requires opening to reactions without identifying with the reactions; that is, investigating reactions with the silence of mindfulness and a deep interest in listening without the "I" or "me" closing in around the experience. Holding on to any concepts and images of "I" or "me" prevents us from seeing in a new way. The "I" or "me" is the legacy of the past; it represents the known. When life is experienced and filtered through assumptions and habit, we become de-energized and life can become joyless. One crucial way to develop equanimity is through investigating our reactions when they arise.

Investigation also includes examining, through observation, the attitudes and preconceptions that we hold towards others—attitudes which prevents us from engaging in relationships in an open and direct way. When we think we know someone, we no longer are in relationship with a living changing being. Rather we are now in relationship with an idea of that person. Investigation can bring new energy and joy to our relationships because we are paying attention with interest, while opening to the actuality of change. Through investigation we strengthen our capacity to live without fear and to live in harmony with the changing nature of our lives. When we can face the truth without contracting inwardly through clinging or aversion, we can discover peace in genuine confidence because we no longer rely on that which is fleeting.

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What is Mindfulness?

Christopher Germer, Ph.D.

To live is so startling, it leaves but little room for other occupations...

–Emily Dickinson

This article is excerpted from the first chapter of a new book, Mindfulness and Psychotherapy. *A collective effort of the Institute for Meditation and Psychotherapy, the book is edited by Christopher K. Germer, Ronald D. Siegel and Paul R. Fulton, and will be published by Guilford Press in the spring of 2005.*

Psychotherapists are in the business of alleviating emotional suffering. Suffering arrives in innumerable guises: stress, anxiety, depression, behavior problems, interpersonal conflict, confusion, despair. It is the common denominator of all clinical diagnoses and is endemic to the human condition. Some of our suffering is existential, such as sickness, old age and dying. Some suffering has a more personal flavor. The cause of our individual difficulties may include past conditioning, present circumstances, genetic predisposition, or any number of interacting factors. Mindfulness, a deceptively simple way of relating to experience, has long been used to lessen the sting of life's difficulties, especially those that are seemingly self-imposed. In this volume we will illustrate the potential of mindfulness for enhancing psychotherapy.

People are clear about one thing when they enter therapy—they want to feel better. They often have a number of ideas about how to accomplish this goal, although therapy doesn't necessarily proceed as expected.

For example, a young woman with panic disorder—let's call her Lynn—might call a therapist, hoping to escape the emotional turmoil of her condition. Lynn may be seeking freedom from her anxiety, but as therapy progresses, Lynn actually discovers freedom in her anxiety. How does this occur? A strong therapeutic alliance may provide Lynn with courage and safety to begin to explore her panic more closely. Through self-monitoring, Lynn becomes aware of the sensations of anxiety in her body and the thoughts associated with them. She learns how to cope with panic by talking herself through it. When Lynn feels ready, she directly experiences the sensations of anxiety that trigger a panic attack and tests herself in a mall or on an airplane. This whole process requires that Lynn first turn towards the anxiety. A compassionate bait and switch has occurred.

Therapists who work more in a more relational or psychodynamic model may observe a similar process. As connection deepens between the patient and the therapist, the conversation becomes more spontaneous and authentic, and the patient acquires the freedom to explore what is really troubling him or her in a more open, curious way. With the support of the relationship, the patient is gently exposed to what is going on inside. The patient discovers that he or she need not avoid experience to feel better.

We know that many seemingly dissimilar forms of psychotherapy work (Seligman, 1995). Is there an essential ingredient active across various modalities that can be isolated and refined? Mindfulness may prove to be that ingredient.

Mindfulness: A Special Relationship to Suffering

Successful therapy changes the patient's relationship to his or her particular form of suffering. Obviously, if we are less upset by events in our lives our suffering will decrease. But how can we become less disturbed by unpleasant experiences? Life includes pain. Don't the body and mind instinctively react to painful experiences? Mindfulness is a skill that allows us to be less reactive to what is happening in the moment. It is a way of relating to all experience—positive, negative and neutral—such that our overall suffering is reduced and our sense of well-being increases.

To be mindful is to wake up, to recognize what is happening in the present moment. We are rarely mindful. We are usually caught up in distracting thoughts or in opinions about what is happening in the moment. This is mindlessness.

...And why is it important to therapists?

Examples of mindlessness are:

- Rushing through activities without being attentive to them.
- Breaking or spilling things because of carelessness, inattention, or thinking of something else.
- Failing to notice subtle feelings of physical tension or discomfort.
- Forgetting a person's name almost as soon as we've heard it.
- Finding ourselves preoccupied with the future or the past.
- Snacking without being aware of eating.

(Adapted from the Mindful Attention Awareness Scale Brown & Ryan, 2003)

Mindfulness, in contrast, focuses our attention on the task at hand. When we are mindful, our attention is not entangled in the past or future, and we are not judging or rejecting what is occurring at the moment. We are present. This kind of attention generates energy, clear-headedness and joy. Fortunately, it is a skill that can be cultivated by anyone.

When Gertrude Stein (1922/1993, p.187) wrote "A rose is a rose is a rose is a rose," she was bringing the reader back again and again to the simple rose. She was suggesting, perhaps, what a rose is not. It is not a romantic relationship that ended tragically four years ago, it is not an imperative to trim the hedges over the weekend—it is just a rose. Perceiving with this kind of "bare attention" is an example of mindfulness.

Most people in psychotherapy are preoccupied with past or future events. For example, people who are depressed often feel regret, sadness or guilt about the past and people who are anxious fear the future. Suffering seems to increase as we stray from the present moment. As our attention gets absorbed in mental activity and we begin to daydream, unaware that we are indeed daydreaming, our daily lives can become a nightmare. Some of our patients feel as if they are stuck in a movie theatre, watching the same upsetting movie their whole lives, unable to leave. Mindfulness can help us to step out of our conditioning and see things freshly—to see the rose as it is.

Definitions of Mindfulness

The term mindfulness is an English translation of the Pali word sati. Pali was the language of Buddhist psychology 2500 years ago and mindfulness is the core teaching of this tradition. Sati connotes awareness, attention and remembering.

What is awareness? Brown and Ryan (2003) define awareness and attention under the umbrella of consciousness:

Consciousness encompasses both awareness and attention. Awareness is the background "radar" of consciousness, continually monitoring the inner and outer environment. One may be aware of stimuli without them being at the center of attention. Attention is a process of focusing conscious awareness, providing heightened sensitivity to a limited range of experience (Westen, 1999). In actuality, awareness and attention are intertwined, such that attention continually pulls "figures" out of the "ground" of awareness, holding them focally for varying lengths of time (p.822).

You are using both awareness and attention to read these words. A tea kettle whistling in the background may eventually command your attention when it gets loud enough, particularly if you would like a cup of tea. Similarly, we may drive a familiar route "on autopilot," vaguely aware of the road, but respond immediately if a child runs in front of us. Mindfulness is the opposite of being on autopilot; the opposite of day-

Mindfulness can help us to step out of our conditioning and see things freshly.

dreaming—it is paying attention to what is salient in the present moment.

Mindfulness also involves remembering, but not dwelling in memories. It involves remembering to reorient our attention and awareness to current experience in a wholehearted, receptive manner. This requires the intention to disentangle from our reverie and fully experience the moment.

Therapeutic Mindfulness

The word "mindfulness" can be used to describe a theoretical construct (mindfulness), a practice of cultivating mindfulness (such as meditation), or a psychological process (being mindful). A basic definition of mindfulness is "moment-by-moment awareness." Other definitions include: "Keeping one's consciousness alive to the present reality" (Hanh, 1976, p. 11); "The clear and single-minded awareness of what actually happens to us and in us at the successive moments of perception" (Nyanaponika Thera, 1972, p.5); attentional control (Teasdale, Segal & Williams, 1995); "Keeping one's complete attention to the experience on a moment-to-moment basis" (Marlatt & Kristeller, 1999, p.68); and, from a more Western psychological perspective, a cognitive process that employs creation of new categories, openness to new information, and awareness of more than one perspective (Langer, 1989). Ultimately, mindfulness cannot be fully captured with words because it is a subtle, non-verbal experience (Gunaratana, 2002).

When mindfulness is transported to the therapeutic arena, its definition often expands to include non-judgment: "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment to moment" (Kabat-Zinn, 2003). In her summary of the mindfulness and psychotherapy literature, Baer (2003, p. 125) defines mindfulness as "the non-judgmental observation of the ongoing stream of internal and external stimuli as they arise." Non-judgment fosters mindfulness when we are dealing with difficult physical or emotional states. By not judging our experience, we are more likely to see it as it is.

Mindfulness and Acceptance

"Acceptance" is an extension of non-judgment. It adds a measure of kindness or friendliness. When therapists are working with intense emotions such as shame, anger, fear, or grief, it is essential that we maintain an open, compassionate, and accepting attitude. Empathy and positive regard are important relational aspects of successful therapy (Norcross, 2001, 2002) that overlap with acceptance. If either the therapist or the patient turns away from unpleasant experience with anxiety or revulsion, our mutual ability to understand the problem is likely to be compromised.

When therapists are working with intense emotions...it is essential that we maintain an open, compassionate, and accepting attitude.

From the mindfulness perspective, acceptance refers to a willingness to let things be just as they are the moment we become aware of them—accepting pleasurable and painful experiences as they arise. Acceptance is not about endorsing maladaptive behavior. Rather, acceptance precedes behavior change. "Change is the brother of acceptance, but it is the younger brother" (Christensen & Jacobson, 2000, p. 11). Mindfulness-oriented clinicians see "radical acceptance" as part of therapy practice (Brach, 2003; Linehan, 1993b).

Mindfulness in Psychotherapy

The short definition of mindfulness we will use in this volume is (1) awareness, (2) of present experience, (3) with acceptance. These three elements can be found in most discussions of mindfulness in both the psychotherapy and the Buddhist literature. (For detailed consideration of the construct of mindfulness within psychology, please see Bishop et al. (2004) and Brown and Ryan (2004) and Hayes and Feldman (2004). Although our definition has three distinct components, they are irreducibly intertwined in the experience of mindfulness.

The presence of one aspect of mindfulness does not automatically imply the presence of others. For example, awareness may be absorbed in the past, such as in blind rage about a perceived injustice. Awareness may also be present without acceptance, such as in disowned shame. Likewise, acceptance can exist without awareness, as in premature forgiveness; while present-centeredness without awareness may exist in a moment of intoxication. All components of mindfulness—awareness, present-centeredness, and acceptance—are required for a moment of full mindfulness. Therapists can use these

three elements as a touchstone for identifying mindfulness in therapy.

The value of a stripped-down, operational definition of therapeutic mindfulness is twofold. First, if mindfulness indeed reveals itself to be a key ingredient of effective psychotherapy (Martin, 1997), clinicians will want a conceptual tool to guide their movements in the consultation room. Second, if outcome research continues to show mindfulness to be a promising treatment strategy (Baer, 2003), researchers will need a definition with clearly defined component parts to design new interventions.

Mindfulness and Levels of Practice

Mindfulness has to be experienced to be known. People may practice mindfulness with varying degrees of intensity. At one other end of a continuum of practice is everyday mindfulness. Even in our often pressured and distracted daily lives, it is possible to have mindful moments. We can momentarily disengage from our activities by taking a long, conscious breath. After gathering our attention, we can ask ourselves, "What am I feeling right now?" "What am I doing right now?" "What is most compelling to my awareness right now?" This is mindfulness in daily life, and is how mindfulness commonly occurs in psychotherapy.

At the other end of the continuum we find monks, nuns and lay people who spend a considerable amount of time in meditation. When we have the opportunity to sit over sustained periods of time with closed eyes, in a silent place, and sharpen concentration on one thing (such as the breath), the mind becomes like a microscope and can detect minute mental activity. This is illustrated by the following meditation instruction:

> Should an itching sensation be felt in any part of the body, keep the mind on that part and make a mental note itching...Should the itching continue and become too strong and you intend to rub the itching part, be sure to make a mental note intending. Slowly lift the hand, simultaneously noting the action of lifting, and touching when the hand touches the part that itches. Rub slowly in complete awareness of rubbing. When the itching sensation has disappeared and you intend to discontinue the rubbing, be mindful of making the usual mental note of intending... Slowly withdraw the hand, concurrently making a mental note of the action, withdrawing. When the hand rests in its usual place touching the leg, touching (Sayadaw, 1971, pp. 5-6)

This level of precise and subtle awareness, in which we can even detect "intending," clearly requires an unusual level of dedication on the part of the practitioner. Remarkably, the instruction above is considered a "basic" instruction. Sayadaw writes that, at more advanced stages, "Some meditators perceive distinctly three phases: noticing an object, its ceasing, and the passing away of the consciousness that cognizes that ceasing—all in quick succession" (1971, p. 15).

Moments of mindfulness have certain common aspects regardless of where they lie on the practice continuum. The actual moment of awakening, of mindfulness, is the same for the experienced meditator as for the beginner practicing mindfulness in everyday life. The experience is simply more continuous for experienced meditators. Mindful moments are:

- Non-conceptual. Mindfulness is awareness without absorption in our thought processes.
- Present-centered. Mindfulness is always in the present moment. Thoughts about our experience are removed from the present moment.
- Non-judgmental. Awareness cannot occur freely if we would like our experience to be other than it is.
- Intentional. Mindfulness always includes an intention to direct attention somewhere. Returning attention to the present moment gives mindfulness continuity over time.
- Participant observation. Mindfulness is not detached witnessing. It is experiencing the mind and body more intimately.
- Non-verbal. The experience of mindfulness cannot be captured in words because awareness occurs before words arise in the mind.
- Exploratory. Mindful awareness is always investigating subtler levels of perception.
- Liberating. Every moment of mindful awareness provides freedom from conditioned suffering.

These qualities occur simultaneously in

When we have the opportunity to sit over sustained periods of time with closed eyes, in a silent place, and sharpen concentration on one thing (such as the breath), the mind becomes like a microscope and can detect minute mental activity.

each moment of mindfulness. Mindfulness practice is a conscious attempt to return awareness more frequently to the present, with all the qualities of awareness listed above. Mindfulness *per se* is not unusual; continuity of mindfulness is rare indeed.

Everyday mindfulness allows us to develop insight into psychological functioning and to respond skillfully to new situations. Mindfulness in deep meditation provides insights into the nature of mind and the causes of suffering. These insights, such as awareness of how impermanent things really are, help us become less entangled in our ruminations and thereby foster more mindfulness.

Psychotherapists and Mindfulness

Clinicians are drawn to the subject of mindfulness and psychotherapy from a variety of directions: clinical, scientific, theoretical and personal. In addition, psychotherapy patients are increasingly seeking therapists who might understand their meditation practice. These developments are not surprising, given that Buddhist psychology and its core practice, mindfulness, have been growing in popular appeal in the West.

A Brief History of Mindfulness in Psychotherapy

The field of psychoanalysis has flirted with Buddhist psychology for some time. Freud exchanged letters with a friend in 1930 in which he admitted that Eastern philosophy was alien to him and perhaps "beyond the limits of [his] nature" (in Epstein, 1995, p. 2). That did not stop Freud from writing in Civilization and Its Discontents (1930/1961) that the "oceanic feeling" in meditation was an essentially regressive experience. Franz Alexander (1931) wrote a paper entitled "Buddhist Training as an Artificial Catatonia." Other psychodynamic theorists were more complimentary, notably Carl Jung, who wrote a commentary on the Tibetan Book of the Dead in 1939 and had a lifelong curiosity about Eastern psychology. Later, Erich Fromm and Karen Horney dialogued with Zen scholar, D.T. Suzuki (Fromm, Suzuki, & DeMartino, 1960; Horney, 1945). In 1995, Mark Epstein wrote Thoughts without a Thinker, which triggered new interest in Buddhist psychology among psychodynamic clinicians.

Many practicing therapists took to Eastern philosophy or meditation as a way of improving their lives before beginning their professional careers. Some started to meditate in the late Sixties at a time when ideas of enlightenment followed the Beatles and other famous pilgrims back to the West from India. Former Harvard psychologist Ram Dass' book, Be Here Now (1971), a mixture of Hindu and Buddhist ideas, sold over a million copies. Yoga, which is essentially mindfulness in movement (Boccio, 2004; Hartranft, 2003), also traveled West at the time. Some therapists began trying to connect their personal practice of meditation with their clinical work.

Studies on meditation flourished, including cardiologist Herbert Benson's (1975) use of meditation to treat heart disease. Clinical psychology kept pace with numerous articles on meditation as an adjunct to psychotherapy or as psychotherapy itself (Smith, 1975). In 1977, the American Psychiatric Association called for an examination of the clinical effectiveness of meditation. The majority of the journal articles at the time studied concentration meditation, such as Transcendental Meditation and Benson's program. In the last ten years, the preponderance of studies has switched to mindfulness meditation (Smith, 2004). Jon Kabat-Zinn established the Center for Mindfulness in 1979 at the University of Massachusetts Medical School to treat chronic conditions for which physicians could offer no further help. Over 15,000 patients have completed this Mindfulness-Based Stress Reduction (MBSR) program, not counting participants in over 250 MBSR programs around the world (Davidson & Kabat-Zinn, 2004).

An exciting, more recent area of integration for mindfulness and psychotherapy is in empirically-validated mindfulness-based interventions. The impetus seems to stem from the pioneering work of Kabat-Zinn's (1990) MBSR program and Marsha Linehan's Zen-inspired Dialectical-Behavioral Therapy (1993a). The publication by Teasdale et al in 2000 of an effective mindfulness-based treatment for chronic depression kindled further interest in mindfulness among clinical researchers. The potential of these mindfulness and acceptance-based approaches has ushered in a new wave of cognitive-behavioral treatments for familiar problems

Mindfulness per se is not unusual; continuity of mindfulness is rare indeed.

(Hayes, Follette, & Linehan, 2004; Hayes, Masuda, Bissett, Luoma, & Guerrero, 2004).

Where is the current interest in mindfulness heading? We may be witnessing the emergence of a more unified model of psychotherapy. We are likely to see more research that identifies mindfulness as a key element in treatment protocols, as a crucial ingredient in the therapy relationship, and as a technology for psychotherapists to cultivate personal therapeutic qualities and general well-being. Mindfulness might become a construct that draws clinical theory, research, and practice closer together and helps integrate the private and professional lives of therapists.

Therapist Well-being

Although mindfulness appears to enhance general well-being (Brown & Ryan, 2003; Reibel et al, 2001; Rosenzweig, 2003), therapists may be drawn to mindfulness for the simple reason that they would like to enjoy their work more fully. Psychotherapists choose to witness and share human conflict and despair many of their waking hours. Sometimes we are asked by a sympathetic patient, "How do you do it?" What do we do when a clinical situation appears impossible to handle? How do we stay calm and think clearly?

Doing psychotherapy is an opportunity to practice mindfulness in everyday life. The therapy office can be like a meditation room in which we invite our moment-to-moment experience to become known to us, openly and wholeheartedly. As the therapist learns to identify and disentangle from his or her own conditioned patterns of thought and feeling that arise in the therapy relationship, the patient may discover the same emotional freedom. The reverse is also true; we can be moved and inspired by our patients' capacity for mindfulness under especially trying circumstances.

Practicing clinicians are reminded regularly about the importance of the therapy relationship in treatment outcome (Crits-Christoph et al., 1991; Luborsky et al., 1986, 2002; Wampold, 2001). Clinicians also struggle with "transfer of technology"—making a bridge between treatment protocols developed in our universities and their application in the field. When focused primarily on implementing an empirically-derived protocol, to the exclusion of a vital, interesting and supportive therapy relationship, therapists and their patients can both lose interest in the work. In the coming years, mindfulness practice may prove to be a tangible means for building empirically-supported relationship skills. This may help return our focus to the therapeutic connection, since there is something we can do to improve it. How we plan interventions may even be guided by a common therapeutic principle—the simple mechanism of mindfulness.

Does Mindfulness Matter to Therapists?

It is difficult to predict just what the impact of mindfulness on our profession will be. Padmasambhava, an eighth-century Tibetan teacher, said that "when the iron bird flies, the dharma [Buddhist teachings] will come to the West" (in Henley, 1994, p. 51). Although it is now over one hundred years since Buddhist psychology made it to our shores (Fields, 1992), it is only fairly recently that the ideas have captured the imagination of the clinical and research communities in psychology. The grand tradition of contemplative psychology in the East and the powerful scientific model of the West are finally meeting.

Scientifically, what we know is preliminary, but promising. Clinicians are on the vanguard of exploration, and even marginal success in the consultation room can be an important beginning (Linehan, 2000). We have many more questions than answers: we need to determine which mindfulness-based interventions work, and for whom. We should explore the impact of a meditating therapist on therapy outcome. We may wish to understand better the cognitive, biochemical, neurological, emotional, and behavioral factors that contribute to mindfulness. It may also be fruitful to investigate the outer reaches of mindfulness—what human beings are capable of in terms of attentional control and emotional regulation, and how this translates into the way we live our lives.

To have psychological techniques at our disposal, drawn from a 2500-year-old tradition, which appear to change the brain, shape our behavior for the better, and offer intuitive insights about how to live life more fully, is an opportunity that may be difficult for psychotherapists to ignore. Only time will tell what we make of it.

The grand tradition of contemplative psychology in the East and the powerful scientific model of the West are finally meeting.

Blood, Bone, Space and Light

By Reginald Ray

In the last of a three-part series on Buddhism and the body, Reginald Ray talks about the four foundations of mindfulness. When we look closely into our bodies, he says, we find "nothing but space, drenched in sunlight."

The four foundations of mindfulness represent one of the earliest and most universally practiced teachings on Buddhist meditation. As classically given in the Theravadan tradition, these foundations are mindfulness of body, feeling, mind and mental events.

Within the Buddhist world there are many different ways in which this teaching is articulated and practiced, depending on historical period, school, lineage and individual teacher. One of the most interesting approaches, taught within the Tibetan tradition, sees the four foundations as part of a single meditative progression. One begins with meditating on the body, the most obvious and accessible "object" of attention, then progresses to feeling, mind and contents, each of which is progressively more subtle than the last.

What is most intriguing about this approach is that it sees the four foundations as progressively deeper and more refined explorations of the nature of the body itself. I would like to provide a brief description of this teaching as a particularly clear illustration of the way the body and its spirituality are understood, not just in Tibetan Buddhism but more widely in Buddhism as a whole.

Mindfulness of Body

The first foundation includes various practices for developing mindfulness of the body. In this context, the practice of mindfulness involves developing the ability to hold the attention in a sustained way on some aspect of our physical body, such as posture, lower abdomen or legs. The most commonly taught of these practices is mindfulness of breathing.

Mindfulness of the body progresses through two stages. To begin with, we are not aware of our actual body but only of a mentally projected version. In other words, what we *think* of as our body is exactly that, a mental picture based on concepts and projections, rather than the real thing. So to begin with we meditate on our mental version of our legs, our abdomen or our breath.

Let us take mindfulness of the rise and fall of the diaphragm in the lower abdomen as an example. One directs awareness to this part of the body, attending to the rise and fall on the out-breath and in-breath. As we practice, our attention touches our diaphragm, then flies off into thinking. Gently but persistently, we bring our awareness back to the abdomen. Though each day and each week will have its ups and downs, over the long haul, we notice an increased ability to sustain our attention on our object of meditation.

Up until now, this process has been like catching repeated glimpses of someone in a crowd. In such a situation, you can't really get to know the other in any real way. Through practice, however, we are able to hold our attention in the proximity of our abdomen for periods of time, and we begin to find out some interesting things. We

begin to notice that while we thought we were paying attention to our abdomen, we were not actually aware of the literal physical sensations of this part of our body. Instead, we were hovering above it, with some slightly abstract idea of what those sensations might be.

We begin to realize we have been holding on to a coherent picture of our abdomen that has little to do with the actual sensations lying beneath. In fact, we see that our coherent image is actually getting in the way of experiencing the literal, naked sensations of our body. Through attending mindfully to our abdomen, we find ourselves digging down through layer upon layer of mental covering.

As we do so, we feel we are coming closer to actually experiencing the sensations of the rise and fall of the diaphragm. But strangely enough, the closer we seem to get, the more intangible and incoherent the "sensations" become. They are constantly changing in location, intensity, temperature, duration and so on. And they don't present any kind of stable image. In fact, they don't present any image or profile of our abdomen at all. Beyond this, the more we attend to these sensations, the less confident we feel in identifying them even as "physical."

Mindfulness of Feelings

At this point, we may go to our mentor, feeling that we are stuck, and ask for help. He or she is likely to tell us, however, that we have moved into the second foundation of mindfulness, that of feeling. This second foundation involves developing mindfulness of energy. This energy is still physical in a sense, because it is viscerally felt. However, it is fluid and intangible rather than solid, concrete and fixed.

Here is the critical point: the energy that we are mindful of is not something different from the physical body, the object in the first foundation. In mindfulness of the feelings, we are still mindful of the body but it is now experienced on a deeper and more subtle level. We are still paying attention to the rise and fall of the diaphragm, but now we are finding that what we previously thought were physical sensations are in fact patterns of energy.

As in the practice of the first foundation, here there are two levels of experience. At first we may be paying attention to energies such as heat and cold. But as we attempt to attend to these feelings, we begin to realize that these are only analogies, because heat and cold already have concepts attached to them and thus have a strong mental component. The energy gradually begins to disclose itself as an elemental sensation we interpret as heat or cold. When you get right down to it, it just feels like intensity. The energy that we are to be mindful of is related to emotion, but it is emotion with the story line stripped away: it is the elemental quality behind fear or longing or anger. In this foundation, we are to attend just to the bare feeling of the energy.

We begin by paying attention, for example, to fear. We turn our attention to the feeling of fear, we look at it, we sense it, we enter into it. But the more we attend to this feeling, the less we seem to know what it is. The more intimately we make its acquaintance, the more what we call fear seems to be slipping away and we are left with something without a name and even without a face. The closer we come, the more we find ourselves looking *through* the fear into something else.

Mindfulness of Mind

This something else isn't anything at all. It is empty space, though space that is bright and lucid. This is the third foundation, mindfulness of empty space. It isn't that the energy has disappeared, but it is no longer the compelling object of meditation. It is as if we are gazing into vast space and this space is drenched, as Tulku Urgyen says, with sunlight. The sunlight is the energy that gives space a subtle demeanor, but it is the space that we are tuning into in this foundation. Most important, the object of the third foundation of mindfulness is still our body. It is just that now we experience our body on an even deeper and more subtle level. Ultimately, this body of ours is nothing but space, drenched with sunlight. Again, there are two levels in this practice. At first we may find ourselves gazing into empty space. And then, as we attend, we may suddenly find that there is no one looking: there is just space looking at itself.

Mindfulness of Dharmas

In one sense, the experience of this ultimate quality of our body is the end of the line—a "dead end," in Chˆgyam Trungpa Rinpoche's words. Within this space, however, things arise and disappear. In the fourth foundation, resting in the nowhere place of the third foundation, we now look back at our thinking that created so many obstacles for us in the first place. However, we don't latch on to thoughts and build on them as we did before. Now, we simply discover what they show themselves to be. Without our investment or maintenance, they appear abruptly and flash away into nothingness, without leaving a trace. As the Mahamudra tradition says, now thoughts show themselves as just expressions of space, momentary expressions of awareness that come and are gone in an instant.

We can see now why the Western denigration of the body as "just physical" and not spiritual is read within Buddhism as such a terrible mistake. Now the tantric injunction to respect, honor and revere the body makes sense. Now we comprehend Saraha's statement that within the body everything can be found. And now we can understand the meaning of the early Buddhist dictum that realization is attained by experiencing nirvana in the body.

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CHRONIC ILLNESS AND THE GOALS OF MEDICINE

BY

S. KAY TOOMBS

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As a person who has lived with multiple sclerosis for over twenty years, I am perhaps especially aware that, in spite of the undeniable advances achieved in modern medicine, something is amiss. The predominant focus of medical care and medical education (a focus that relies almost exclusively on understanding illness in terms of the biomedical model of disease) has been directed towards acute care with a corresponding emphasis on high technology treatment oriented towards cure and full restoration of function. This focus has profound implications for those of us living with chronic or terminal illness. If the end goal of medicine is conceived to be the complete restoration of health, then the suffering of those with chronic illness seems intractable and medicine has little to offer the person who is incurably ill. Given the narrowness of this goal, care that does not result in a cure of disease is devalued and considered to be a less than optimal "fall-back" position to be adopted only when all aggressive efforts to eradicate disease have failed.

This conception of medicine hampers even the most well intentioned efforts to care for the chronically ill. Given an acute model of illness, the attention of the health care professional is primarily on the physical manifestation of the disease state – the purpose of medical intervention being to eradicate the disease, thus returning the patient to a former state of health and well-being (a state characterized by living well without the presence of illness). The source of the threat is perceived to be external (an invading organism, a biochemical malfunction, a disease entity). In this model of disease is the enemy to be defeated and banished from the patient's body by whatever technological or pharmacological means are available.

This model is inappropriate in the context of chronic illness where disease cannot properly be conceived as an external and temporary threat. Rather, for the chronically ill, disease is an intrinsic element of one's way of being, a permanent feature of living. Since the complete restoration of physical well-being is not a possibility, the chronically ill must learn to live with disorder on an ongoing basis – the goal being to live well in spite of (rather than in the absence of) illness. The emphasis, therefore is not so much on confronting and vanquishing disease, as it is on integrating illness and transformed bodily being into one's daily life in a positive fashion. The nature of such a challenge requires a

professional and personal response that is different in kind from that posed by the temporary disruption of acute illness.

The goal of cure of disease conceptualizes treatment almost exclusively in terms of likely medical interventions. Such a treatment focus distracts attention from the need to address the existential predicament of the chronically ill patient – in particular, the life disruption that pervades routine daily activities, personal relationships, family life, work responsibilities, and social involvements. Furthermore, this emphasis leads to unrealistic expectations on the part of the chronically ill. There is an enormous pressure to "do" something – "doing " being equated with instituting measures such as drug therapy. This pressure on both patient and health care professional alike can lead to inappropriate treatment. The inevitable failure of such treatment (inevitable in the sense that there is no "magic bullet", no possibility of a complete restoration of health) leads to disappointment, frustration, and helplessness. In this connection, patients with incurable illness often feel "abandoned" by the medical profession since they are assured that "nothing can be done". Moreover, if cure is the goal, inability to cure is perceived by health professionals as failure – a perception that often leads them to withdraw from the dying and incurably ill.

Developments in medicine that have resulted in increasing specialization also fragment the medical care of the chronically ill. Severe chronic conditions often affect the body in a myriad of ways. For instance, as a person with central nervous system disease and a concurrent vascular disorder, at one time I was under the care of a neurologist, a urologist, a hematologist, a gastroenterologist, a gynecologist and a vascular surgeon (not to mention the numerous technologists associated with these professionals). Each specialist was focused on a different bodily mechanism, each was "in charge" of that portion of my body, but no one was "in charge" of the whole (in either the mechanistic or holistic sense) – except for me, of course, the one who felt least qualified for the job. Indeed, since these specialists did not agree with one another on the best course of action, I had the feeling that not only was my body the "battlefield" in terms of fighting disease processes, but the "war" was being waged on the professional front as well.

In any event, the prevailing emphasis on the physical pathology of the malfunctioning body, which is deeply rooted in the biomedical model of disease and exemplified in the specialization of the medical profession, adds to the patient's sense of loss of wholeness and loss of control. Moreover, to the extent that medicine sees its primary focus as the diseased body (or, more specifically, the diseased body part) the task addressing the emotional aspect of illness is - for the most part - considered peripheral to the more central aim of eradicating disease. Yet emotions such as fear, anxiety, anger, frustration, and loss of self-esteem are an integral element of the illness experience and a major source of suffering for patients. Furthermore, the reliance on technology in the diagnosis and treatment of disease, has resulted in a tendency on the part of health professionals to give greater credence to "objective" clinical data than to the sick person's actual experience – a circumstance that adds to the patient's sense of loss of personhood.

If medicine is adequately to address the needs of sick persons, its transcendent goal must be healing rather than curing disease – a goal that requires a shift away from the biomedical model of disease to one that focuses explicitly on the human experience of illness. By healing I mean the restoration of wholeness (a restoration which may include, but is not limited to, cure of that disease). "Wholeness" relates to the ability to preserve one's integrity as a person in the face of the many and varied disturbances in living that are necessarily caused by illness. In the context of chronic illness this means learning to live well in the presence (rather then absence) of physical or mental incapacity, recognizing that such disorder is a way of life. The goal of medicine must be to facilitate this process, to empower and enable the sick to live as fully as possible within whatever limitations are inevitable. In this respect it is crucial that "wholeness" not be equated simply with bodily integrity. Human flourishing cannot (and should not) be defined exclusively in terms of some ideal standard of physical well-being.

With respect to the task of healing, it is important to recognize the extent to which cultural and scientific definitions of health have significantly influenced the goals of medicine in the past and, to a large extent, continue to do so. In our society "health" is, for the most part, equated with complete physical or mental well-being. This societal view of what constitutes wellness carries with it the unrealistic expectation that cure, good health and happiness are a personal right. Given this view illness is an affront. There is the clear assumption that physical incapacity and wholeness are incompatible.

This assumption overtly manifests itself in the social perceptions of disability. When strangers look at me, what they see is the wheelchair. They make the immediate judgment that my quality of life is diminished and my situation is an essentially negative and unhappy one. In the first place, because my mobility is limited, strangers invariably conclude that my intellect must be likewise affected. For instance, in my presence, strangers usually address questions to my husband and refer to me in the third person – "What would SHE like to drink?" "Where would SHE like to sit?" Furthermore, people who do not know me believe that (since I cannot walk) I am largely dependent on others, and unable to engage in professional activities. (Recently I was invited to speak at a university. My presentation had been scheduled in one of the large biology lecture halls. The only way to get to the front of the room to present my lecture was to go down a long series of steps. My colleague tried to find a meeting place that was accessible for my wheelchair. However, the response was "but the lecture halls ARE handicapped accessible. There is a place for wheelchairs at the top on the back row" – the assumption obviously being that nobody in a wheelchair would ever need to be in front of the class!)

In this regard it has been my experience that the passage of the Americans With Disabilities Act, as important as it is, has done little to change attitudes towards those of us with disabilities. On a recent professional trip to New Orleans, for instance, a friend visited a very well known restaurant in the French Quarter to see if it was accessible for my wheelchair. The building was accessible. However, an employee at the restaurant made it very clear that people in wheelchairs were not welcome in their establishment and suggested we would be much more comfortable somewhere else.

Much of the initial terror I experienced on hearing the diagnosis of multiple sclerosis was due to the cultural meanings and negative stereotypes associated with physical disability. Diagnosis is permeated with personal and cultural meanings. The dread diseases – cancer, heart disease, AIDS - carry with them a particularly powerful symbolic significance. In living an illness one is forced to deal not simply with the physical symptoms of disease but to confront the meanings associated with the diagnosis – particularly with respect to the response of others. Any effort at preserving the integrity of personhood (healing) must overtly recognize the manner in which such meanings can (and do) shape the patient's experience of illness.

Another barrier to the preservation of wholeness in chronic illness is the overt emphasis in this culture on the importance of "doing" as opposed to "being" That is, a person's worth – more often than not - is judged according to his or her capacity to produce (to be useful) or the ability to achieve a certain professional status. When we say to our children "You can BE whatever you want to BE" what we invariable mean is "You will have opportunities to achieve worth by DOING" This emphasis on productivity bolsters the notion that the goal of medicine should be nothing less than the complete restoration of function. As activities become circumscribed in chronic illness, this cultural emphasis on the importance of "doing" directly contributes to the sick person's sense of loss of wholeness and diminished self worth.

Furthermore, the emphasis in this society on the importance of self-reliance and the ideal of complete autonomy may exacerbate the chronically ill person's feelings of diminished self-worth. Dependence on others is perceived as weakness. There is a strong cultural message that we should be able to look after ourselves, make our own decisions, run our own lives. This makes it particularly hard for the chronically ill and disabled to request assistance from others since loss of autonomy inevitably results in loss of self-esteem.

The "message" that we are (or should be) responsible for our own welfare also pervades the medical sphere. Physical fitness in this society is perceived not only as desirable but as a moral imperative. While I am in no way suggesting that physical fitness is not a desirable goal, I think we must be careful to insure that the focus on individual responsibility for health and prevention of disease does not unwittingly add to the suffering of the sick and further ostracize those with disabilities. If health and physical fitness are presumed to be synonymous, then those who fail to achieve or retain good health may feel they have done something to cause their illnesses and thus feel guilt about their condition. (As one physician put it, "It's bad enough having cancer without feeling you must have caused the damn thing!") A culture that places an extraordinarily high value on physical fitness also encourages the persistence of negative stereotypes with regard to the sick and those with disabilities.

With respect to the relation between personal responsibility and illness, it should be noted that one of the consequences of technology-dominated medicine, an acute model of disease and an overriding emphasis on cure, is that the sick (in construing their bodies in largely mechanistic terms) are more likely to give up personal control and "hand over" their bodies to medical experts on a temporary basis with the expectation that the body

will be "fixed" and returned to them in good working order. In chronic illness, however, the patient has to retain a large measure of responsibility since most medical treatments are long-term and must be carried our by the patient – not in the hospital but in the home. Indeed, studies have shown that chronically ill patients are much less likely to relinquish control over their bodies than are acute patients.

Medical research and advances that involve the "enhancement of healthy human capacities" (such as the Human Genome Project and development in pharmacology) also underscore the need to address carefully the question of how we can both affirm the worth of persons with disabilities and (at one and the same time) work to eradicate physical anomalies. This dilemma has been poignantly expressed by the mother of a child with cerebral palsy. In her diary she writes of her decision not to allow her five year old son to be the March of Dimes poster child. She has been told that the money collected will not go for treatment or other programs that the children need; rather it will be used for "research to prevent prematurity, birth defects, and other health problems with which the children were born". I'm sorry, she tells the inquirer, "but I don't feel comfortable telling my son that he is doing this to prevent other children like him. We're trying to help him understand where he fits into a world that is often more confused than he is about his problems. I can't put him out there as something to prevent." (Curry, IN PRESS). Should our efforts be aimed almost exclusively at the prevention of physical anomalies, or should we give equal attention to societal barriers, policies, activities, that directly cause those with different physical capabilities to be dis-abled. With respect to research, should there be a more equitable balance between the amount of resources directed towards prevention and those aimed at addressing physical and social needs engendered by disabling conditions? Does the very notion of "enhancing healthy human capacities" presuppose a certain understanding of what constitutes health. That is, does such a notion necessarily equate human health with complete physical and mental well being – an equation that inevitably devalues those living with the mental and physical incapacities?

Relief of suffering is central to the goal of healing. In this respect it is crucial to emphasize that suffering is NOT to be equated with pain or clinical distress. Suffering is a direct reflection of the particular meanings that this illness has now for the person who is sick. Not only is it the case that symptoms that cause suffering to one patient may be inconsequential to another, but the meanings that illness has for the same individual invariably change over time. In the case of chronic illness, the causes of suffering at one point in the illness will differ from those identified at another point in time. (For example, the significance of loss of mobility is much less important to me now than it was at the time of my diagnosis. Other issues are now more pressing.) It is, perhaps important to note here that, just as chronic illness is itself a process that evolves over time, so the relief of suffering (and the task of healing) in chronic illness is an ongoing process rather than a one-time event. The person who lives with progressively degenerative disease, for instance faces new and significant losses on a regular basis. The challenge of preserving the integrity of the self is one that must be faced again and again. Each additional loss threatens to dissipate the wholeness that has been achieved. The task of healing, then, involves confronting the challenge of new losses and new

sources of suffering, as they occur. If the health care professional is to assist the patient in this ongoing challenge, he or she must endeavor to understand the patient's meanings. What significance does a symptom or diagnosis have in the context of this particular individual's life? What meanings does this person bring to their illness? What concrete difficulties does it present in daily living? What emotions accompany this particular bodily disorder? Rather than focusing on the disease process as it manifests itself in the body of the patient, the healer must focus directly on the impact of illness on the life that is lived in that body.

One concrete way to ameliorate suffering in chronic illness is, of course, to control those physical symptoms that cause significant distress to the patient. With the prevailing emphasis on cure of disease, however the task of symptom management is – more often than not – conceived exclusively in terms of some kind of medical intervention such as drug therapy. The problem with this approach in the case of incurable illness, is that, if drug therapy is ineffective, the patient feels that the situation is totally out of control and nothing can be done. Yet this ignores important alternatives, one of which I shall call the "pragmatic" approach to symptom management. It has been my experience that, even if a symptom cannot be medically controlled, the patient (in consultation with the health care professional) can develop strategies to counteract the life disruption is causes. This is the case with even the most intractable and difficult symptoms. I think for example, of the loss of bladder control (perhaps one of the most distressing effects of disorders of the central nervous system) where simple steps such as changes in daily routine, attention to intake of fluids, heightened awareness of bodily sensation, and so forth, can assist the patient to cope with this bodily disorder. Developing strategies to manage symptoms effectively puts the patient back in control and allows him or her to integrate the bodily disorder into daily living. However, as numerous published illness narratives indicate, given medicine's present focus on the disease process, as opposed to the human experience of illness, this "pragmatic" approach is often overlooked. (Dr. DeWitt Stetten's well-know piece in The New England Journal of Medicine, for example, related how none of the eminent physicians he consulted during a fifteen year battle with macular degeneration gave him any advice with regard to practical steps he could take to "stem the deterioration" in the quality of his life. For that information he had to go outside medicine – to those who themselves had impaired vision. As he pointed out, it is not that the specialists he consulted were insensitive. It was simply that they did not believe that understanding the meaning of blindness was necessary for the care of patients (Stetten, 1981.)

As important as symptom management is in chronic illness, relief of suffering does not require (nor should it be equated with) restoring physical function to some perceived level of "normality." Suffering is relieved to the extent that patients can learn to integrate bodily disorder and physical incapacity into their lives, to accommodate to a different way of being. For example in my own case, living a meaningful life does not depend upon restoring my ability to walk. What is more important is exploring concrete ways in which I can preserve existing function and compensate for loss of mobility (using a wheelchair, scooter and so forth).

With respect to the distinction between physical pain and suffering as it relates to healing, one might think that this distinction has been sufficiently well made in the literature that the two are no longer equated. However, I notice there are still many health care professionals and ethicists who seem not to make the distinction. For instance, in the ongoing debate on assisted suicide the point is still vigorously being argued that adequate pain control, in and of itself, will solve the problem of suffering. Regardless of one's position in this particular ethical debate, it is clear that not all patients who seek to terminate their lives do so in order to relieve unbearable physical pain. One notes, for instance, that several individuals who committed suicide with Kevorkian's assistance did so because they suffered from chronic, progressively degenerative neurological diseases where pain was not an issue but for whom such losses as loss of dignity, loss of freedom to act, loss of important relationships, and loss of purpose rendered life meaningless. Indeed, it is my feeling that patients who suffer from severely incapacitating neurological diseases, and not the terminally ill, are the really "hard cases" in debates on assisted suicide and euthanasia. These are the patients who provide the greatest challenge in terms of relief of suffering and the possibility of healing.

The shift from cure of disease to the goal of healing illustrates in a powerful way the need for health care professionals to be more than technicians. Indeed, the goal of preserving the integrity of personhood renders explicit the crucial importance and therapeutic value of the relationship between the one who professes to heal and the person who seeks assistance in the healing endeavor. This relationship, in and of itself, is a most (if not the most) potent form of therapy for the incurably ill. Aside from professional competence (which is a given), the central component of the healing relationship is effective communication. Effective communication requires several things on the part of the healer: attentive listening, a commitment to the importance of understanding the patient's sense of disorder, a willingness to use one's powers of imagination to attempt, as much as is possible, to see the world through the eyes of the sick.

Effective communication accomplishes several important functions that are integral to healing: Firstly, it reduces the chronically ill person's sense of isolation. Existential aloneness is necessarily a part of serious illness. It is vital for chronically ill and dying patients to feel that they are not "medically" alone, that they have not been abandoned as "incurable" and therefore, beyond help. What patients often need most is someone who is not personally involved in their life situation to accompany, to be with them on the journey that is their illness. While health professionals do not (and cannot) have all the answers, they are in a unique position to be present as sick people confront the most profound and difficult existential questions.

Effective communication is a form of enablement and empowerment. Through dialogue concrete fears, everyday difficulties, emotional issues can be identified and strategies devised to deal with them (thus enabling the sick person to regain control and empowering him or her to strive in the face of difficulty).

Most importantly effective dialogue can keep alive the energizing power of hope. The dynamics of hoping is different in chronic, as apposed to acute illness. In chronic illness the choice between hope and despair is a choice that must be made not once but every day. Hope cannot primarily be related to cure of disease. Nevertheless, to be seriously, chronically ill is not be hope-less. In incurable illness hope relates to the ability to face forthrightly and with courage whatever comes one's way. In assuring the sick person that the future is manageable and the present negotiable, the therapist can bolster the capacity for hope. This is not an empty assurance. Rather it is a matter of clarifying the extent of the patient's disorder, negotiating with the illness and assisting the patient to work towards the project of living well in spite of illness. To live well in spite of illness, to affirm life in the face of difficulty, is to be whole. To be whole is to be healed.

In emphasizing the importance of dialogue and the power of the therapeutic relationship as it relates to the goal of healing, I want to make absolutely sure that I am not misunderstood. This relationship, this activity, is not to be discounted as something that is of importance only when efforts to cure disease fail. Nor is it to be equated with a "good bedside manner," nor relegated to the "art" as opposed to the "science" of medicine. My contention – a contention that is based on over twenty years personal experience of living with incurable illness and working with a variety of health care professionals, and one that is drawn from my philosophical reflections on the phenomenology of illness – is that without this kind of relationship with its concerted focus on the patient's experience, healing is unlikely to occur.

Redefining the goals of medicine in terms of healing and a broadened understanding of what is involved in the relief of suffering will require a major change in the education of physicians and other health care professionals. On both a conceptual and practical level, it will require that medical educators give as much credence to the phenomenology of illness, as they do to the clinical model of disease. Unless students are convinced that good medical care requires them to pay explicit attention to the experience of illness (and that this task is as important as identifying clinical pathology), they will regard the patient's personal story as a relatively unimportant footnote of the medical chart. Indeed, I am becoming increasingly convinced that, as long as the biomedical model of disease is taken to be the complete and only truly scientific paradigm, all attempts to redefine the goals of medicine and to "humanize" medical care will have only limited success. Although efforts, such as offering humanities courses in medical school, selecting medical students who have a broad humanities background, and teaching students how to communicate effectively with patients, are undeniably important, they are not sufficient (in and of themselves) to counteract the reductionistic tendencies implicit in the biomedical model. An important goal for medicine, therefore, is to develop a theoretical model of illness that places the human experience of illness at the center, rather than at the periphery, of our understanding of physical and mental disorder.

If the transcendent goal of medicine is to shift from cure of disease to healing, it will also be necessary to broaden the context of medical training. At the present time such training is almost exclusively limited to the setting of large teaching hospitals. However, patients (including the chronically and terminally ill) are, more often than not, admitted to

hospitals only in times of acute crisis. The overriding focus on hospitalized patients gives students a restricted view of the goals of medicine. All students (regardless of their interest in future specialization) should be routinely required to spend time in medical settings other than the hospital. For example, as a regular part of their training, students should care for hospice patients and work with professionals engaged in the everyday, ongoing care of the chronically ill.

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SPECIAL ARTICLE

THE NATURE OF SUFFERING AND THE GOALS OF MEDICINE

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Abstract The question of suffering and its relation to organic illness has rarely been addressed in the medical literature. This article offers a description of the nature and causes of suffering in patients undergoing medical treatment. A distinction based on clinical observations is made between suffering and physical distress. Suffering is experienced by persons, not merely by bodies, and has its source in challenges that threaten the intactness of the person as a complex social and psychological entity. Suffering can include physical pain but is by no means limited to it. The relief of suffering and the cure of disease must be seen as twin obligations of a medical profession that is truly dedicated to the care of the sick. Physicians' failure to understand the nature of suffering can result in medical intervention that (though technically adequate) not only fails to relieve suffering but becomes a source of suffering itself. (N Engl J Med. 1982; 306:639-45.)

THE obligation of physicians to relieve human suffering stretches back into antiquity. Despite this fact, little attention is explicitly given to the problem of suffering in medical education, research, or practice. I will begin by focusing on a modern paradox: Even in the best settings and with the best physicians, it is not uncommon for suffering to occur not only during the course of a disease but also as a result of its treatment. To understand this paradox and its resolution requires an understanding of what suffering is and how it relates to medical care.

Consider this case: A 35-year-old sculptor with metastatic disease of the breast was treated by competent physicians employing advanced knowledge and technology and acting out of kindness and true concern. At every stage, the treatment as well as the disease was a source of suffering to her. She was uncertain and frightened about her future, but she could get little information from her physicians, and what she was told was not always the truth. She had been unaware, for example, that the irradiated breast would be so disfigured. After an oophorectomy and a regimen of medications, she became hirsute, obese, and devoid of libido. With tumor in the supraclavicular fossa, she lost strength in the hand that she had used in sculpturing, and she became profoundly depressed. She had a pathologic fracture of the femur, and treatment was delayed while her physicians openly disagreed about pinning her hip.

Each time her disease responded to therapy and her hope was rekindled, a new manifestation would appear. Thus, when a new course of chemotherapy was started, she was torn between a desire to live and the fear that allowing hope to emerge again would merely expose her to misery if the treatment failed. The nausea and vomiting from the chemotherapy were distressing, but no more so than the anticipation of hair loss. She feared the future. Each tomorrow was seen as heralding increased sickness, pain, or disability, never as the beginning of better times. She felt isolated because she was no longer like other people and could not do what other people did. She feared that her friends would stop visiting her. She was sure that she would die.

This young woman had severe pain and other physical symptoms that caused her suffering. But she also suffered from some threats that were social and from others that were personal and private. She suffered from the effects of the disease and its treatment on her appearance and abilities. She also suffered unremittingly from her perception of the future.

What can this case tell us about the ends of medicine and the relief of suffering? Three facts stand out: The first is that this woman's suffering was not confined to her physical symptoms. The second is that she suffered not only from her disease but also from its treatment. The third is that one could not anticipate what she would describe as a source of suffering; like

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other patients, she had to be asked. Some features of her condition she would call painful, upsetting, uncomfortable, and distressing, but not a source of suffering. In these characteristics her case was ordinary.

In discussing the matter of suffering with lay persons, I learned that they were shocked to discover that the problem of suffering was not directly addressed in medical education. My colleagues of a contemplative nature were surprised at how little they knew of the problem and how little thought they had given it, whereas medical students tended to be unsure of the relevance of the issue to their work.

The relief of suffering, it would appear, is considered one of the primary ends of medicine by patients and lay persons, but not by the medical profession. As in the care of the dying, patients and their friends and families do not make a distinction between physical and nonphysical sources of suffering in the same way that doctors do.[1]

A search of the medical and social-science literature did not help me in understanding what suffering is; the word "suffering" was most often coupled with the word "pain," as in "pain and suffering." (The data bases used were *Psychological Abstracts*, the *Citation Index*, and the *Index Medicus*.)

This phenomenon reflects a historically constrained and currently inadequate view of the ends of medicine. Medicine's traditional concern primarily for the body and for physical disease is well known, as are the widespread effects of the mind-body dichotomy on medical theory and practice. I believe that this dichotomy itself is a source of the paradoxical situation in which doctors cause suffering in their care of the sick. Today, as ideas about the separation of mind and body are called into question, physicians are concerning themselves with new aspects of the human condition. The profession of medicine is being pushed and pulled into new areas, both by its technology and by the demands of its patients. Attempting to understand what suffering is and how physicians might truly be devoted to its relief will require that medicine and its critics overcome the dichotomy between mind and body and the associated dichotomies between subjective and objective and between person and object.

In the remainder of this paper I am going to make three points. The first is that suffering is experienced by persons. In the separation between mind and body, the concept of the person, or personhood, has been associated with that of mind, spirit, and the subjective. However, as I will show, a person is not merely mind, merely spiritual, or only subjectively knowable. Personhood has many facets, and it is ignorance of them that actively contributes to patients' suffering. The understanding of the place of the person in human illness requires a rejection of the historical dualism of mind and body.

The second point derives from my interpretation of clinical observations: Suffering occurs when an impending destruction of the person is perceived; it continues until the threat of disintegration has passed or until the integrity of the person can be restored in some other manner. It follows, then, that although suffering often occurs in the presence of acute pain, shortness of breath, or other bodily symptoms, suffering extends beyond the physical. Most generally, suffering can be defined as the state of severe distress associated with events that threaten the intactness of the person.

The third point is that suffering can occur in relation to any aspect of the person, whether it is in the realm of social roles, group identification, the relation with self, body, or family, or the relation with a transpersonal, transcendent source of meaning. Below is a simplified description or "topology" of the constituents of personhood.

"Person" Is Not "Mind"

The split between mind and body that has so deeply influenced our approach to medical care was proposed by Descartes to resolve certain philosophical issues. Moreover, Cartesian dualism made it possible for science to escape the control of the church by assigning the noncorporeal, spiritual realm to the church, leaving the physical world as the domain of science. In that religious age, "person," synonymous with "mind," was necessarily off limits to science.

Changes in the meaning of concepts like that of personhood occur with changes in society, while the word for the concept remains the same. This fact tends to obscure the depth of the transformations that have occurred between the 17th century and today. People simply *are* "persons" in this time, as in past times, and they have difficulty imagining that the term described something quite different in an earlier period when the concept was more constrained.

If the mind-body dichotomy results in assigning the body to medicine, and the person is not in that category, then the only remaining place for the person is in the category of mind. Where the mind is problematic (not identifiable in objective terms), its very reality diminishes for science, and so, too, does that of the person. Therefore, so long as the mind-body dichotomy is accepted, suffering is either subjective and thus not truly "real" — not within medicine's domain — or identified exclusively with bodily pain. Not only is such an identification misleading and distorting, for it depersonalizes the sick patient, but it is itself a source of suffering. It is not possible to treat sickness as something that happens solely to the body without thereby risking damage to the person. An anachronistic division of the human condition into what is medical (having to do with the body) and what is nonmedical (the remainder) has given medicine too narrow a notion of its calling. Because of this division, physicians may, in concentrating on the cure of bodily disease, do things that cause the patient as a person to suffer.

An Impending Destruction of Person

Suffering is ultimately a personal matter. Patients sometimes report suffering when one does not expect it, or do not report suffering when one does expect it.

Furthermore, a person can suffer enormously at the distress of another, especially a loved one.

In some theologies, suffering has been seen as bringing one closer to God. This "function" of suffering is at once its glorification and its relief. If, through great pain or deprivation, someone is brought closer to a cherished goal, that person may have no sense of having suffered but may instead feel enormous triumph. To an observer, however, only the deprivation may be apparent. This cautionary note is important because people are often said to have suffered greatly, in a religious context, when they are known only to have been injured, tortured, or in pain, not to have suffered.

Although pain and suffering are closely identified in the medical literature, they are phenomenologically distinct.[2] The difficulty of understanding pain and the problems of physicians in providing adequate relief of physical pain are well known.[3-5]

The greater the pain, the more it is believed to cause suffering. However, some pain, like that of childbirth, can be extremely severe and yet considered rewarding. The perceived meaning of pain influences the amount of medication that will be required to control it. For example, a patient reported that when she believed the pain in her leg was sciatica, she could control it with small doses of codeine, but when she discovered that it was due to the spread of malignant disease, much greater amounts of medication were required for relief. Patients can writhe in pain from kidney stones and by their own admission not be suffering, because they "know what it is"; they may also report considerable suffering from apparently minor discomfort when they do not know its source. Suffering in close relation to the intensity of pain is reported when the pain is virtually overwhelming, such as that associated with a dissecting aortic aneurysm. Suffering is also reported when the patient does not believe that the pain can be controlled. The suffering of patients with terminal cancer can often be relieved by demonstrating that their pain truly can be controlled; they will then often tolerate the same pain without any medication, preferring the pain to the side effects of their analgesics. Another type of pain that can be a source of suffering is pain that is not overwhelming but continues for a very long time.

In summary, people in pain frequently report suffering from the pain when they feel out of control, when the pain is overwhelming, when the source of the pain is unknown, when the meaning of the pain is dire, or when the pain is chronic.

In all these situations, persons perceive pain as a threat to their continued existence — not merely to their lives, but to their integrity as persons. That this is the relation of pain to suffering is strongly suggested by the fact that suffering can be relieved, in the presence of continued pain, by making the source of the pain known, changing its meaning, and demonstrating that it can be controlled and that an end is in sight.

It follows, then, that suffering has a temporal element. In order for a situation to be a source of suffering, it must influence the person's perception of future events. ("If the pain continues like this, I *will be* overwhelmed"; "If the pain comes from cancer, I *will* die"; "If the pain cannot be controlled, I *will not* be able to take it.") At the moment when the patient is saying, "If the pain continues like this, I will be overwhelmed," he or she is not overwhelmed. Fear itself always involves the future. In the case with which I opened this paper, the patient could not give up her fears of her sense of future, despite the agony they caused her. As suffering is discussed in the other dimensions of personhood, note how it would not exist if the future were not a major concern.

Two other aspects of the relation between pain and suffering should be mentioned. Suffering can occur when physicians do not validate the patient's pain. In the absence of disease, physicians may suggest that the pain is "psychological" (in the sense of not being real) or that the patient is "faking." Similarly, patients with chronic pain may believe after a time that they can no longer talk to others about their distress. In the former case the person is caused to distrust his or her perceptions of reality, and in both instances social isolation adds to the person's suffering.

Another aspect essential to an understanding of the suffering of sick persons is the relation of meaning to the way in which illness is experienced. The word "meaning" is used here in two senses. In the first, to mean is to signify, to imply. Pain in the chest may imply heart disease. We also say that we know what something means when we know how important it is. The importance of things is always personal and individual, even though meaning in this sense may be shared by others or by society as a whole. What something signifies and how important it is relative to the whole array of a person's concerns contribute to its personal meaning. "Belief" is another word for that aspect of meaning concerned with implications, and "value" concerns the degree of importance to a particular person.

The personal meaning of things does not consist exclusively of values and beliefs that are held intellectually; it includes other dimensions. For the same word, a person may simultaneously have a cognitive meaning, an affective or emotional meaning, a bodily meaning, and a transcendent or spiritual meaning. And there may be contradictions in the different levels of meaning. The nuances of personal meaning are complex, and when I speak of personal meanings I am implying this complexity in all its depth — known and unknown. Personal meaning is a fundamental dimension of personhood, and there can be no understanding of human illness or suffering without taking it into account.

A Simplified Description of the Person

A simple topology of a person may be useful in understanding the relation between suffering and the goals of medicine. The features discussed below point

the way to further study and to the possibility of specific action by individual physicians.

Persons have personality and character. Personality traits appear within the first few weeks of life and are remarkably durable over time. Some personalities handle some illnesses better than others. Individual persons vary in character as well. During the heyday of psychoanalysis in the 1950s, all behavior was attributed to unconscious determinants: No one was bad or good; they were merely sick or well. Fortunately, that simplistic view of human character is now out of favor. Some people do in fact have stronger characters and bear adversity better. Some are good and kind under the stress of terminal illness, whereas others become mean and offensive when even mildly ill.

A person has a past. The experiences gathered during one's life are a part of today as well as yesterday. Memory exists in the nostrils and the hands, not only in the mind. A fragrance drifts by, and a memory is evoked. My feet have not forgotten how to roller-skate, and my hands remember skills that I was hardly aware I had learned. When these past experiences involve sickness and medical care, they can influence present illness and medical care. They stimulate fear, confidence, physical symptoms, and anguish. It damages people to rob them of their past and deny their memories, or to mock their fears and worries. A person without a past is incomplete.

Life experiences — previous illness, experiences with doctors, hospitals, and medications, deformities and disabilities, pleasures and successes, miseries and failures — all form the nexus for illness. The personal meaning of the disease and its treatment arises from the past as well as the present. If cancer occurs in a patient with self-confidence from past achievements, it may give rise to optimism and a resurgence of strength. Even if it is fatal, the disease may not produce the destruction of the person but, rather, reaffirm his or her indomitability. The outcome would be different in a person for whom life had been a series of failures.

The intensity of ties to the family cannot be overemphasized; people frequently behave as though they were physical extensions of their parents. Events that might cause suffering in others may be borne without complaint by someone who believes that the disease is part of his or her family identity and hence inevitable. Even diseases for which no heritable basis is known may be borne easily by a person because others in the family have been similarly afflicted. Just as the person's past experiences give meaning to present events, so do the past experiences of his or her family. Those meanings are part of the person.

A person has a cultural background. Just as a person is part of a culture and a society, these elements are part of the person. Culture defines what is meant by masculinity or femininity, what attire is acceptable, attitudes toward the dying and sick, mating behavior, the height of chairs and steps, degrees of tolerance for odors and excreta, and how the aged and the disabled are treated. Cultural definitions have an enormous impact on the sick and can be a source of untold suffering. They influence the behavior of others toward the sick person and that of the sick toward themselves. Cultural norms and social rules regulate whether someone can be among others or will be isolated, whether the sick will be considered foul or acceptable, and whether they are to be pitied or censured.

Returning to the sculptor described earlier, we know why that young woman suffered. She was housebound and bedbound, her face was changed by steroids, she was masculinized by her treatment, one breast was scarred, and she had almost no hair. The degree of importance attached to these losses — that aspect of their personal meaning — is determined to a great degree by cultural priorities.

With this in mind, we can also realize how much someone devoid of physical pain, even devoid of "symptoms," may suffer. People suffer from what they have lost of themselves in relation to the world of objects, events, and relationships. We realize, too, that although medical care can reduce the impact of sickness, inattentive care can increase the disruption caused by illness.

A person has roles. I am a husband, a father, a physician, a teacher, a brother, an orphaned son, and an uncle. People are their roles, and each role has rules. Together, the rules that guide the performance of roles make up a complex set of entitlements and limitations of responsibility and privilege. By middle age, the roles may be so firmly set that disease can lead to the virtual destruction of a person by making the performance of his or her roles impossible. Whether the patient is a doctor who cannot doctor or a mother who cannot mother, he or she is diminished by the loss of function.

No person exists without others; there is no consciousness without a consciousness of others, no speaker without a hearer, and no act, object, or thought that does not somehow encompass others.[6] All behavior is or will be involved with others, even if only in memory or reverie. Take away others, remove sight or hearing, and the person is diminished. Everyone dreads becoming blind or deaf, but these are only the most obvious injuries to human interaction. There are many ways in which human beings can be cut off from others and then suffer the loss.

It is in relationships with others that the full range of human emotions finds expression. It is this dimension of the person that may be injured when illness disrupts the ability to express emotion. Furthermore, the extent and nature of a sick person's relationships influence the degree of suffering from a disease. There is a vast difference between going home to an empty apartment and going home to a network of friends and family after hospitalization. Illness may occur in one partner of a long and strongly bound marriage or in a union that is falling apart. Suffering from the loss of

sexual function associated with some diseases will depend not only on the importance of sexual performance itself but also on its importance in the sick person's relationships.

A person is a political being. A person is in this sense equal to other persons, with rights and obligations and the ability to redress injury by others and the state. Sickness can interfere, producing the feeling of political powerlessness and lack of representation. Persons who are permanently handicapped may suffer from a feeling of exclusion from participation in the political realm.

Persons do things. They act, create, make, take apart, put together, wind, unwind, cause to be, and cause to vanish. They know themselves, and are known, by these acts. When illness restricts the range of activity of persons, they are not themselves.

Persons are often unaware of much that happens within them and why. Thus, there are things in the mind that cannot be brought to awareness by ordinary reflection. The structure of the unconscious is pictured quite differently by different scholars, but most students of human behavior accept the assertion that such an interior world exists. People can behave in ways that seem inexplicable and strange even to themselves, and the sense of powerlessness that the person may feel in the presence of such behavior can be a source of great distress.

Persons have regular behaviors. In health, we take for granted the details of our day-to-day behavior. Persons know themselves to be well as much by whether they behave as usual as by any other set of facts. Patients decide that they are ill because they cannot perform as usual, and they may suffer the loss of their routine. If they cannot do the things that they identify with the fact of their being, they are not whole.

Every person has a body. The relation with one's body may vary from identification with it to admiration, loathing, or constant fear. The body may even be perceived as a representation of a parent, so that when something happens to the person's body it is as though a parent were injured. Disease can so alter the relation that the body is no longer seen as a friend but, rather, as an untrustworthy enemy. This is intensified if the illness comes on without warning, and as illness persists, the person may feel increasingly vulnerable. Just as many people have an expanded sense of self as a result of changes in their bodies from exercise, the potential exists for a contraction of this sense through injury to the body.

Everyone has a secret life. Sometimes it takes the form of fantasies and dreams of glory; sometimes it has a real existence known to only a few. Within the secret life are fears, desires, love affairs of the past and present, hopes, and fantasies. Disease may destroy not only the public or the private person but the secret person as well. A secret beloved friend may be lost to a sick person because he or she has no legitimate place by the sickbed. When that happens, the patient may have lost the part of life that made tolerable an otherwise embittered existence. Or the loss may be only of a dream, but one that might have come true. Such loss can be a source of great distress and intensely private pain.

Everyone has a perceived future. Events that one expects to come to pass vary from expectations for one's children to a belief in one's creative ability. Intense unhappiness results from a loss of the future — the future of the individual person, of children, and of other loved ones. Hope dwells in this dimension of existence, and great suffering attends the loss of hope.

Everyone has a transcendent dimension, a life of the spirit. This is most directly expressed in religion and the mystic traditions, but the frequency with which people have intense feelings of bonding with groups, ideals, or anything larger and more enduring than the person is evidence of the universality of the transcendent dimension. The quality of being greater and more lasting than an individual life gives this aspect of the person its timeless dimension. The profession of medicine appears to ignore the human spirit. When I see patients in nursing homes who have become only bodies, I wonder whether it is not their transcendent dimension that they have lost.

The Nature of Suffering

For purposes of explanation, I have outlined various parts that make up a person. However, persons cannot be reduced to their parts in order to be better understood. Reductionist scientific methods, so successful in human biology, do not help us to comprehend whole persons. My intent was rather to suggest the complexity of the person and the potential for injury and suffering that exists in everyone. With this in mind, any suggestion of mechanical simplicity should disappear from my definition of suffering. All the aspects of personhood — the lived past, the family's lived past, culture and society, roles, the instrumental dimension, associations and relationships, the body, the unconscious mind, the political being, the secret life, the perceived future, and the transcendent dimension — are susceptible to damage and loss.

Injuries to the integrity of the person may be expressed by sadness, anger, loneliness, depression, grief, unhappiness, melancholy, rage, withdrawal, or yearning. We acknowledge the person's right to have and express such feelings. But we often forget that the affect is merely the outward expression of the injury, not the injury itself. We know little about the nature of the injuries themselves, and what we know has been learned largely from literature, not medicine.

If the injury is sufficient, the person suffers. The only way to learn what damage is sufficient to cause suffering, or whether suffering is present, is to ask the sufferer. We all recognize certain injuries that almost invariably cause suffering: the death or distress of loved ones, powerlessness, helplessness, hopelessness, torture, the loss of a life's work, betrayal, physical agony, isolation, homelessness, memory failure, and

fear. Each is both universal and individual. Each touches features common to all of us, yet each contains features that must be defined in terms of a specific person at a specific time. With the relief of suffering in mind, however, we should reflect on how remarkably little is known of these injuries.

The Amelioration of Suffering

One might inquire why everyone is not suffering all the time. In a busy life, almost no day passes in which one's intactness goes unchallenged. Obviously, not every challenge is a threat. Yet I suspect that there is more suffering than is known. Just as people with chronic pain learn to keep it to themselves because others lose interest, so may those with chronic suffering.

There is another reason why every injury may not cause suffering. Persons are able to enlarge themselves in response to damage, so that instead of being reduced, they may indeed grow. This response to suffering has encouraged the belief that suffering is good for people. To some degree, and in some persons, this may be so. If a leg is injured so that an athlete cannot run again, the athlete may compensate for the loss by learning another sport or mode of expression. So it is with the loss of relationships, loves, roles, physical strength, dreams, and power. The human body may lack the capacity to gain a new part when one is lost, but the person has it.

The ability to recover from loss without succumbing to suffering is sometimes called resilience, as though nothing but elastic rebound were involved, but it is more as though an inner force were withdrawn from one manifestation of a person and redirected to another. If a child dies and the parent makes a successful recovery, the person is said to have "rebuilt" his or her life. The term suggests that the parts of the person are structured in a new manner, allowing expression in different dimensions. If a previously active person is confined to a wheelchair, intellectual pursuits may occupy more time.

Recovery from suffering often involves help, as though people who have lost parts of themselves can be sustained by the personhood of others until their own recovers. This is one of the latent functions of physicians: to lend strength. A group, too, may lend strength: Consider the success of groups of the similarly afflicted in easing the burden of illness (e.g., women with mastectomies, people with ostomies, and even the parents or family members of the diseased).

Meaning and transcendence offer two additional ways by which the suffering associated with destruction of a part of personhood is ameliorated. Assigning a meaning to the injurious condition often reduces or even resolves the suffering associated with it. Most often, a cause for the condition is sought within past behaviors or beliefs. Thus, the pain or threat that causes suffering is seen as not destroying a part of the person, because it is part of the person by virtue of its origin within the self. In our culture, taking the blame for harm that comes to oneself because of the unconscious mind serves the same purpose as the concept of karma in Eastern theologies; suffering is reduced when it can be located within a coherent set of meanings. Physicians are familiar with the question from the sick, "Did I do something that made this happen?" It is more tolerable for a terrible thing to happen because of something that one has done than it is to be at the mercy of chance.

Transcendence is probably the most powerful way in which one is restored to wholeness after an injury to personhood. When experienced, transcendence locates the person in a far larger landscape. The sufferer is not isolated by pain but is brought closer to a transpersonal source of meaning and to the human community that shares those meanings. Such an experience need not involve religion in any formal sense; however, in its transpersonal dimension, it is deeply spiritual. For example, patriotism can be a secular expression of transcendence.

When Suffering Continues

But what happens when suffering is not relieved? If suffering occurs when there is a threat to one's integrity or a loss of a part of a person, then suffering will continue if the person cannot be made whole again. Little is known about this aspect of suffering. Is much of what we call depression merely unrelieved suffering? Considering that depression commonly follows the loss of loved ones, business reversals, prolonged illness, profound injuries to self-esteem, and other damages to personhood, the possibility is real. In many chronic or serious diseases, persons who "recover" or who seem to be successfully treated do not return to normal function. They may never again be employed, recover sexual function, pursue career goals, reestablish family relationships, or reenter the social world, despite a physical cure. Such patients may not have recovered from the nonphysical changes occurring with serious illness. Consider the dimensions of personhood described above, and note that each is threatened or damaged in profound illness. It should come as no surprise, then, that chronic suffering frequently follows in the wake of disease.

The paradox with which this paper began — that suffering is often caused by the treatment of the sick — no longer seems so puzzling. How could it be otherwise, when medicine has concerned itself so little with the nature and causes of suffering? This lack is not a failure of good intentions. None are more concerned about pain or loss of function than physicians. Instead, it is a failure of knowledge and understanding. We lack knowledge, because in working from a dichotomy contrived within a historical context far from our own, we have artificially circumscribed our task in caring for the sick.

Attempts to understand all the known dimensions of personhood and their relations to illness and suffering present problems of staggering complexity. The problems are no greater, however, than those initially posed by the question of how the body works — a

question that we have managed to answer in extraordinary detail. If the ends of medicine are to be directed toward the relief of human suffering, the need is clear.

I am indebted to Rabbi Jack Bemporad, to Drs. Joan Cassell, Peter Dineen, Nancy McKenzie, and Richard Zaner, to Ms. Dawn McGuire, to the members of the Research Group on Death, Suffering, and Well-Being of The Hastings Center for their advice and assistance, and to the Arthur Vining Davis Foundations for support of the research group.

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MEDICAL PROGRESS

APLASTIC ANEMIA

(First of Two Parts)

Pathogenesis, Diagnosis, Treatment, and Prognosis

BRUCE M. CAMITTA, M.D., RAINER STORB, M.D., AND E. DONNALL THOMAS, M.D.

APLASTIC anemia was first described by Ehrlich in 1888. It is not a single disease but, rather, a group of disorders characterized by peripheral-blood pancytopenia, variable bone-marrow hypocellularity, and the absence of underlying malignant or myeloproliferative disease. "Aplastic pancytopenia" would be a more accurate name, but Chauffard's original term has persisted. This review summarizes current concepts of the pathogenesis, diagnosis, treatment, and prognosis of marrow aplasias. The interested reader is referred to several excellent monographs for further data and references.[1-5]

Normal Hematopoiesis

Normal hematopoiesis occurs within a specialized physical and functional microenvironment.[6] Thus, although fetal hematopoiesis originates in the yolk sac and liver, quantitatively important hematopoiesis is confined to the bone marrow after mid-gestation. Marrow-sinus endothelial cells are covered incompletely on their abluminal surface by adventitial reticular cells. Hematopoietic cells are supported in extravascular spaces by the reticular cells and reticular-cell-derived fibrils. Fibroblasts and fat cells (both of which are derived from reticular cells), lymphocytes, nerves, and endosteal surfaces complete the marrow microenvironment.

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Mature blood cells are derived from pluripotent precursors. Schofield suggests that these pluripotent stem cells self-replicate as long as they remain within their primary microenvironment.[7] After leaving this niche they gradually mature, becoming less capable of self-renewal. On encountering an appropriate secondary microenvironment, the stem cells become committed and develop along specific differentiation pathways.[8,9] In addition to cellular interactions, stem-cell self-replication, maturation, and differentiation are modulated by humoral factors.

Normally, hematopoiesis can be increased markedly in response to increased demands. This reserve capacity is usually more than adequate for a person's life span. Aplastic anemia occurs when hematopoiesis fails. Possible causes of this failure are listed in Table 1 and discussed below.

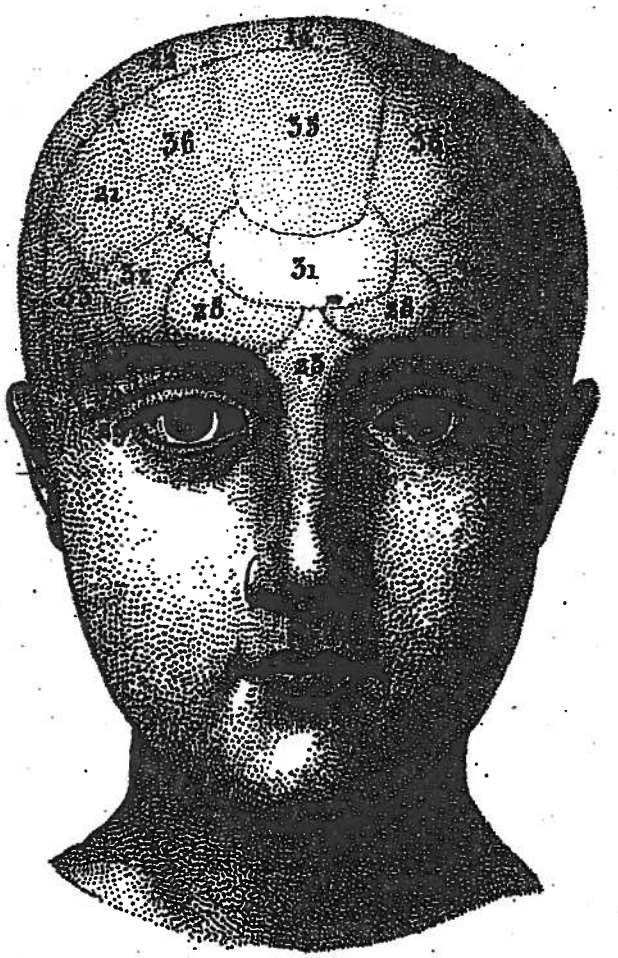
Pathogenesis

Animal Models of Aplastic Anemia

In the best-studied animal models of aplastic anemia, hematopoietic insufficiency may result from either stem-cell or microenvironmental injury. In mice treated with busulfan (5 to 20 mg per kilogram of body weight for four doses), marrow hypoplasia develops; the mice then apparently recover with minimal hematologic abnormalities in their peripheral blood.[10] However, residual quantitative and qualitative stem-cell defects are evidenced by the following factors: decreased numbers of pluripotent and granulocytic stem cells, poor growth of granulocytic stem cells, delayed repopulation of irradiated normal marrow by marrow from busulfan-treated animals, decreased numbers of pluripotent and granulocytic stem cells per spleen colony in irradiated normal mice given injections of busulfan-treated marrow, further de-

TAMING DESTRUCTIVE EMOTIONS

Can meditation change the brain? **DANIEL GOLEMAN**, *the best-selling author of* Emotional Intelligence, *offers* Tricycle *some surprising answers.*



In your new book, *Destructive Emotions*, you write that "recognizing and transforming destructive emotions is the heart of spiritual practice." Can you tell us what you mean by "destructive emotions"? There are two perspectives, one from the East and the other from the West. The Western view of destructive emotions—the modern philosophical and scientific view—is that they are emotions that result in harm to oneself or to others. And "harm" here is meant in the most obvious sense: physical harm, affective harm, social harm. The view from the East is subtler. The Buddhist view, as it emerged in conversations with the Dalai Lama at the Mind and Life conference *{see "The Lama in the Lab," page 70}* in March 2000, is that destructive emotions are those that disturb one's internal equilibrium, while healthy ones foster equilibrium of the mind. In this sense, "harmful" emotions are essentially what Buddhists call the *kleshas*, or defilements, which are enumerated in the classical texts. The kleshas operate on a gross level—in the form of hatred, craving, jealousy, and so on—and also more subtly, mingling with our thoughts to disturb equilibrium internally.

Buddhist teachings tell us that meditation can train the mind to replace destructive emotions with positive states, like equanimity. How does this hold up to scientific scrutiny? As I report in *Destructive Emotions*, we now have extremely compelling evidence showing that yes, dharma practice does alleviate destructive emotions and that it does so by profoundly altering the way the brain functions. The work of Richard Davidson at the University of Wisconsin-Madison *{see page 72}* has been

key in discovering this. Davidson has been involved in research on meditation on and off for thirty years.

When he and I were graduate students at Harvard together in the 1970s, we both did research on meditation. He looked at the attentional training effects; I looked at the stress-alleviation effects. But the methodologies back then were so primitive compared to what we have now that we didn't get very far. Now he is working in a field called "affective neuroscience," which looks at emotions and the brain, and he has come back to the study of meditation with state-of-the-art methods that are yielding quite compelling results on meditation's benefits.

Can you say something about those results? Yes, but first some background: Davidson's research has found that when people are in the grip of a strong disturbing emotion—anger, paralyzing fear, depression—there's an unusually high amount of activity in the amygdala, an almond-shaped structure deep in the emotional centers of the brain. Along with this heightened activity, there's an unusually high level of activity in the right prefrontal cortex, the brain's executive center, situated just behind the forehead. It seems that the amygdala is driving this area of the prefrontal cortex when we're in the grip of destructive emotional states. When destructive emotions take over, our thoughts, our memories, and our perceptions are skewed accordingly, and they have a cascading effect. For instance, when we're angry, we more easily remember things that make us angry. In other words, anger feeds itself, and we are more likely to act in a way that expresses that anger. That's a description, then, of the brain caught in a destructive emotion. By contrast, when the opposite range manifests—positive states like optimism, hope, buoyancy—the amygdala and the right side are quiet, whereas the area on the left in the prefrontal area is active.

As we go through our day, each of us has a distinct ratio of prefrontal activity on the right and the left. Surprisingly, Davidson has found that that ratio will predict the typical range of our moods day-to-day. So people who tend to have much more *right* prefrontal activity are much more prone to bad moods. People who have much more *left* prefrontal activity are more likely to experience very good moods, and if they get a very bad mood, it won't be very strong or it won't last very long.

Can meditation change this ratio for the better? What you're asking is whether the brain is plastic—that is, can it be shaped and changed? And the good news is the brain is extremely plastic *if* we undergo systemati repeated experiences. The problem is, we almost never t to train the brain unless we are in the course of acquirin a skill. If you learn to play the piano, for instance, you a reshaping the cortical area that controls fine finger move ments, and further developing parts of the auditory cort If you start to drive a cab in London, within six mont the part of your brain that is operating when you ar interpreting a map—in other words, your visual-spatial memory—starts to expand and become stronger. This h been demonstrated using functional MRIs, the gold star dard now for assessing brain function. The good news fo practitioners is that meditation practice seems to be on of those systematic trainings of the brain that yields quit beneficial effects, even from the beginning.

Davidson and Jon Kabat-Zinn—who's been so important in bringing mindfulness into the mainstream of medicine and culture—teamed up to do a study to appe in a scientific journal, in which they taught stressed-ou research scientists at a biotech firm to do mindfulness meditation. The subjects practiced about three hours a week for eight weeks. Davidson did brain assessments both before and after, and he found that in the before state, these guys—and they were mostly men—tended to have a right prefrontal tilt: they felt hassled, pressured, stressed-out, didn't enjoy their work anymore. But after the mindfulness training, Davidson found there was a significant shift from right prefrontal activity to the left. The subjects started to love their work again; they felt it was a challenge instead of a hassle; their moods were much, much better. It's clear that simply beginning meditation can bring about a significant shift in the brain.

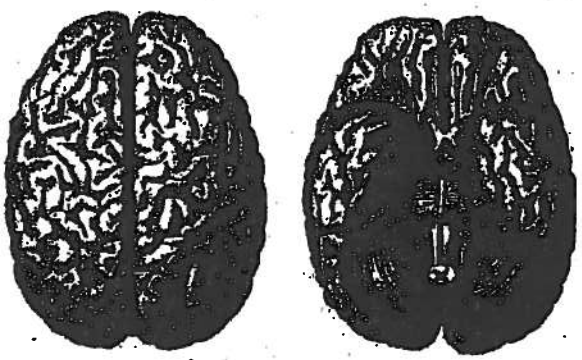
Now, the question is, how far can you push it? Davidson has just started to answer that question. One of the first practitioners he studied is the head of a monastery in Southern India. They brought him into the lab and tried to get his baseline for right-left ratio. The right-left ratio, by the way, is a bell curve. Most people tend to be in the middle, with very few people far to the right or left. This particular subject had the highest value for a leftward tilt that had ever been seen in his lab. Davidson has also found—and this I find quite significant—that when he asked another highly experienced practitioner to do a meditation on compassion, his brain went into an extreme value toward the left, too, again in the highest range seen thus far. These and other early results are so compelling that Davidson, along with other scientists,

has begun an ongoing program to study very highly experienced practitioners, people who have done three years or more of intensive retreat.

What does this suggest? If these findings remain consistent as Davidson progresses with more studies, this suggests that in terms of neuroplasticity, dharma practice may push the brain toward the upper registers of positivity in moods. If you look at classical Abhidharma—the Buddhist psychology—and the traditional texts, it says that the more you practice, the less you should experience the kleshas, or destructive emotions, and the more you should experience the positive ones. Lo and behold, 2,500 years later science is saying, *Hey, it looks like that's what happens!*

In your book, Davidson refers to what he calls "altered traits of consciousness." What does he mean? Well, an altered *trait* of consciousness is in contrast to an altered *state*. In meditation practice, with time, you may have occasional experiences of bliss or of rapture or have visions; all kinds of pleasant things can happen. Those are temporary altered states, and they fade; virtually every tradition in Buddhism refers to them as epiphenomena rather than goals in themselves. The standard advice is, just do the practice, don't make a big deal of it. One of the biggest confusions of Western culture has been to misinterpret such temporary states—to mistake momentary bliss experiences for actual realization. But realization has to do with stabilizing the underlying abilities of insight that generate those experiences—not the blissful states themselves. In such stabilization, you are altering your mind—or "brain," as we in the West would say. To achieve some stability would be to acquire what Davidson calls an "altered trait"—in other words, something that endures. Long-term meditation, science is now discovering, moves us toward enduring changes in brain activity.

Given the fact that the negative emotions seem to have been built into us over millennia of evolutionary development, does that set up a rather bleak picture for countering them with meditation practice? I think that recent discoveries pointing in favor of neuroplasticity offer great hope. I've been a strong advocate of what's called social-emotional learning programs in school for kids. Because if we can help kids acquire the everyday skills, like self-awareness, self-control, and empathy, that allow you to manage anger, fear, and depression—and these skills can be taught more easil to children—then we will help them shape their brai in a more optimal way for the rest of their lives. But adults we need a little remedial work. And it looks li meditation is good for that task.



Have you studied the effects of meditation in children? No. But we know that meditation shapes the brain, and you can conjecture that it gives people quite an advantage if they do it earlier in life, when th brain is being formed, rather than later. That's the case for instance, with *tulkus*, or for people who have been monks or nuns as children. What the effect of that is w don't know because we've never studied it, but you can see that it might give children a great advantage throu life in how, for example, they relate to their negative emotions. It may be that they have much stronger neu circuitry from childhood onward in, say, inhibiting ne tive emotions, because they've had the right kind of me tal training. It makes you wonder about what's happeni to the brain of someone who does a three-year retreat from the age of twelve or thirteen.

What implications does all of this have for the fiel of psychology? The deep assumptions that underlie psychology look rather culture-bound now, particula when it comes to what the upper limits of human potential might be. Freud said that the best psychoanalysis can do is bring people from neurosis to ordinary unhappiness. It's only been within the last five years or so that psychologists have started to think about a *positive* psychology, that is, the positive range moods. Most of the studies have focused on the negat range of emotion. Now there are psychologists who a looking at optimism and equanimity and happiness

areas in which people can develop. But what the upper limits of happiness might be is still relatively circumscribed; there's nothing in psychology, for example, to approximate the Buddhist idea of *sukkha*, of a happiness beyond circumstances, beyond conditions of life, of an ongoing internal state wherein one is replete no matter what else might be going on. That's just not in the vision of modern psychology.

Were any of the results of your collective studies particularly surprising? One unexpected discovery was that meditation training may make you a keener observer of other people's emotional states—I found it surprising, as did the Dalai Lama, when he heard about it. Paul Ekman *(see page 73)*, another of the scientists involved in the Mind and Life discussions, is a world expert on the facial expression of emotion. He discovered what are called "microexpressions," fleeting facial expressions that last a twentieth of a second or less. They're completely automatic and unconscious, revealing your true feelings at a particular moment. Ekman has developed a test of people's ability to detect microexpressions accurately. Curiously, he's found that most people who might want to be good at it, like judges or police or psychotherapists, aren't any better than the average person. I think the group that tested best were secret service agents. But when Ekman brought in seasoned practitioners, he discovered that they had an accuracy rating in the ninety-ninth percentile for many of the emotions—but not for all of them. Interestingly, exactly which emotions they were so good at detecting, differed from one person to another. But Ekman had virtually never seen such accuracy. And this was an unanticipated benefit of meditation. It may be because of a general perceptual sharpening, or because of some kind of enhanced empathy. A central tenet of Buddhism is compassion, and although it would be unscientific to draw any conclusion at this point, Ekman's findings are certainly consistent with cultivating compassion. In fact, I think empathy is a prerequisite for compassion, so in that sense it's completely in accord with the Buddhist teachings.

In your book, the Dalai Lama is very clear about the fact that concentration by itself is not spiritual practice, it merely sharpens the brain's ability to focus. That's a key point. Not all meditation that changes the brain is necessarily spiritually beneficial. Meditative abilities such as simply strengthening one's ability to concentrate can be quite worldly in and of themselves. Meditative states start to have spiritual benefits when they're used for developing insight and compassion. So if you strengthen your concentration and then use it in support of cultivating insight—for looking into the mind—that's good, and if you use it as a support for cultivating compassion, that has genuine spiritual benefit, too. But if you use it just to become a better martial arts practitioner, I don't think it has any particular spiritual benefits. In other words, it can be used to any human end, bad or good, but without the spiritual element of cultivating insight and compassion, it's a different goal altogether.

Can science aid in the process of overcoming afflictive emotions? I don't think that science can come up with some gadget that gives us a new way of practicing; I'm skeptical of that. I think that ultimately each of us has to do that work ourselves, internally. But I think that in our culture science can be of enormous help in establishing that the methodologies we've been using in dharma practice for millennia actually are effective on scientific grounds. The scientific findings that establish the efficacy of dharma practice in helping to alleviate disturbing emotions might remove some doubts that get in the way of a commitment to practice the dharma. And they might motivate and inspire people to work harder in their practice. So in that sense, science can be of aid to dharma practice. And it can do more than alleviate dharma practitioners' doubts; it can interest people who haven't been practitioners in starting meditation practice.

I think one of the most significant developments is that very high-level scientists in the West are now using state-of-the-art measures with highly experienced dharma practitioners. This has become a major research focus in itself so much so that in September, those scientists will be presenting their results and reflections at a public conference at MIT. In a related research effort, Paul Ekman, at the University of California at San Francisco, is testing a combination of Buddhist meditation and Western methods that will be offered in a secular context to help anyone who might benefit. Both of these developments are the direct result of the Dalai Lama's explicit urging.

So what is the bottom line on the mind's potential for transformation and liberation from afflictive emotions? Well, it's beginning to look like the Buddha just might have had it right. ▼

8

THE ROLE OF INTENTION IN SELF-REGULATION

TOWARD INTENTIONAL SYSTEMIC MINDFULNESS

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There have been substantial developments in theory and research on self-regulation over the past four decades. This chapter explores the progression of self-regulation understanding from nonconscious self-regulation (Wiener's cybernetic homeostatic model) to conscious attentional self-regulation (Schwartz, 1977, 1984, 1990) to the nature of conscious attentional self-regulation (e.g., mindfulness; Kabat-Zinn, 1982). Drawing upon insights from Weiner's and Schwartz's models, as well as the work of Kabat-Zinn and colleagues on mindfulness, we posit an expanded model for self-regulation theory. The purpose of this chapter is to introduce intention explicitly into self-regulation theory (i.e., what is the nature of the attention—"mindfulness qualities"—and what is the framework within which the self-regulation system is practiced—"systemic perspectives"). Furthermore, this chapter proposes a model, intentional systemic mindfulness (ISM), that provides both the goal for intention as well as the process for implementing it within self-regulation. ISM examines two critical aspects of intention: mindfulness qualities (how we attend) and systemic perspectives (why we attend).

Self-regulation in biology is an ancient notion captured in proverbs such as "the balance of nature," but it became a modern science with the

introduction of Wiener's (1948) cybernetics. Wiener himself applied this engineering concept to living systems. Self-regulation can be defined as the process by which a system regulates itself to achieve specific goals. In his work on human self-regulation, Schwartz (1977, 1984, 1990) expanded self-regulation to include conscious as well as nonconscious regulation. During the past 20 years, Kabat-Zinn and colleagues have added an extremely effective technique for self-regulation by helping to bring "mindfulness," a form of Buddhist meditation, to mainstream Western medicine. Mindfulness is a conscious, impartial self-regulation, defined as "moment-to-moment awareness" (Kabat-Zinn et al., 1992, p. 937). Mindfulness adds to conscious self-regulation by explicitly infusing "attention" with seven mindfulness qualities: acceptance, nonjudging, nonstriving, patience, trust, openness,[1] and letting go (Kabat-Zinn, 1982; Kabat-Zinn et al., 1992). Systems theory extends the range of applications of mindfulness, enlarging its focus to embed the symptom and self in larger systems (the systemic perspectives). Thus, ISM[2] is a systems theory approach to mindfulness applied to human self-regulation and all self-regulation techniques.

In ISM *intention* is primal, providing the mindfulness qualities and systemic perspectives that should infuse *attention*. However, the majority of current theories of self-regulation, with few exceptions (e.g., Kabat-Zinn, 1982; Kabat-Zinn & Chapman-Waldrop, 1988; Kabat-Zinn et al., 1992), do not explicitly address the multifaceted nature (e.g., physical, emotional, social, spiritual) of restoring or enhancing health and wellness. This chapter discusses an explicit and comprehensive model (ISM) that bridges the theories of East and West and establishes a connected and unifying approach to self-regulation and health. This model provides a contextual perspective for expanding self-regulation theory, as well as a rationale for intention within self-regulation. The core of ISM is intention—the intention to (1) pay attention utilizing the foregoing seven mindfulness qualities as well as five additional affective qualities—generosity, empathy, gratitude, gentleness, and loving kindness—and (2) pay attention within a systems perspective, the simultaneous consciousness of being a whole and being part of a larger whole. The implications of ISM for self-regulation therapies are numerous and suggestions for future research are discussed.

[1] Openness refers to the Buddhist quality of the beginner's mind.

[2] We have chosen to call this model *intentional systemic mindfulness* ISM to explicitly emphasize the interrelated systemic components that are a part of Kabat-Zinn's mindfulness work.

I. SYSTEMS THEORY, SELF-REGULATION, AND MINDFULNESS

Ecologist, Barry Commoner, captured the essence of systems theory in his teaching that everything is connected to everything else (Commoner, 1990). Systems theory argues that fundamental systemic metaprinciples exist in nature and can be applied to systems at all levels. A complex system should be regarded as a "whole" rather than as an aggregate of component parts and local relationships to be studied in isolation. The system as a whole regulates the interaction of its parts or subsystems. To interact, these parts must be connected. The connections enable the parts to affect each other's behavior, but, more importantly, allow the system to control the global operation. This interactive organizational process within systems is termed self-regulation. Living systems maintain inner balance, harmony, and order through their capacity to self-regulate via feedback loops between particular functions and systems (Schwartz, 1977, 1984, 1990).

Out of the interaction between systems, emergent properties evolve. For example, the interaction between hydrogen and oxygen atoms produces a novel emergent property: water. Every system is a whole composed of subsystems and simultaneously is part of a suprasystem. A human being can be thought of as composed of subsystems (organs), part of larger suprasystems (families, communities, cultures), and as a whole system in and of himself or herself. The same rules apply to humans as they do to atoms. The interaction between hydrogen and oxygen can be seen as a metaphor for relationships. For example, just as hydrogen brings out special properties from oxygen and vice versa, when humans interact they bring out emergent properties in each other.

This chapter draws most from the interconnectedness component of systems theory. In discussing the systems concept of interconnectedness, it is important to go beyond the standard reductionist account that explains connectedness purely as relationships between parts, leaving out governance (regulation) by the whole. Systems theory is the effort to study complex systems holistically, recognizing the interconnectedness of all the parts and the large number of nonlinearly interdependent variables involved. The variables are connected through feedback loops and implement the system's self-regulation. This dynamic synergistic interaction can be observed on all levels from subatomic physics and cellular biology to social, political, and global systems. An example at a biological level is ontogeny, where development of the embryo is regulated by a genetic "plan" that is responsive at every stage to environmental influences transmitted somatically. An example within a family system can be seen when parents are loving and respectful to each other they are engaged in

feedback loops that promote connection and wholeness. These feedback loops affect their individual relationship, as well as their relationships with their children, which in turn affects the dynamics of the family as a whole.

II. SELF-REGULATION

Self-regulation is a systems concept. Self-regulation is based on positive and negative feedback loops. Positive feedback loops engender heterostasis, leading to change, growth, and development. Negative feedback loops engender homeostasis, which is a stable state that a living organism strives to maintain by keeping vital parameters within viable limits. Both positive and negative feedback loops foster learning and memory (Schwartz and Russek, 1997a). When the homeostatic model is extended from fixed to changing environments, the theory of evolution adds the important parameter of adaptability. Watzlawick, Beavin, and Jackson (1967) described both positive and negative feedback loops:

> ...part of a system's output is reintroduced into the system as information about the output. The difference is that in the case of negative feedback this information is used to decrease the output deviation from a set norm or bias—hence the adjective "negative"—while in the case of positive feedback the same information acts as a measure for amplification of the output deviation, and is thus positive in relation to the already existing trend toward a standstill or disruption. (p. 30)

This definition parallels Carver and Scheier's use of the term "feedback" in social facilitation. For example, they describe the operation of a negative feedback loop in social behavior: "self-directed attention leads to the engagement of a cybernetic feedback loop by which discrepancies between present behavior and a standard of comparison are reduced" (Carver & Scheier, 1981, p. 45). Balance between positive and negative feedback within a system is crucial. If a system has only negative feedback loops, it will remain stagnant; however, if a system contains only positive feedback, then it eventually will explode. Interconnection and wholeness stem from this balance.

One early and foundational model of self-regulation stems from Weiner's (1948) cybernetics. This is based on homeostasis and evolved from his work on antiaircraft guns in World War I. The idea was that the guns would adjust to changing motion of the target aircraft and make a hit. Another example of self-regulation can be seen when you attempt to touch your finger to your nose. If your eyes are open, you receive continual feedback and it is much easier; if your eyes are closed, then this task is much more difficult.

Schwartz (1984, 1990) expanded the notion of self-regulation from automatic response to conscious self-regulation. When system parameters exceed performance limits, the system self-regulates either nonconsciously

or consciously. Conscious self-regulation requires that the human being pay attention to the process. Self-regulation automatically (nonconsciously) occurs all the time; however, by bringing conscious attention, the feedback is amplified. This increased feedback leads to greater connection and subsequent self-regulation. For example, if individuals are requested simply to pay attention to their breathing, with no intention to alter their breathing in a particular way (e.g., increase or decrease respiration rate, respiration amplitude, or respiration regularity), typically respiration becomes slower, deeper, and more regular. However, if subjects are instructed to pay attention to their heartbeats, with no intention to alter their heart rate in a particular way, especially with the aid of kinesthetic feedback (feeling one's own pulse), respiration typically becomes shallow and irregular while beat to beat changes in heart rate become more regular (Schwartz, 1984). These selective self-regulation effects with focused attention illustrate the relationship between conscious awareness of organ systems and specific physiological effects.

Schwartz's model of self-regulation involves "attending," which is similar to the Buddhist term mindfulness, and yet, Schwartz's model is goal oriented conscious attention, whereas Kabat-Zinn's model emphasizes conscious (purposeful) attention with no specific goals: "paying attention in a particular way; on purpose, in the present moment, and nonjudmentally" (Kabat-Zinn, 1994, p. 4). Kabat-Zinn's model of mindfulness differs from Langer's (1989) mindfulness in that it extends the focus on attention to include the nature of attention (e.g., mindfulness qualities brought to the attention; reviewed subsequently). Furthermore, Langer focuses on "mindlessness" and does not emphasize self-regulation practices (e.g., meditation) designed to cultivate mindfulness. Finally, Langer (1989, p. 71) does not address the "cosmology" or "moral aspect of mindfulness" that is significant in Kabat-Zinn's model. In teaching mindfulness, focus is on the experiential practice itself. Mindfulness practice involves concentrated moment to moment attention focused inward, attending to thoughts, feelings, and body sensations as they arise. Research has demonstrated that mindfulness may be an effective intervention for anxiety disorders, chronic pain, and psoriasis in its own right (Kabat-Zinn, 1982; Kabat-Zinn et al., 1992; Miller, Fletcher, and Kabat-Zinn 1995), as well as being an effective complement to more traditional medical and psychological therapies (Teasdale, Segal, & Williams, 1995).

III. SELF-REGULATION TECHNIQUES AND POTENTIAL LIMITATIONS

There are several different models of self-regulation and numerous techniques that follow from these models. Techniques that have been used

as vehicles to develop self-regulation and mindfulness are meditation, biofeedback, guided imagery, and exercise. These techniques share a goal of health enhancement and disease (symptom) reduction through teaching the individual to simply attend (bare awareness) and thereby connect and self-regulate. However, for many practitioners and patients, the context within which these strategies are implemented is a Western reductionist approach to stress management, focusing on symptom alleviation instead of acknowledging the larger process from a systems perspective (Shapiro, 1982, 1994). These techniques, therefore, share limitations that may prevent the individual from achieving "optimal health," defined by the World Health Organization (1946) as more than the absence of disease, involving mental, physical, and social well-being.

Reductionistic self-regulation theories cannot explicitly address all of the multilevels that create and sustain optimal health. Numerous self-regulation techniques simply intend to return things to normal (e.g., blood pressure) and do not address more systemic intentions. There is nothing wrong in using meditation to lower blood pressure. However self-regulation techniques that explicitly address intention toward ISM may be more effective at promoting healing on a systemic level as well as on a symptom level.

IV. PSYCHOPHYSIOLOGICAL RESEARCH ON SELF-REGULATION — PHYSIOLOGY AND ENERGY

The research on psychophysiological self-regulation is voluminous and documents that different techniques that focus on different components or subsystems have different effects (e.g., progressive muscle relaxation produces greater effects on muscular tension than autogenic training techniques involving images of warmth; reviewed in Lehrer and Woolfolk, 1993).

Many relaxation, meditation, and imagery techniques including Qigong, massage, and noncontact therapeutic touch, implicitly or explicitly involve focused attention to the body. From a dynamical energy systems perspective (the thesis that physical systems interact not only through the sharing of matter, but the sharing of energy and information as well; Schwartz and Russek, 1997a), relaxed self-attention should result in enhanced connectivity between the brain and the body. Enhanced connectivity between the brain and the body may be achieved by at least two mechanisms: (1) physiological mechanisms that employ peripheral negative feedback loops and (2) biophysical mechanisms or loops that involve direct energetic resonance between the peripheral organ and the brain.

A recent study by Song, Schwartz, and Russek (1998) illustrates the potential for selective self-regulation that bridges traditional physiological and modern energetic models of interaction (Schwartz and Russek, 1997a). Nineteen channels of EEG, ECG, and EOG were recorded from 22 subjects during attention to heart versus eye sensation trials, with and without kinesthetic feedback to augment sensory awareness. Analyses of the EEG synchronized with the ECG revealed significant post-R spike EEG effects for heart focused attention (especially with touching), probably reflecting increased baroreceptor and somatosensory feedback, and pre-R spike EEG effects for heart focused attention (independent of touching), possibly reflecting direct energetic interactions between the heart and the brain. These findings suggest that physiological and energetic mechanisms both may be involved in techniques whose goal it is to promote mind–body integration and health.

If simple attention to the body can foster increased synchronization between the brain and the body—not only physiologically, but energetically as well—the potential for ISM is increased accordingly. From a systems perspective, energy circulates within and between organisms, and energy can be directed to achieve specific goals (*energy* is defined by physics as the capacity to do work; see Schwartz and Russek, 1997a, 1997b). Furthermore, the psychology, biology, and physics of self-regulation all point to the suggestion that a key to fostering self-regulation lies in the nature of the intention to direct attention to achieve a desired goal. This insight requires that we expand our current models of self-regulation to include the process of intention.

V. ELABORATION OF AN EXPANDED SELF-REGULATION MODEL: INTENTION

According to Schwartz (1984), self-regulation is the process through which a system maintains stability of functioning as well as flexibility and the capacity for change in novel situations. When a system goes out of balance, the restoration of order requires attention to reestablish connectedness. Because human beings can be thought of as systems, when illness occurs, attention also is needed to reestablish connectedness and subsequently health. This has been described by Schwartz as a pathway model of self-regulation: attention → connection → regulation → order → health. Cultivating conscious attention leads to connection, which leads to self-regulation and ultimately order and health. However, the intention with which this attention is applied may be crucial. An expanded model of self-regulation theory, therefore, includes intention as an initiating antecedent: intention → attention → connection → regulation → order → health. However, the question arises, "Intention toward what?"

VI. INTENTION

Intention is a global property of the entire system (e.g., person). In this context, we are using intention following Webster's (1977) definition that focuses on "purpose" and "direction" as opposed to the definition that focuses on an "ultimate end." Intention can be thought of as toward a means as opposed to a single, ultimate goal (which would imply an end state and does not fit within a systemic model). However, according to Gollwitzer and Brandstatter (1997), both the "goal intention" as well as the "implementation intention" (process) are important. Thus, although the emphasis is on the process (implementation intention), multiple goal intentions are developed simultaneously, but they are derived within a nonlinear, systemic perspective and therefore an "ultimate" end is never completed.

VII. INTENTIONAL SYSTEMIC MINDFULNESS: MINDFULNESS QUALITIES AND SYSTEMIC PERSPECTIVES

In response to the question, "Intention toward what?," we propose, "Toward ISM." ISM (shown in Figure 1) establishes a framework for developing goal intentions (from the micro to the macro; see Figure 2) as well as a process of implementing them (open, nonjudgmental attention to all stimuli) within self-regulation theory. In developing both goal and implementation intentions, ISM integrates two components: systemic perspectives (Figure 2) and mindfulness qualities (Table 1).

For clarity of presentation, mindfulness qualities are discussed first. Consistent with Ajzen's recognition of the importance of the relationship between attitudes and intention to behavior and health (Ajzen, 1996), this model makes explicit a set of attitudinal (mindfulness) qualities to incorporate into self-regulation practice. The term "mindfulness qualities" refers to the intention to incorporate and bring into conscious attention 12 cognitive-affective mindfulness qualities defined by Kabat-Zinn (1990) and elaborated by Shapiro, Schwartz, and Bonner (1998). These 12 mindfulness qualities include nonstriving, nonjudging, acceptance, patience, trust, openness,[3] and letting go (Kabat-Zinn, 1990) as well as gratitude, gentleness, generosity, empathy, and loving kindness (Shapiro, Schwartz, & Bonner, 1998) (see Table 1). The latter qualities were incorporated to explicitly address the affective (heart) qualities of mindfulness. According to Tanahashi, the Japanese characters of mindfulness are composed of two interactive figures: one mind, and the other heart (Santorelli, 1999).

[3] Openness: derived from beginner's mind, "a mind that is willing to see everything as if for the first time" (Kabat-Zinn, 1990, p. 35).

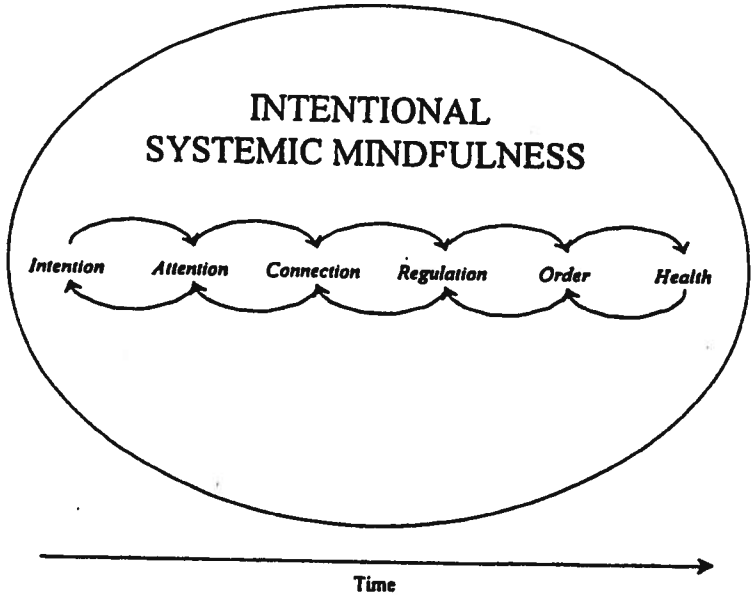

FIGURE 1 The six components of the expanded systemic self-regulation pathways model over time. The arrows indicate how each phase is directly or indirectly connected to all others. Each phase both sends and receives direct or indirect feedback to all other phases as a dynamic systemic process.

Therefore, perhaps a more accurate translation of the Japanese is heart-mindfulness (Shapiro & Schwartz, in preparation).

The mindfulness qualities are involved in a synergistic co-evolution, in that the cultivation of one facilitates the cultivation of others. ISM encourages the cultivation of all qualities simultaneously; however, for each individual, the practice and development of these qualities will be different. A systemic vision recognizes a multiplicity of satisfactory stable equilibiria that continue to evolve to new equilibiria. As a result, the level of activity of each mindfulness quality varies and yet the intention is to cultivate all qualities. The qualities operate as "inputs" during both the intention and attention phase.

Mindfulness qualities specify the way one attends. Attention by itself is not enough. It is crucial to attend in a particular way, with the intention to incorporate the mindfulness qualities as part of the self-regulation technique. It is not simply paying attention, but the intention behind it, that may be important for enhancing health. For example, Schwartz (1984) mentions grooming as a healthy form of attention that leads to self-regulation and improves health. However, it is possible that if individuals groom themselves with the intention

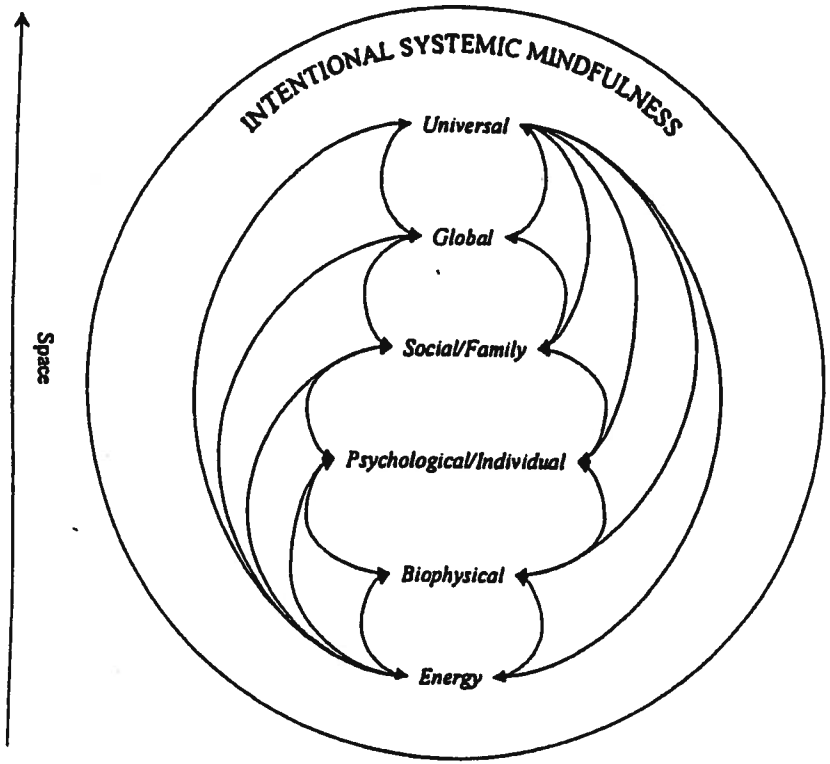

FIGURE 2 Six systemic levels in space, from the micro (energy) to the macro (universal). The arrows indicate how each level is directly or indirectly connected to all others. Each level both sends and receives direct or indirect feedback to all other levels as a dynamic systemic process. All possible arrows (hence interactions) not are shown.

ing, need for perfection, self-criticism, and frustration, then this attention will not be health promoting and may instead be harmful. This same behavior of grooming, performed with a conscious intention to infuse the attention with mindfulness qualities of acceptance, generosity, nonjudgementalness, may indeed be health promoting.

To consider another example, if people who attend to their blood pressure attend with fear that they will not be able to control it or with anger at themselves for having high blood pressure, this may have deleterious effects on their health or at least impede the potential healing effects of the self-regulation technique. The intention to attend with mindfulness qualities may be health enhancing in itself. Utilizing these qualities, we focus attention on ourselves in a loving and gentle way, open to whatever

TABLE 1 Mindfulness Qualities

Nonstriving: Nongoal oriented, remaining unattached to outcome or achievement
Nonjudging: Impartial witnessing, observing without evaluation and categorization
Acceptance: Open to seeing and acknowledging things as they are
Patience: Allowing things to unfold in their time, bringing patience to both ourselves and to others
Trust: Trusting both oneself and the process of the self-regulation practice itself
Openness: Seeing things as if for the first time, creating possibility by paying attention to all feedback
Letting go: Nonattachment, not holding on to thoughts, feelings, or experiences
Gratitude: The quality of reverence, appreciating and being thankful for the present moment
Gentleness: Characterized by soft, considerate, and tender quality; soothing, however not passive, undisciplined, or indulgent
Generosity: Giving within a context of love and compassion, without attachment to gain or thought of return (the content of giving does not have to be material)
Empathy: The quality of feeling and understanding another person's situation—their perspectives, emotions, actions (reactions)—and communicating this to the person
Loving kindness: A quality embodying benevolence, compassion, and cherishing, a quality filled with forgiveness and unconditional love

Note. These categories are offered heuristically, reflecting the general idea that there are mindfulness qualities that should be part of the intention phase as well as the attention phase of the pathway model. A commitment (intention phase) is made to bring the qualities to the practice and then the qualities are themselves cultivated throughout the self-regulation practice itself (attention phase). See Kabat-Zinn (1990, pp. 33–40) for detailed definitions of the first seven qualities.

we may find. This attention involves a stance of impartiality, letting go and cultivating patience for whatever is present, and a willingness just to listen to and accept in loving kindness all the parts of our whole.

It is also crucial to discuss the systemic perspectives within which the attending occurs. *Systemic perspectives* refer to the intention to incorporate into the practice of mindfulness the awareness that symptoms themselves exist as part of larger systems (see Figure 2). This aspect of ISM is akin to the term "holon," which was coined by Koestler (1978) and refers to a system that is "both a whole composed of parts and a part composing larger wholes." ISM requires the simultaneous consciousness of being a whole and being part of a larger whole (systemic perspectives) while incorporating the mindfulness qualities.

This context of "wholeness" is created by the intention with which the individual approaches the attention (self-regulation technique). It is necessary to look at intention from a systemic perspective, explicitly acknowledging multiple intentions directed at multiple levels: (1) awareness of interconnection, (2) awareness of dynamic interaction and constant change, (3) awareness of levels (micro–macro), and (4) awareness of wholeness (wholes within larger wholes).

The process of ISM is to develop multiple intentions in an attempt to heal and recognize all levels from the specific symptom (blood pressure) to the largest level (universe.) Thus, approaching self-regulation within systemic perspectives involves seeing and recognizing the interconnection of all things, and intending to acknowledge and heal each piece and simultaneously the larger whole. Practicing a self-regulation technique within the context of ISM leads to a feeling of being supported by and connected with oneself as well as with a larger supportive system. These feelings of support and interconnectedness may have health enhancing properties. The literature supporting this hypothesis will be discussed in Section IX.

Many self-regulation techniques fall short by focusing on a symptom and ignoring the system. For example, a person may practice meditation solely to become aware of blood pressure and thereby lower it. However, if this is done without the proper intention, it may exacerbate the situation as discussed earlier. ISM addresses these shortcomings. A self-regulation technique practiced with intention toward systemic perspectives includes multiple levels of intention, combining the intention to heal blood pressure with an intention to promote the well-being of the entire circulatory system, especially the heart. This in turn leads to enlarging the intention to heal the heart to incorporate the knowledge that the heart is part of the body, conceived of as a psychosomatic self. The self is then recognized as embedded within interpersonal relationships, family, and community, and, therefore, the intention to heal interpersonal relationships is added also. This awareness stimulates recognition that these relationships are part of a larger community (humankind), which creates the intention to acknowledge the connectedness of all beings. Finally, the recognition develops that this greater community is connected to the earth and that humans are interconnected and interdependent with all beings and with the earth itself.

Because of the continual evolving nature of intention, the expanded self-regulation pathway model is not a simple linear sequence. ISM is dynamic, a continual process of expanding and redefining intention (mindfulness qualities and systemic perspectives; see Figure 1). It is a system of many variables that are connected in nonlinear fashion and, thus, it is impossible to separate the pathways—it is the opposite of discrete. Yet, throughout this continual transformation, the intention to attend with the mindfulness qualities (acceptance, loving kindness, etc.) remains constant, as does commitment to eventually acknowledging all systemic perspectives. ISM, therefore, is not only the plan and the execution of the plan, but the modification of the plan based on the feedback of the actual experience (see Figure 1). ISM is change fueled by the intention to incorporate mindfulness qualities and systemic perspectives.

For example, one cannot be expected to immediately embrace (or even grasp) the intention of healing the universe. Because ISM is both nonlinear and dynamic, it provides the opportunity for continual growth and transformation. As one becomes increasingly mindful, through the cultivation of attention, the formulation of one's intentions changes (see Figure 1). Through becoming aware—expanding one's scope of intentionality—deeper levels of previously unrecognized feedback are discovered and amplified. Continuing along the systemic self-regulation pathway model (Figure 1), this constantly increasing feedback guides the movement and allows the process to flow in a dynamic manner as opposed to disjointedly moving from each phase to the next. Thus, as the grounding theory underlying the self-regulation pathway model, ISM opens the potential that, eventually, multiple intentions will be adopted. As one continues the process, one moves through concern for the specific symptom to concern for the larger context of one's symptoms.

ISM is both the theory and the practice, exercising guidance throughout the entire self-regulation pathway model. It pervades the whole system (self-regulation pathway model), providing the overarching principles that cause the flow as well as the means to sustain this flow. One has to be mindful continually of the increasing levels of feedback in order to deepen one's mindfulness qualities, expand one's systemic perspectives, and sustain the flow.

VIII. APPLICATIONS OF INTENTIONAL SYSTEMIC MINDFULNESS TO SELF-REGULATION TECHNIQUES

We suggest that optimal health enhancement and disease prevention and resolution stem from systemically mindful self-regulation techniques more so than from nonsystemically mindful self-regulation techniques. "Optimal health enhancement" can be translated and measured using outcome variables that span the immunological level (e.g., NK cells) and the physiological level (e.g., blood pressure) to the psychological (e.g., depression, anxiety), the social (quality of life), and the spiritual (spirituality measure) levels. ISM teaches the individual to adopt the intention to heal from a qualitative and contextual level that may promote healing on all levels (symptom, self, family, political, universal). Systems heal both downward and upward, smaller to larger and larger to smaller. Thus, the person (a system) heals on multiple levels, creating a greater opportunity to reach optimal health (physical, emotional, social, spiritual well-being). ISM is both a means (the technique used to achieve this whole) and an end (a way of living, being, and interacting in the world).

The healing effects of "consciously paying attention" may depend upon the mindfulness qualities and systemic perspectives in which this self-regulation is practiced. Through self-regulating techniques (meditation,

biofeedback, hypnosis, imagery, yoga), the individual attends and connects to his or her "self," and is often able to regulate blood pressure and body temperature, and achieve a state of physiological hypoarousal—the "relaxation response" (Benson, 1975). The literature demonstrates that no technique is inherently better than another in terms of self-regulation for a specific clinical problem (Shapiro, 1994). We suggest that a self-regulation technique practiced with the intention toward ISM is qualitatively and quantitatively "better" than one practiced with no intention.

IX. CONNECTEDNESS AND INTERCONNECTEDNESS

It is commonly recognized at the molecular biochemical level that connection is crucial for regulating physical health. However, if connectedness is fundamental to the functioning of our body, it seems plausible that it is important on social and psychological levels as well. As Schwartz and Russek (1997b) remind us, the words "health" and "heal" come from the Anglo-Saxon "hal," which means whole (Webster, 1977). Perhaps feeling whole and connected is primal to cultivating physical and emotional health. ISM, by fostering interconnnectedness and wholeness (during both the intention and attention phases of the pathway model), may be health enhancing.

It can be argued that in the past scientific research literature, positive association between social support and health was really tapping into the healing effects of connectedness and wholeness. The effects of social support are well documented. As Berkman, (1995, p. 245), a pioneering researcher in the field states, "there is now a substantial body of evidence that indicates that the extent to which social relationships are strong and supportive is related to the health of individuals who live within such social contexts." In the past 20 years, numerous studies have concluded that people who feel isolated and disconnected have a greater risk of death from all causes. The converse has been found also: People who feel loved and connected are healthier and live longer.

One of the first prospective longitudinal community-based studies that documented the relationship between health and social support was the Alameda County study. This study found that men and women who did not have a strong social network were 1.9 and 3.1 times more likely to die in a 9-year followup (Berkman & Syme, 1979). There have been at least eight community-based prospective studies since, all indicating a relationship between social support and mortality rates independent of socioeconomic status, self-reported physical health status, and health practices such as smoking, diet, alcohol consumption, exercise, and utilization of preventive health services (Berkman & Syme, 1979; Blazer, 1982; House, Robbins, & Metzner, 1982; Kaplan et al., 1988; Orth-Gomer & Johnson, 1987, Orth-Gomer, Unden, & Edwards, 1988; Ruberman et al., 1984; Schoenbach et al., 1986; Seeman et al., 1993; Welin et al., 1985; Williams et al., 1992).

The literature also demonstrates that facilitating feelings of support and connection through group intervention is health enhancing. Spiegel, & Bloom, Kraemer, & Gottheil (1989) conducted a prospective intervention focusing on group cohesion, support, sharing, and trust for patients with metastatic breast cancer. A 10-year followup showed that women in the intervention group survived 36.3 months compared to 18.9 months in the control group (Spiegel et al., 1989). In a similar study, Fawzy et al. (1993) found a three times greater chance of survival in patients with malignant melanoma who received a group support intervention.

In the Lifestyle Heart Trial, 41 patients with angiographically documented coronary artery disease were assigned randomly to an intervention group or a "usual-care" control group. The intervention consisted of a low-fat vegetarian diet, moderate exercise, smoking cessation, stress management, and support groups. The usual-care group received standard traditional medical care. At a 1-year followup, 82% of the intervention group showed significant regression of severe coronary atherosclerosis, whereas the control group continued to worsen (Ornish et al., 1990). The stress management (imagery, meditation, yoga) and social support components of the intervention were designed intentionally to help participants enhance connectedness with self, others, and a higher power (Ornish, 1991).

Even more recent studies consistently document the relationship between love, spirituality, and health. In a study exploring the relationship between the perception of parental care and health, Russek and Schwartz (1997) found that feelings of warmth and closeness with parents predicted health status for 35 years. Another study examined the effects of social support and religion on men and women who had undergone open heart surgery 6 months previously. The study revealed a four times greater risk of mortality 6 months after surgery in men and women who lacked participation in organized social groups, and a three times greater risk for those who did not draw strength and comfort from their religion (Oxman et al., 1995).

Reductionistic self-regulation techniques, practiced without intention (mindfulness qualities and systemic perspectives) may never access this resource of interconnectedness associated with healing. However, practicing self-regulation with the intention toward ISM (developing the mindfulness qualities and systemic perspectives) may help facilitate greater health enhancing feelings of support and connection (interconnection). For example, the systemic perspectives may enable the individual to connect to a larger self and, thereby, become more whole. As Kabat-Zinn (1994, p. 226) describes, "When we are in touch with being whole, we feel at one with everything. When we feel at one with everything we feel whole." Self-regu-

lation techniques facilitated with the intention toward systemic perspectives aim to foster this healing sense of "ultimate belonging" which the Benedictine monk Steindal-Rast (1989) refers to as "God."

The mindfulness qualities also may facilitate feelings of love, connection, and support. The systemic pathway model (Figure 1) can be applied to all levels, from the individual to the global, suggesting that the theory attention (embodying the mindfulness qualities) leads to greater connection and greater health is not limited to an individual or biological process. An example can be seen when applying this model to interpersonal relationships. Bringing a compassionately open attention to relationships may lead to greater connection, love, and health. We can develop our capacity to feel (accept) and express love through attention, but only through an attention couched in trust, acceptance, and generosity (mindfulness qualities). As the foregoing research suggests, when we feel loved and cared for unconditionally, or in theologian Paul Tillich's (1952) words "accepted," we have improved health and well-being. Thus, a self-regulation technique (attention) practiced with the intention toward ISM (mindfulness qualities and systemic perspectives) may facilitate the health enhancing feelings of interconnection and love.

X. GENERAL PRINCIPLES OF INTENTIONAL SYSTEMIC MINDFULNESS INTERVENTIONS

General principles of ISM that could transfer across intervention settings include (1) an emphasis on the intention of the selfregulation intervention, (2) cultivating a compassionate, nonjudgmental (mindfulness qualities) attention throughout the intervention, (3) viewing the intervention as a continual process as opposed to an end in itself, and (4) adopting systemic perspectives that acknowledge and address interconnectedness and wholeness.

XI. FACILITATING INTENTION SYSTEMIC MINDFULNESS

An effective way to facilitate interconnectedness is probably to practice self-regulation with others (groups, couples, and student and teacher). A community (sangha) provides an organizing context, facilitating direct experience of greater connection. One example can be seen in Kabat-Zinn's work with mindfulness meditation groups (Kabat-Zinn, 1982; Kabat-Zinn et al., 1992; Miller et al., 1995). Further examples are the Lifestyle Heart Trial intervention (Ornish, 1991) and historical teacher and disciple practices of the ancient traditions (Buddhism, Hinduism, Judaism).

XII. DIRECTIONS FOR FUTURE RESEARCH

There are multiple directions for future research. First and most importantly, self-regulation interventions with an intention toward ISM need to be compared to self-regulation interventions without any explicit intentions. An example of this would be to measure the psychological and physiological effects of diaphragmatic breathing with the intention toward ISM versus diaphragmatic breathing with no explicit intention. We hypothesize that the systemic mindful intervention would benefit the individual on multiple levels of health. Furthermore, future research should focus on creating reliable and valid self-report measures to assess ISM (e.g., one's intentions, the degree to which one understands and is able to integrate ISM into the self-regulation) as well as measures to assess systemic health (an assessment sensitive to the multiple levels of health). Because ISM is an overarching approach to self-regulation, it can be studied and applied to various specific techniques such as biofeedback and relaxation.

XIII. IMPLICATIONS FOR HEALTH AND MEDICINE

In discussing the implications of ISM, it is crucial to emphasize again that ISM is not simply another self-regulation technique (although it can be applied to self-regulation techniques). ISM can be viewed as a way of living, a "way of being" (Kabat-Zinn, 1992). Thus, the implications of ISM span multiple levels from the micro to the macro, each interacting with and stimulating the others.

On an individual level, intention toward ISM will amplify feedback and thus should deepen connections and self-regulatory processes within the body. Furthermore, ISM provides a compassionate contextual perspective for self-exploration, potentially leading to greater insight and psychological well-being, and allowing greater reception of more accurate and complete information that can be processed without attaching judgment. One's intention to embody the mindfulness qualities within a systems context of interconnectedness should affect not only one's relationship with self, but all interpersonal relationships, bringing greater compassion and insight to family, friends, colleagues, and even casual acquaintances and strangers.

A natural outgrowth of practicing self-regulation techniques with the intention toward ISM is that the cultivation of feelings of compassion, impartiality, and interconnectedness often translate into action (e.g., greater service to community). This is because the practice frequently results in feelings of interconnectedness and the realization that there is no separation between self and other. ISM cultivates the capacity to understand another person's point of view and the ability to acquire

information nonjudgmentally. Social psychology has demonstrated the phenomena of cognitive filtering and schema: In all spheres of life, people often attend to stimuli that support their beliefs and filter out those which do not. This process usually occurs at a nonconscious level, and people are, therefore, unaware that they have lost crucial information that could be applied to health and well-being.

XIV. SUMMARY

This chapter addressed the possible implications of making intention explicit in self-regulation theory. It responds to the question, "Intention toward what?," by developing a model of ISM. ISM provides a comprehensive and integrative approach to self-regulation and health. Through directing intention toward the two components of the model, mindfulness qualities and systemic perspectives, a more accepting, compassionate, and systemic approach is brought to self-regulation practices and techniques. A challenge for future research is to develop instruments that measure intentionality and health systemically (e.g., biopsychosocial–spiritually) and determine whether ISM techniques lead to more systemic improvements in overall health and well-being. The evolution of self-regulation theory toward ISM will expand the simple stress management and symptom reduction intention of self-regulation techniques toward a more comprehensive approach to human intention.

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