

# A Program in Contemplative Self-Healing

## Stress, Allostasis, and Learning in the Indo-Tibetan Tradition

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This paper reviews current behavioral health interventions and introduces a self-healing program based on the Indo-Tibetan tradition. While most work on behavior change emphasizes cognition and motivation, this review highlights stress-reactivity as a rate-limiting resistance to learning. Surveying cognitive-behavioral theories, it finds these limited in modeling stress-reactivity. Reviewing current interventions that address stress by integrating relaxation, mindfulness, imagery, or movement with cognitive-behavioral education, it attributes their limited effectiveness to the limits of their model of stress and their strategy of eclectically mixing techniques. Next, the article explores the Indic model of stress-cessation and self-healing assumed by mindfulness practice, concluding that it more fully reflects current findings on stress and learning. It reviews the theory and practice of mindfulness and of two less known contemplative “vehicles” preserved in Tibet, using more advanced techniques and insights better suited to lay lifestyles and secular cultures. It suggests that the Tibetan tradition of integrating all three vehicles of contemplative insight and skill in one self-healing practice should maximize coherence and effectiveness while minimizing confounding variables caused by eclecticism. Finally, the paper introduces an intervention that integrates mindfulness with techniques of cognitive analysis, affect modulation, motivational imagery, and reinforcing breathing, tailored over centuries into a complete, threefold path of self-healing. A pilot study of this intervention in women treated for breast and other gynecologic cancers suggests that the whole spectrum of Indo-Tibetan mind/body practices can be readily mastered and effectively used by Westerners to reduce stress and enhance learning and quality of life.

**Key words:** mindfulness; contemplation; imagery; self-healing; health education; Indo-Tibetan

### Background and Significance

The purpose of this paper is twofold: to review current theories and research on cognitive-behavioral health interventions and to introduce a contemplative self-healing program based on the Indo-Tibetan mind and

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health science tradition. It presupposes the convergence of several lines of research clarifying the mechanisms and health effects of mindset and lifestyle, ranging from the corrosive effects of stress-reactive habits to the health-promoting effects of positive outlook, affect and behavior.<sup>1-4</sup> As basic stress research shows the pervasive impact of stress-reactivity in promoting wear-and-tear on natural systems of immunity, tissue healing, regeneration, cognition, motivation, and learning,<sup>5-9</sup> clinical researchers and health practitioners have begun to look more seriously into techniques of stress-reduction, relaxation, positive motivation, and healthy behavior change.<sup>10-13</sup> This new clinical focus on stress-reduction and health education has been further intensified by convergent research in positive health, showing the unexpected effects of positive reinforcement and practice in promoting use-dependent increases in immunity, tissue regeneration, neural plasticity, cognition,<sup>14-16</sup> motivation, and learning.<sup>17-23</sup> This general shift is illustrated by this volume's specific focus on the role of psychosocial variables like stress or lifestyle on the wide variations recently observed in human longevity, resilience, and quality of life. Current research in this and related fields is increasingly highlighting the deficiency of conventional healthcare in mobilizing the untapped potential for self-healing and optimal health.<sup>24-32</sup> This gives compelling support to recent efforts at developing effective psychosocial, behavioral, and educational interventions in emerging fields like rehabilitation medicine, preventative medicine, complementary and integrative medicine, mind/body medicine, and positive health.<sup>33-40</sup>

This paper surveys current thinking and research in this promising area, specifically to explain the limitations of conventional interventions and to introduce our efforts to overcome those limits by adapting time-tested mind/body theories and methods from the Indo-Tibetan medical tradition.<sup>41,42</sup>

While much of this work on behavior change, including our own, has focused on cognitive

and motivational factors in the adoption of new behavior,<sup>32,43-48</sup> recently we have begun to explore the hypothesis that stress-reactivity acts as a rate-limiting resistance to learning and healthy life-change.<sup>49</sup> Consequently, we have also been shifting our focus towards the study of health interventions that include various methods to reduce stress and facilitate learning.<sup>50</sup> Only one of the NIH Behavior Change Consortium (BCC) projects addressed stress as a variable of interest. In the Mediterranean Lifestyle Trial, which was designed to help postmenopausal women with type 2 diabetes reduce cardiovascular risk, stress management was conceptualized as a key initial and long-term outcome of the trial. In addition to focusing on eating patterns and physical activity, the Comprehensive Lifestyle Management intervention incorporated a stress management component that included 20 minutes of yoga, 15 minutes of progressive deep relaxation techniques, 15 minutes of meditation, and 5 minutes of directed or receptive imagery. However, neither this project, nor any of the other Consortium projects, conceptualized stress as a barrier to maintaining new behavior change to promote health or prevent disease. We believe that this oversight reveals an important hidden weakness in cognitive-behavioral and motivational approaches to health behavior change and its maintenance.

This analysis and the findings of our work in the BCC suggest that addressing perceived stress versus life learning—not the specific health behavior of interest—may be the rate-limiting variable in helping patients initiate and sustain behavioral change over the long term. In other words, we believe that stress-conditioned resistance is the major barrier to initiating and sustaining health behavior change. Moreover, while many in the field have begun to address this variable, by integrating techniques like relaxation, mindfulness or imagery with cognitive-behavioral health education,<sup>51-57</sup> we believe that the limited effectiveness of this strategy reflects the fact that cognitive-behavioral learning models are not

well designed to address the multi-factorial nature of stress-reactivity.<sup>58</sup> Instead, we favor integrating analytic, social-emotional and behavioral insights and skills based on the same Indic model of stress-cessation and self-healing assumed by mindfulness practice.

### **Cognitive-Behavioral Models Informing Conventional Behavioral Interventions**

Although stress appears to play an important role in determining whether people undertake and maintain potentially important health-related behavior changes,<sup>59,60</sup> little attention has been focused in previous research, including our own, on the question of whether and how stress is a barrier to learning and adopting new behavior following illness episodes.<sup>61</sup> We believe this reflects the theory of mind/body causation assumed in cognitive-behavioral psychology and therapy.<sup>62-65</sup> First, cognitive-behavioral interventions assume a linear, unidirectional model of the effects learned habits of thinking have on mood, physiology, and behavior. Typical models portray habitual thinking as triggering a cascade of conditioned responses that includes learned social emotions, learned forms of behavior, and innate physiologic responses. Informed by this behaviorist view of mind/body causation, researchers exploring the complex psychobiology of stress depicted it as a “top-down” cascade following the linear stimulus-response model of classical conditioning. Thus, the individual’s distinctive response to a challenge that could cause stress has come to be viewed in cognitive-behavioral terms as a cascade of two or more learned habits that made it more or less likely to trigger the physiology of the stress response.<sup>46,66,67</sup>

The first of these habits, *cognitive appraisal*, refers to the cognitive assessment of a perceived stressor as more or less threatening, given the parallel assessment of the individual’s coping capacity and supports. Appraisal is thought to

reflect a range of learned concepts that shape the individual’s constructs of self and world, including age, gender, ethnicity, self-involvement, self-efficacy, socio economic status and social support.<sup>68-78</sup> The second habit, *affective reaction*, refers to the habitual social emotion the individual has in response to the cognitive appraisal of the stressor and his or her coping capacity and supports. Affective reactions are thought to include an individual’s range of learned stress-reactive emotions including anxiety, hostility, shame, helplessness, and hopelessness or depression. These emotions are thought to reflect emotional memory and reaction-patterns learned in previous stressful or traumatic experiences, further enhancing the sense of threat and reinforcing a negative cognitive appraisal of self and stressor.<sup>70,71,79,80</sup>

Stress-reactive emotions are then thought to trigger a third phase, the *physiological stress response*, which refers to the combination of innate physiological responses with learned forms of instinctive, stress-reactive behaviors. The physiology of the stress response is thought to include a neurologically mediated increase in sympathetic arousal in the autonomic nervous systems, known as the fight-or-flight reaction, as well as chemically mediated activation of the hypothalamic-pituitary-adrenal axis, leading to the release of catecholamines and glucocorticoids that mobilize all mind/body systems for reflexive aggressive and/or defensive action.<sup>73</sup> The final phase in the conventional model of the psychophysiology of stress, often called *adaptation*, is the long-term conditioning of mind and body to the repeated triggering of this cascade of aversively conditioned cognition, affect, and behavior. Adaptation is thought to reinforce the individual’s stereotypical habits of stress-reactivity and is known to adversely affect multiple aspects of health, aging, and mind/body capacity.<sup>81,82</sup> The model of allostatic load developed by McEwen and colleagues serves as a laboratory measure the cumulative effect of the triggering of the physiological stress response,

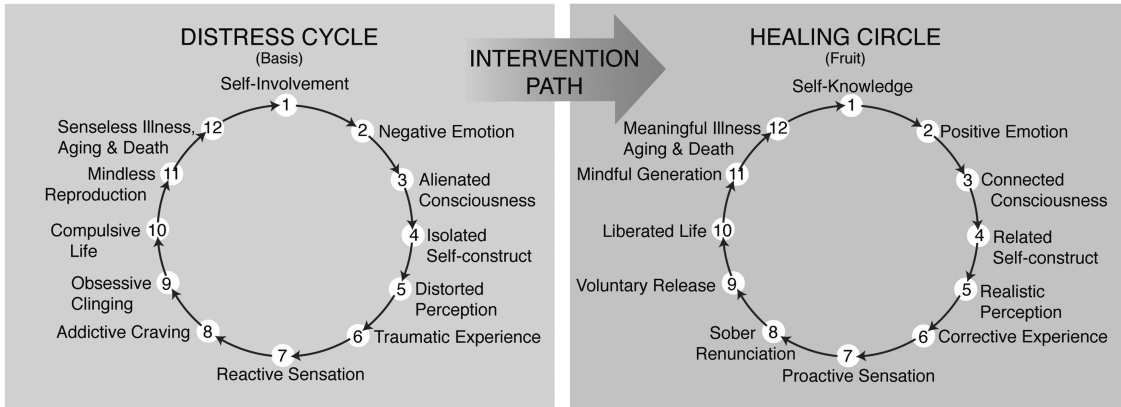
viewed as a failure to maintain allostasis or dynamic balance with the challenges posed by a constantly changing natural and social environment.<sup>83-87</sup>

### Limitations of Current Cognitive-Behavioral Models and Interventions

While cognitive-behavioral models provide a basic framework to understand stress and the stress response, we believe they are incomplete for several reasons. First, this model frames stress reduction reactively, i.e., as a primarily outward-focused, problem-specific process principally mediated by cognitive variables and styles. Since its development, however, there have been major shifts in consensus within cognitive science and stress research, where its conceptual and empirical foundations lie. According to the current consensus in cognitive science, the organization of human behavior is primarily proactive and mediated by the hierarchical integration of cognitive, affective and behavioral systems of memory, learning, and adaptation. In addition, stress research has demonstrated that stress is a nonspecific, general response that overwhelmingly represents a (short- or long-term) systems failure in adaptation at the cognitive, affective, and/or behavioral levels. Second, cognitive-behavioral models rely on a unilinear model of causal sequencing and a dualistic model of mind and body that lead to an underestimation of the role of predisposing variables (maladaptive habits causing allostatic load, and consequent wear and tear) and to a significant dissociation of cognitive mediators of coping from affective and physiological mediators. Third, being deeply influenced by the medical model of cognitive therapy, cognitive-behavioral models of stress and learning emphasize the unlearning of pathological habits of stress-reactivity while neglecting the maladaptive habits endemic in the population, as well as the potential for positive health through the enhancement of learn-

ing and adaptation above the statistically normal range.

We believe the literature, taken together with our own prior research, points to the critical role for an integrated system of stress-reduction, self-healing, and learning enrichment, not only in facilitating the adoption of new health behavior, but also in sustaining and extending healthy behavior change over time. Thus, our recent research has focused on testing whether a contemplative self-healing program of multifactorial education designed to overcome stress-conditioned resistance and enhance learning competence at multiple mind/body levels is more effective in achieving long-term behavior change than interventions targeted directly at changing health behaviors from the top down. Unlike cognitive-behavioral models, the integrative model of stress and learning assumed by our intervention drawn from the Indo-Tibetan mind science tradition frames stress reduction as a primarily inward-focused, generalized process mediated equally by cognitive, affective and behavioral variables. We believe that this model is more consistent with current cognitive science and stress research in two important ways: (1) it approaches human behavior as an active, constructive process of learned changes meant to maintain allostatic balance (Skt. *svastha*) with a changing reality; and (2) it views the distress cycle (*saṃsāra*) as a general condition of maladaptation (*vikṛti*) that reflects a (short- or long-term) systems failure of learning and self-regulation at the cognitive, affective, and/or behavioral levels (i.e., a failure of allostasis). Second, the integrative model we have been investigating relies on a reversible feedback-loop model of conditioning and deconditioning sequences and a non-dualistic, circular interaction of mind/body factors (see Figure 1). Finally, this model views the cycle of stress-reactivity as endemic to the human condition though exacerbated in the course of illness, aging, and dying; and it also views this cycle as one of two potential modes of human existence, detailing the possibility and practical steps by which it can be unlearned



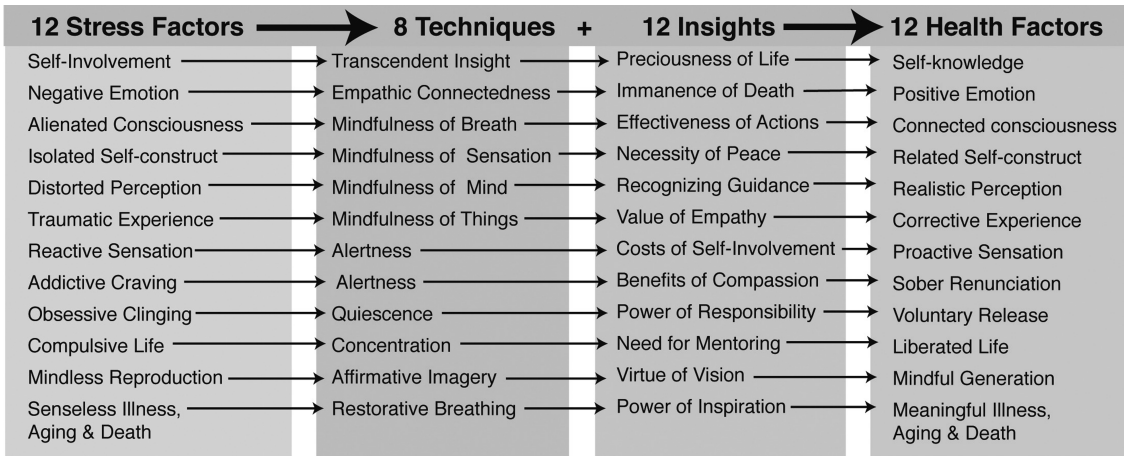
**FIGURE 1.** How the basic causality of stress is reversed through self-healing.

and replaced with a cycle of healing that leads to optimal health. Taken together, these aspects of the Indo-Tibetan model more accurately represent the primary role of predisposing variables (causing allostatic load) and the mutual reinforcement of cognitive, affective, and physiological mediators of maladaptive versus adaptive behaviors and their respective outcomes.

In practice, the Indo-Tibetan model of mind and health offers not only a more complete and accurate picture of the psychobiology of stress and healing, but is also better suited to the learning and maintenance of healthy behavior change in a general population. This is in large part because it is not illness based, but rather addressed to helping ordinary individuals to understand and face the inexorable stresses of the human condition. Faced with the stressful facts of life, including the inexorable realities of illness, aging, and death, most humans feel severe stress reflecting a real inability to effectively understand and respond to such ultimate challenges. This is often exacerbated by cognitive-behavioral interventions based in mainstream Western healthcare, which is not only illness based in a way that pathologizes normal human experience but is also framed in a quantitative, mechanistic language that only professionals can understand. Many women after undergoing the ordeal of diagnosis and treatment of breast cancer, for instance, suffer a sub-

clinical syndrome resembling post-traumatic stress disorder (PTSD).<sup>88–93</sup> The common inclination of research clinicians to treat this condition as a disorder or comorbid feature of an illness episode reflects the bias cognitive-behavioral and psychodynamic therapies share with our medical system as a whole. That is, the failure to acknowledge illness, aging, and death as existential features of the human condition, rather than alien intrusions to be eliminated, avoided, or denied.

In contrast, the basic model of mind/body health in the Indo-Tibetan tradition is explicitly aimed at teaching the individual the skills and insights necessary to master the human condition of distress-prone living. Its existential or positive health orientation, language, and methods typically help individuals feel that they are being empowered to face the enormity of the challenge of resuming life in the wake of a major illness. This proactive focus on the big picture as opposed to the conventional medical focus on disease specific behavior typically translates into greater sense of coherence, meaning, or calm in individuals participating in contemplative interventions from the Indo-Tibetan tradition. Furthermore, these interventions are not just tailored to reduce general stress-reactivity that might impede learning, but are also proactively equipped with positive health skills and insights that facilitate and enhance learning and health.



**FIGURE 2.** Techniques and insights offer a gradual pathway from stress to healing.

This means that one and the same intervention can be designed to help carry an individual through the initial phase of overcoming resistances to healthy behavior change as well as subsequent phases of maintaining and extending healthy life change into the domain of optimal health.

For most if not all diseases, behavioral and biological risk factors occur simultaneously and require multidisciplinary research on integrative health, which “is key to developing an understanding of how health at the individual and societal level is maintained.”<sup>73,94</sup> Integrative health is thus a broad framework that encompasses complex biological, psychological, cultural, and social pathways to health and disease.<sup>31,73</sup> Because even transactional cognitive-behavioral models tend to view mind and body in terms of linear causal sequences, predisposing or synergistic variables like a history of trauma, anxiety, depression, or addictive disorders are seen as more or less independent variables whose etiology and treatment are not an integral part of an individual’s pattern of stress-reactivity or resistance to learning and higher development. We know of no previous work that has demonstrated the relationship of perceived stress, learning, and healthy behavior change, and we know of no previous work that has attempted to test intervention approaches designed to influence the mainte-

nance of health behavior change by focusing on reducing the impact of perceived stress on learning and positive adaptation. In addition, cognitive-behavioral interventions informed by the unilinear models of conventional medical research and practice tend to approach all individuals with a generic diagnostic mindset and monolithic prescription of insights and skills. However, each individual has their own pattern of mind/body stress-reactivity.<sup>75,95,96</sup> Factors such as history of exposure to chronic stress or trauma may condition diverse styles of psychophysiological stress-response.<sup>60,76–78,97</sup> Further, individuals vary widely in deficits and/or strengths in cognitive and emotional and behavioral intelligence, affecting their receptivity to different modes of learning and styles of teaching. Consequently, more effective interventions will also need to integrate a range of diverse insights and skills suited to the range of individual patterns of reactivity and learning, as does the integrated contemplative intervention we have been studying (see Figure 2).

### Recent Mind/Body Interventions and the Indic Contemplative Science Tradition

Growing interest in the clinical efficacy of stress-reducing interventions for a wide range

of medical conditions can be traced to the convergence in the 1970s of two lines of investigation begun in the 1950s.<sup>98,99</sup> By integrating pioneering stress research with the first physiological studies of Indian meditation, Herbert Benson laid the groundwork for a new, “mind/body” approach to psychosomatic or behavioral medicine.<sup>100</sup> Benson showed that patients with ischemic heart disease and hypertension seemed to benefit from learning a meditation-based method of eliciting “the relaxation response.”<sup>101,102</sup> Gaining a broader evidence base since the 1980s,<sup>74,103–106</sup> mind/body medicine was recognized by the National Institutes of Health as a promising new clinical research field, while meditation-based stress-reduction programs gradually displaced hypnosis and biofeedback as the standards in psychosomatic research and practice.<sup>107,108</sup>

Despite this shift and the growing research consensus behind it,<sup>41</sup> the conventional wisdom that mind/body interventions function like hypnosis (by simple relaxation and/or suggestion) continues to limit understanding of meditation-based interventions and to obscure their relevance to the critical problem of learned health behavior.<sup>109</sup> The clinical consensus emerging around the mindfulness-based stress reduction program (MBSR) developed by Jon Kabat-Zinn has helped to focus research into the mechanism and clinical potential of such interventions.<sup>110–113</sup> Central to this consensus is a new view of meditation as a discipline of attention<sup>114</sup> and a new model of stress-reduction as a method of facilitating healthy behavior change *via* the enhancement of learning.<sup>113,115</sup> This model is consistent with the learning paradigms current in cognitive neuroscience<sup>116</sup> and cognitive therapy,<sup>63</sup> as well as with classical Indo-Tibetan views of meditation as a basic educational method with medical applications in self-healing, illness-prevention, and healthy aging.<sup>117–119</sup>

Conversely, a link between stress-reduction and learning competence also helps to explain

the negative correlation we have observed between stress and behavior change. Individuals under stress are less likely to risk entertaining new ideas or behaviors and more likely to engage in reactive patterns defensively and automatically, without the benefit of higher cognitive assessment and innovation or higher social coping behaviors.<sup>120,121</sup> Consistent with this negative correlation is the positive correlation between positive stimulation and learning found in studies of the effect of enriched environments on neural plasticity and learning competence. It now appears that the combination of stress-reduction and learning enrichment is gaining further support from current hypnosis research, where learning models of hypnosis are further challenging the conventional wisdom that mind/body interventions work via a placebo-like mechanism involving relaxation and suggestion.<sup>114,122,123</sup> We believe that the intervention approaches most likely to yield effective reduction of stress-conditioned behavior, and thus lead to better maintenance of behavioral change, are those approaches that utilize what has been learned from emerging research on meditation-based stress reduction that focuses on attention variables and learning competence.

In order to appreciate the potential advantages of a contemplative approach to learned behavior change, we must first consider the limitations of previous strategies combining cognitive therapy with relaxation techniques and/or supportive interventions. The new learning paradigm in stress-reduction has fueled a long association of mind/body interventions with cognitive therapy.<sup>124</sup> Some have gone so far as to integrate mindfulness skills into cognitive treatments, notably in personality and mood disorders.<sup>51,125–127</sup> The strategy of these interventions is to use mindfulness as an active ingredient that supports the learning and maintenance of skills such as cognitive reframing, emotional self-regulation, and social effectiveness by building capacities for objective self-observation, affect tolerance, and presence of mind.<sup>128</sup>

Although comparing meditation-based methods with cognitive therapy is a helpful corrective to hypnosis-based misconceptions of mind/body methods, remembering their differences is equally important.<sup>128</sup> In particular, it helps to recall that cognitive therapy may also be compared with hypnosis in that it combines “top-down” suggestive methods like thought-replacement with relaxation and/or support in ways that replicate the combination of suggestion and absorption in hypnotherapy. Underlying the surface contrast between the learning paradigm of cognitive therapy and the manipulative paradigm of hypnotherapy is a deeper similarity: both were developed to overcome the persistent effects of aversive conditioning without full knowledge of how the psychophysiology of stress reinforces such negatively conditioned habits at various mind/body levels.

In contrast, the learning paradigm of Indian contemplative therapies revolves around a contemplative model of the psychophysiology of stress (Figure 1), which describes how stress reinforces aversive conditioning and how healing and learning critically depend on reducing stress and extinguishing cognitive, affective, and behavioral stress-reactivity.<sup>129</sup> Although not fully articulated in any Western psychology,<sup>3,130</sup> such an integrative stress-based learning paradigm could account for the limitations of mind/body interventions observed in recent studies. One such study of behavior change in patients with heart disease (the ENRICH trial) used an intervention combining cognitive therapy for depression with social support and showed less depressive symptoms, greater social ties, but no difference in cardiac events.<sup>131,132</sup> From the perspective of an integrated stress-learning model, the limitations of such interventions may be accounted for by several factors.

First, while classical cognitive therapy targets depressive or anxious thought patterns, it neglects self-involvement and other defensive thought patterns that promote stress-reactive emotions like hostility and clinging.<sup>133</sup> While

cognitive therapy teaches skills for modifying depressive or anxious thought patterns, it typically does not teach skills for directly modulating anger, fear, shame or other stress affects themselves.<sup>125,134</sup> Second, while social support in general seems to counter the effects of stress, psychoanalytically oriented individual and/or group supports may encourage the “ventilation” of negative thoughts and emotions that reinforce stress-reactivity and inhibit learning, directly or indirectly.<sup>135</sup> Third, the variable effects of unstructured social support must be expected even with standard psychiatric interventions such as supportive-expressive therapy or clinical support groups, since any interventions not structured to systematically reduce stress and promote learning may overlook or unwittingly reinforce one or more factors of stress-reactivity and learning-resistance.<sup>136</sup>

Thus, a meditation-based approach to stress reduction and behavior change represents a significant innovation in that it offers a promising alternative to the more widely practiced cognitive-behavioral treatments reported in the literature. However, there is a need to test whether contemplative approaches that integrate cognitive-affective-behavior learning are more effective by helping to teach patients how to reduce stress-conditioned resistance and enhance learning and behavior change than an intervention explicitly designed to motivate behavior changes piecemeal.

A more current strategy under study by some researchers is combining cognitive therapy with mindfulness-based stress-reduction rather than with relaxation or support.<sup>133</sup> Patients learn about the basic discipline of attention and about impact of stress on the mind and body. Breathing exercises involving deep abdominal and slow breathing helps to deepen relaxation and facilitates receptivity to learning. Then patients are introduced to advanced practices including cognitive reframing in order to alter stress reactive thinking and learn how not to identify with negative thinking or emotion. They learn not to imagine the worst, enhancing the threat of everything. They learn to override



a stress reactive imagination. In some interventions, patients then learn to increase positive emotions through imagery and visualization.

Behavioral interventions even include skills-learning programs for interpersonal effectiveness, emotion regulation, and distress tolerance.<sup>125,137</sup> While pilot studies so far have found such hybrid interventions as or more successful than conventional modalities,<sup>138,139</sup> in the absence of full-scale randomized controlled trials it is unclear to what extent they have resolved internal contradictions and overcome limitations caused by mixing conflicting paradigms and methods.<sup>140</sup> One such intervention based on the pioneering work of Masha Linehan, dialectical behavior therapy (DBT) tries to hybridize a biological disease model of borderline personality disorder with a cognitive therapy model of desensitization; Western philosophical models of dialectical thinking with Buddhist theories of relativity and interdependence; and mindfulness skills aimed at a general stress response with psycho-education aimed at disease-specific psychopathology.<sup>125</sup> Another hybrid intervention developed by Teasdale and others, mindfulness-based cognitive therapy (MBCT) uses mindfulness to build more objective self-awareness or metacognition, enhancing the effectiveness of conventional cognitive therapy for depression. Other examples of eclectic interventions are common in mind/body medical research and practice.<sup>52,53,126,141</sup> As we see it the next challenge is to develop and/or adapt interventions whose assumptions and methods are as coherent as possible.<sup>128</sup> This should minimize confounding variables internal to those interventions and maximize their effectiveness and research transparency.

While it is commonly assumed that there is a large literature on the impact of stress-management programs, in fact there is remarkably little empirical data. Several small trials evaluating the impact of mindfulness-based stress reduction techniques have shown that daily hassles and overall psychological distress were significantly reduced.<sup>54,55,112,142</sup> A systematic review of studies of mindfulness-based

stress reduction demonstrated that the sample-size weighted mean effect size was 0.59. The standard error of the effect size estimate was 0.41.<sup>128</sup> Another of our aims in drawing on the Indo-Tibetan tradition is to build on its many advantages as a standardized, text-based tradition of academic medicine and psychology. The extensive methods of educating and training expert practitioners as well as educating the general public will no doubt facilitate the work of making interventions more reproducible as well as more effective and widely applicable.

### **The Theory and Practice of Contemplative Self-Healing Interventions**

The contemplative self-healing program we have been studying has been designed to meet these challenges. Rather than mix mindfulness practice with Western medical techniques of cognitive therapy, dynamic therapy, hypnotherapy, or guided imagery, our intervention integrates mindfulness with techniques of cognitive analysis, affect modulation, motivational imagery, and reinforcing breathing that have been designed and tailored over thousands of years to complement and advance the contemplative science of self-healing and mindfulness practice. Extending the work of pioneers influenced by the Hindu Yoga, Theravāda Buddhist, and Zen Buddhist traditions, it draws on the West's more recent encounter with the civilization of Tibet, which preserved the Indian mind and health sciences in their most complete and advanced form, as refined in the world's first university at Nālandā.<sup>143</sup> Rather than teaching mindfulness alone or mixing it with the distinct paradigms and methods of cognitive therapy or dynamic therapy, our intervention exploits the fact that the Indo-Tibetan mind and health science tradition preserves what may be the world's most complete contemplative system of cognitive-affective-behavioral stress-cessation and learning enrichment, including three complementary systems

of mind/body methods designed to overcome stress-conditioned resistances to healthy behavior change. While prior interventions extracted mindfulness from its niche within the continuing, multidisciplinary curriculum of Indo-Tibetan health education, our intervention draws on all three core disciplines of that curriculum and integrates the preliminary system of mindfulness practice with intermediate and advanced systems of contemplative practice aimed at initiating and maintaining cognitive-affective-behavioral change.

The theory underlying contemplative stress-cessation, self-healing, and optimal health in the Indo-Tibetan tradition is defined in the four noble truths (*catvāryasatyā*), the basic framework of all Buddhist learning, science, and civilization.<sup>124</sup> According to the first two truths—suffering and origin—the basic condition of human life is one of preventable stress and distress (*dukkha*) whose origin lies in a causal cycle made up of twelve mutually reinforcing mind/body factors. The cycle is rooted in two evolutionary predisposing factors called misknowledge (*āvidyā*) or self-involvement (*ātmagraha*) and unhealthy emotion (*akuśala-samskāra*) or addictive emotion (*kliṣṭa-samskāra*). These predisposing factors then condition the development of self-consciousness and perception in a way that promotes stress-reactive experience and motivation as well as stereotyped, compulsive behavior and life. Thus, the Indo-Tibetan model anticipates the findings of contemporary stress research, by distinguishing cognitive, affective and behavioral aspects of stress-reactivity. It refines and expands on current models by identifying two key predisposing variables that serve as root causes of stress and learning resistance. And it also breaks down each general phase into several steps, further clarifying the multiple factors reinforcing stress-driven behavior and lifestyles. Finally, it expands the scope of current models in both the macroscopic and microscopic dimensions, by showing how the basic human condition of misknowledge-conditioned development operates within three different time frames, that is:

generations, within lifetimes and from moment to moment.

According to the crucial third and fourth truths—extinction and path—Shakyamuni learned that this causal cycle could be changed/reversed into a cycle of healing and learning in which realistic self-knowledge, positive motivation, and healing virtues gradually generate a life of optimal peace, freedom, longevity, and happiness. Equal in importance yet opposite in direction to the second truth of origin, the fourth truth of extinction describes the fruit of his journey of contemplation: a circle of healing and learning in which the mind and body are gradually freed of learned distress-habits as well as the innate instincts of stress and violence underlying them. Thus the four noble truth framework of Indic mind/body practices revolves around the psychobiological model of stress-reactivity and stress-cessation spelled out in the second and third truths, which describe how distress-prone thinking, feeling, and action reinforce suffering and how healing and learning depend on eliminating distress and promoting health by replacing stress-reactivity and its causes with self-healing and its causes (Figure 1).

Although Figure 1 numbers each factor and depicts the link between factors as linear and unidirectional, this is mainly for ease of presentation. Both the distress cycle and the healing circle are understood as highly dynamic and interactive processes which can be seen as operating in many different biological time frames, from the intergenerational frame of reproduction and development, to the one-life frame of individual development, and the “subtle” frame of moment-to-moment reinforcement versus plasticity and learning. Likewise, each factor is understood as involved in a dynamic, reversible equilibrium with its neighbors and through them with all other factors in the cycle. This complex dynamic process of mind/body causality is thus not too “loose” to explain regularities but not too “tight” to preclude learning, hence its name, “dependent origination” (*pratītyasamutpada*). This highly

dynamic, interactive view of mind/body causation is what lays the foundation for recognizing the binary potential of human learning and development discovered by the Shakyamuni.<sup>144</sup> Anticipating current notions of self-regulation (*yogacāra*) and use-dependent plasticity (*praśrabdī*), this basic model supports the linkage between stress and learning, compulsive reactivity and positive health, that is key to the explanatory elegance and power of the four truth framework. Hence, this sophisticated view of mind/body causation helps to make the Indo-Tibetan model both more accurate and complete than current cognitive-behavioral models.

Most important to understanding the practice of self-healing in this tradition is the fourth truth of the path that links the basic condition of suffering to the fruitional condition of optimal well-being.<sup>145</sup> The truth of the path spells out eight steps towards self-healing that may be simplified into three synergistic disciplines of reeducation: wisdom (*prajñā*), meditation (*samādhi*), and ethics (*śīla*). Meditation aims at developing conscious regulation of the workings of the mind, nervous system, and physiology through control of attention, concentration, breathing, and posture. Wisdom aims at clear and objective knowledge of reality through analysis that helps the mind expose and reform unrealistic, self-involved views. Ethics aims at developing skilled actions that are effective in achieving personal and social aims like well-being, freedom, and happiness. Taken together, the third and fourth truths transform the basic science of the first two truths into a positive framework of stress-cessation, self-healing, and optimal health, by describing the natural human potential for self-healing that reverses the cycle of stress-prone living as well as the complete gradual path of unlearning and relearning that helps ordinary individuals access that self-transcendent potential (*tathagata-garbha*).

The path is often further simplified into a dual format combining wisdom or insight with contemplative-ethical technique (*upāya*). Prac-

tically, the path of contemplative self-healing is not limited to stress-reduction but specifically targets each of the twelve factors of distress with specific insights and techniques that systematically foster the unlearning of distress factors and the enriched learning of positive health factors.

As mapped in the global framework of mind/body practices outlined elsewhere<sup>144</sup> (see Table 1), the four noble truths leading to personal freedom were later enhanced by the addition of two other “vehicles” for traveling the contemplative path using techniques and insights better suited to the conditions of secular society and culture. The techniques and insights of the first vehicle of practice, integrated in current interventions like MBSR, DBT, and MBCT, focus on mindfulness and renunciation of personal distress and compulsive habits. Those of the second vehicle, minimally addressed by current mindfulness interventions, focus on self-transcendent insight and empathic skill to transform stress-driven social perceptions and emotions. Those of the final vehicle, only integrated in our intervention, focus on developing the vision and inspiration to reshape a stress-driven cultural form of life. Key to the development of this complex curriculum were the monastic universities of classical India exemplified by Nālandā, committed to making contemplative arts and sciences available to the secular and lay communities of India. Tibetans adopted the Nālandā tradition of combining all three vehicles into a gradual path (Skt. *pathakrama*, Tib. *lam rim*) tailored to the demands of teaching contemplative self-healing to lay people in a highly active, secular culture.<sup>146</sup>

Table 1 outlines this comprehensive tradition of integrating all three vehicles of practice, mapping the practices following a cross-cultural matching of the esoteric integral process (*yoga tantra*) map of the nervous system with modern triune maps developed by Freud, Panksepp, and others. In addition, it maps the way in which Indic models and methods anticipated and expand on the current model of allostatic load, by describing the effects of stress

**TABLE 1. Comparative psychoneural map of stress-reduction and learning enrichment**

Practice phase	Neural level	Mental level	Blocks (drag)	Aids (lift)	Motive/Intent	Arousal/Attention	Skill level	Insight level
Personal care	Coarse/Cortical	Waking/Fantasy	Traumatic cognition	Focus/Refocus	Relief/Release	Low/Inclusive	Reflection/Mindfulness	Analytic/Gestalt
Social concern	Subtle/Limbic	Daydream/Dreaming	Traumatic affect	Discipline calm	Care/Concern	Low/Exclusive	Alertness/Effort	Imaginal/Visceral
Process integrity	Subtlest/Core	Orgasm/Sleep	Stress instincts	Mastery/Flow	Joy/Mastery	High/Integral	Devotion/Flow	Euphoric/Ecstatic

in terms of the accumulation of negative energies (*prāna*) and drops (*bindu*) and by linking these to the stress-reactive cognition, affect and instincts that pose blocks (*avāraṇa*) to learning, as well as to the contemplative aids or powers (*bala*) that help overcome those blocks. Elsewhere,<sup>144</sup> we have argued that these blocks and aids may be conceptualized as *allostatic resistance* or *drag* versus *allostatic facilitation* or *lift*, respectively.

In terms of clinical application, our contemplative intervention translates the gradual path methods from the Nālandā tradition into a series of eight skills or techniques and twelve insights or strategies for healthy change, all tailored to the needs of mainstream Westerners (Figure 2). The skill sets and insights are taught in a 20-week contemplative learning program and range across all three phases of the continuum of mind/body practices mapped in a global framework of mind/body practices. The program introduces this comprehensive system in two modules: 8 initial weekly group classes focus on teaching meditative techniques or skill sets; and another 12 weekly classes focus on teaching contemplative insights and lifestyles. Outside of the structured 90 minute classes, which combine lecture and discussion with experiential learning exercises, homework consists of daily practice guided by meditation CD's and by structured manuals. Taught in adapted Tibetan style, individuals learn insights and skills suited to various needs of daily living so that they can use the ideas and tools best suited to the complex and varied challenges of their life in the world.

In the first 8 weeks, three contemplative techniques are introduced. The discipline of combining stable open-mindedness with heightened attention is the basic skill set of mindfulness. This is complemented by an intermediate level skill set of social-emotional self-care called mind-clearing or mind-training (Skt. *buddhisoddhana*, Tib. *blo-byong*), meant to help participants protect their self-healing practice from the social stresses of everyday life. Finally, visualization, affirmation, and deep breathing are taught as an advanced skill

set called the action or performance process (Skt. *kriyā-cārya-tantra*, Tib. *bya-spyod-rgyud*) to enrich and speed the learning of contemplative insights and healthy lifestyle changes. In the second, 12-week module on lifelong stress-cessation and optimal learning, all three skills are combined to speed the mastery of contemplative insights and lifestyles as well as to help students integrate them through a multi-dimensional visualization-based contemplative learning practice that influences cognition, emotion, physiology, and activity synergistically.

The techniques all involve the intensification, stabilization, and effective deployment of attention to expose and reform automatic learned habits of mind, body, emotion, and action as well as the innate instinctual programs underlying them. The insights direct attention towards the discrimination of unhealthy habits and the conceptual understanding and experiential learning of healthy alternatives.

The results of a pilot study of this intervention in 46 women recently treated for breast cancer and other gynecologic cancers suggest that the whole spectrum of Indo-Tibetan mind/body practices can be readily mastered and effectively used by contemporary Westerners to reduce stress and optimize learning and quality of life.<sup>50</sup> The study suggests that an integrated program of contemplative self-healing may be effective in reducing the distress and disability experienced by women who have been treated for breast or gynecologic cancer. Our findings indicate that the intervention improves overall well-being, as well as emotional well-being and function, as measured by scales designed to assess quality of life in cancer patients. This intervention was associated with reduced angst and increased coping using fighting spirit-positive orientation. Changes in quality of life were correlated with changes in biological measures known to be reflective of stress, including cortisol levels, lymphocyte subtypes, and natural killer cells. The magnitude of within-patient difference is greater than that reported in other studies and is equaled by only one

other methodologically rigorous trial in breast cancer patients. That trial evaluated a 15-week program of three times a week aerobic exercise versus a control group. It is, however, extremely difficult to get patients to engage in or sustain this level of aerobic exercise; and less intense physical activity has not been effective in improving quality of life in women with cancer.

Finally, although this integrated contemplative intervention builds on Indian and Tibetan cultural traditions and practices, and teaches skills and insights based on the tradition, it does not require patients to adopt alien ideas or beliefs. If it did, it would have limited applicability. In fact the intervention was designed and refined to make the most effective methods of contemplative learning available to lay and secular communities. The acceptability of the intervention was clear in the qualitative comments of the patients who participated.

## Conclusion

Given the interest we all have in recovering from and preventing disease while enhancing health, longevity, and quality of life, the importance of the interventions discussed in this paper should be obvious. Also clear from our review of the field is that this is a crucial time for complementary medical research, when the importance of behavioral health is being reinforced by encouraging findings in many areas. This paper draws attention to the possibility that a promising new field may be further advanced by contact with a time-tested non-Western scientific tradition of reducing stress and promoting optimal learning and health. The very fact that this may be true raises a number of complex issues of methodology. Perhaps most crucial, it challenges our preconceived bias that no human system of knowledge or expertise other than modern Western science and technology can possibly offer a complementary science: a coherent, reproducible system of alternative theories and methods that complements those of conventional biomedicine.<sup>42</sup> Since these complex issues have

been more fully explored elsewhere,<sup>143</sup> here it must suffice to say that the distance in theories and methods between Western behavioral science and Indo-Tibetan contemplative science is not as great as we had imagined. Growing access to a comprehensive array of traditional methods for teaching contemplative theories and practices of optimal health to experts and the general public raises the possibility of more effective, reproducible interventions in complementary medicine,<sup>49–51</sup> mind/body medicine,<sup>147–149</sup> public health, and education.<sup>142</sup> In particular, the Tibetan tradition is unique in preserving what may be the world's most rigorous and comprehensive systems for optimizing mental functioning as well as quality of living, aging, and dying.<sup>42</sup> Most intriguing is the fact that these systems include ways of teaching a variety of individuals of different inclinations and temperaments a variety of methods suited to a variety of sustainable lifestyles.

The next steps are to establish the effectiveness of this intervention in a full randomized breast cancer trial as well as in other promising clinical areas, such as cardiac rehabilitation and mood disorders. If such trials show effectiveness, it would be enormously useful to those who face the challenges posed by the limits of conventional biomedicine in rehabilitation, prevention, and positive health. Finally, if effectiveness and mechanism are established, this and similar contemplative interventions—integrated, manualized, and reproduced in disparate cultures over thousands of years—could help raise research and clinical standards in a promising, emerging field in healthcare.

## **Appendix A: Structure and Content of the Contemplative Self-Healing Program**

### **Class Format**

The intervention provides psycho-education in a group setting. Each class is divided into the following parts:

Part 1: Initial Guided Meditation Session: 15-minute initial practice of the guided meditation of the week.

Part 2: Question and Answer Session: 45 minutes of structured questions and answers between participants and instructor, in which each participant is encouraged/called on to show their comprehension of material and to report on homework practice.

Part 3: Lecture-Discussion Session: 30 minutes structured lecture-discussion introducing specific principles and practices of meditation-based behavior change, in which participants are encouraged/called on to check comprehension (syllabus below).

Part 4: Final Guided Meditation Session: 15-minute final practice of the guided meditation of the week.

### **First Segment: Initial 8-Week Program in Basic Meditative Techniques**

The weekly syllabus of principles and practices taught and exercised in the first eight-week program was as follows:

#### ***Week 1: The Basic Principles and Skills of Self-Healing***

Principle: People need skills that help them face illness and stress as opportunities for self-healing

Skill: Beginning mindfulness, focused on breath and body

Objective: Participants learn the four noble truth framework of self-healing, as well as the definition of basic mindfulness practice as a discipline of stable open-mindedness and attention. Regarding mindfulness, they learn the two main types of resistance to open-minded attention: distraction and dullness, and how to counteract these by exercising the “mental muscles” of mindfulness and alertness. The role of attention as the rate-limiting step in exposing and overriding normally automatic habits is explained to show how mindfulness lays the foundation of self-healing. Participants have an initial and final experience of guided mindfulness

focused on breath and body, and are prepared to practice it within and between meditation sessions as homework.

### ***Week 2: The Dependent Origination of Suffering***

Principle: Recognizing the causal cycle of distress and how mindfulness skills help to break it

Skills: Mindfulness and alertness, focused on sensation

Objectives: Participants review the 12 factors and four phases of the distress cycle, as well as their role in undermining healing, learning, and quality of life. They focus on the critical third phase where one finds the weakest link most readily broken by mindfulness: the link between addictive craving and obsessive clinging. Regarding mindfulness, they learn how mindfulness and alertness focused on sensation and emotion serve as keys to exposing and renouncing normally automatic stress-reactions driving compulsive behavior. They have an initial and final experience of guided mindfulness focused on sensation and emotion, and are prepared to practice it within and between meditation sessions as homework.

### ***Week 3: Our Potential for Ending the Cycle of Suffering***

Principle: Recognizing the human potential for freedom of mind and action, and how mindfulness can help actualize it

Skills: Mindfulness and quiescence, focused on mental states and processes

Objectives: Participants are introduced to the three levels of consciousness and neural process—coarse, subtle, and extremely subtle—as well as to the gradual way mindfulness of mind helps attention gain the stable focus needed to influence deeper mind/body processes. In particular, they explore the way mindfulness and alertness deepens into quiescence and transcendent insight, allowing the mind to expose and analyze the perceptual and predisposing factors that anchor the distress cycle. Participants have an initial and

final experience of guided mindfulness and quiescence focused on consciousness and its processes, and are prepared to practice them within and between meditation sessions as homework.

### ***Week 4: The Lifelong Path of Contemplative Self-Healing***

Principle: Applying mindfulness skills to foster lifelong self-healing through wisdom, concentration, and ethics

Skills: Mindfulness and concentration, focused on causal elements and events

Objectives: Participants learn about the three disciplines and phases of contemplative self-healing as well as the three kinds of support for maintaining contemplative learning and healthy life change. They are introduced to single-pointed and equipoised concentration as the athletic pinnacle of attention, only possible through the synergy of “natural focus” with the highest levels of healing insight and motivation. They have an initial and final experience of guided posture and breathing techniques (akin to Hatha yoga) that help support concentration, motivation, and wisdom, and are prepared to practice them within and between meditation sessions as homework.

### ***Week 5: Deconstructing the Distress-Prone Personality***

Principle: Recognizing the need for skills to help expose self-involvement and destructive emotions

Skill: Combining self-analysis with quiescence

Objectives: Participants learn how involvement with a traumatized, childhood sense of self serves as the root of the cycle of distress-prone life, predisposing us to negative emotions and the compulsive personality style and lifestyle they promote. Practically, participants learn to combine meditation with self-analysis as well as the fourfold framework for exposing and analyzing self-involvement along with the habits it supports. They have an initial and final experience of guided analytic

insight meditation, and are prepared to practice it within and between meditation sessions as homework.

### **Week 6: Cultivating a Self-Healing Personality**

Principle: Recognizing the need for skills that help build objective self-knowledge and positive social emotions

Skill: Transforming social life through contemplation on empathy

Objectives: Participants learn about the role of objective self-knowledge and positive social emotions in transforming a distress-prone social self and life into a self-healing personality and lifestyle. Practically, participants learn how combined quiescence and insight contemplation are used to transform negative social emotions like attachment, anger, envy, and shame into positive emotions like love, care, joy, and peace using the fourfold framework of social self-transformation. They have an initial and final experience of imagery-based social-emotional contemplation, and are prepared to practice it within and between meditation sessions as homework.

### **Week 7: Envisioning and Rehearsing a Self-Healing Life**

Principle: Recognizing the need for skills to help deconstruct and reconstruct habitual perception

Skill: Transforming cultural perception through role-modeling imagery and affirmation

Objectives: Participants learn about the role of affirmative imagery and recitation in transforming habitual distress-prone cultural perception of the world into a self-healing vision of better ways of being in a more ideal world. Practically, participants are shown how to craft their own image of an ideal healer or healthy self, as well as a self-healing affirmation. They have an initial and final experience of guided visualization and recitation as a vehicle for envisioning and rehearsing a healthy vision of a better self and world, and are prepared to practice

them within and between meditation sessions as homework.

### **Week 8: Energizing and Realizing a Self-Healing Life**

Principle: Learning the role of skills that help transform stress physiology through healing energy and chemistry

Skill: Self-transformation through recitation and breathing

Objectives: Participants review the role of advanced recitation and breathing techniques in developing conscious control over neural energies (*prāṇa*) and drops (*bindu*) that help energize and realize a self-healing life. They learn how visualization-guided abdominal breathing and breath-holding help access and harness the positive energy and chemistry of healing and learning. Practically, participants have an initial and final guided experience of deep abdominal breathing and breath-holding exercises, and are prepared to practice them within and between meditation sessions as homework.

At the end of the initial 8 weeks participants are practicing an integrated meditation exercising their mindfulness, quiescence, and transcendent insight skills within a guided social-emotional visualization, enhanced by affirmative recitation and deep breathing.

At this point, participants are familiar enough with the basic techniques of mindfulness, social-emotional insight meditation, and visualization to build on those skills with a sequence of 12 progressive contemplations. These contemplations are meant to help individuals develop healing insights and strategies that galvanize their break with the cycle of distress and foster a new self-healing outlook, attitude, and lifestyle. Following the gradual path method of the Indo-Tibetan tradition, these contemplations start by prompting a fresh analysis of the most basic facts of life and build one theme at a time towards insights into the highest reaches of human potential. The method of gaining insight is one of five step contemplation, beginning



with discursive analysis, moving through analytic reflection on what has been learned to analytic and focused contemplation within meditation sessions, finally culminating in practical application in dialogue with one's human potential, meditatively evoked as a visualized encounter with an ideal healer or healthy self set in a visualized ideal healing and learning environment.

### **Second Segment: 12-Week Program in Contemplative Insights and Lifestyles**

The syllabus of insights reviewed in the second segment of the intervention program is as follows:

#### ***Week 9: Recognizing the Preciousness of Human Life***

Insight: Taking illness as an opportunity to make life more meaningful

Practice: Correcting self-limiting views of life through imagery-based insight meditation

Objective: Participants reexamine their familiar view of human life, its meaning and potential, in light of the greater freedom and responsibility possible for those who exercise mindfulness, alertness, and other contemplative "muscles." Challenging extreme views of mind as having little or no lasting effect or as solely dependent on the will of a higher power, this session explores the possibility of a middle way in which exercising the human mind's full potential for learning and change is seen as the real opportunity of life, the best chance to make a deep and lasting difference in the quality of life for oneself and others. Its intent is to counter the stultifying forms of self-involvement, from self-indulgence to self-pity and self-righteousness.

#### ***Week 10: Facing Impermanence and the Immanence of Death***

Insight: Using the immanence of death to prompt self-healing and self-change

Practice: Breaking through denial based on ignoring the immanence of death

Objective: Participants reexamine their familiar view of death, its nature and meaning, in light of the greater freedom and responsibility possible for those who exercise mindfulness, alertness, and other contemplative "muscles." Challenging extreme views of death as a moment of final annihilation or judgment, this session explores the possibility of a middle way in which death is seen as the touchstone for the hard choices that can make life more enjoyable and meaningful; a constant reminder of the importance of letting go of illusions and embracing the present as it is. Its intent is to counter negative emotions that stem from the denial of death and other challenging facts of life.

#### ***Week 11: Recognizing the Effectiveness of Human Action***

Insight: Making a real difference for oneself and the greater world

Practice: Seeing each act as an opportunity to change life for better or worse

Objective: Participants reexamine their familiar view of human action, its nature and consequence, in light of the greater freedom and responsibility possible for those who exercise mindfulness, alertness, and other contemplative "muscles." Challenging extreme views of human behavior as determined by causes beyond our control or as predetermined by God, this session explores the possibility of a middle way in which every act of body, speech, or mind has an inevitable consequence on our development, incrementally altering our lives in ways that make us more or less fit for health, freedom, and happiness. Its intent is to counter the sense of alienation and powerlessness that comes of minimizing human freedom and responsibility.

#### ***Week 12: Committing to the Necessity of Inner Peace***

Insight: Recognizing that real peace of mind depends on inner not outer conditions

Practice: Seeing peace as a choice to accept what is, without illusions or violence

Objective: Participants reexamine their familiar view of peace, its nature and benefits, in light of the greater freedom and responsibility possible for those who exercise mindfulness, alertness, and other contemplative “muscles.” Challenging extreme views of contentment as dependent on the satisfaction of instinctive needs or as solely reflecting the grace of God, acceptance of others or God, this session explores the possibility of a middle way in which peace is the developmental effect of adopting an outlook, attitude, and lifestyle committed to facing reality without illusions or violence. Its intent is to counter the distorted perception that expects true contentment to come without effort or from others.

### ***Week 13: Finding Reliable Guidance towards a Self-Healing Life***

Insight: Recognizing that the path to self-healing requires reliable guidance

Practice: Identifying and trusting reliable mentors, traditions, and communities

Objective: Participants reexamine their familiar view of guidance, its nature, risks, and benefits, in light of the greater freedom and responsibility possible for those who exercise mindfulness, alertness, and other contemplative “muscles.” Challenging extreme suspicion of guidance as regressive or as a matter of blind faith, this session explores the possibility of a middle way in which identifying and trying reliable guidance is a necessity for anyone wishing to replace familiar habits with healthy alternatives. Its intent is to counter the sense of the world as a cold and lonely place devoid of the refuge or support we need to heal and change.

### ***Week 14: Understanding the Value of Empathy***

Insight: Valuing empathy as the way to impartial experience of the world

Practice: Exercising the potential for empathy through image-based contemplation

Objective: Participants reexamine their familiar view of empathy, its nature, scope, and

potential, in light of the greater freedom and responsibility possible for those who exercise insight, quiescence, and other contemplative “muscles.” Challenging extreme suspicion of empathy as regressive or as solely a matter of duty or divine grace, this session explores the possibility of a middle way in which it figures as a powerful mental muscle that acts as the basis for a realistic sense of ourselves and others, and the ground of impartial, objective experience of life and the world. Its intent is to counter the traumatic sense of the world as a threatening place where others are hostile or indifferent competitors.

### ***Week 15: Facing the Cost of Traumatic Self-Involvement***

Insight: Recognizing self-involvement as the root cause of distress-prone life

Practice: Dismantling learned and innate self-involvement in image-based contemplation

Objective: Participants reexamine their familiar view of the self or person, its origin and nature, in light of the more accurate self-knowledge possible for those who exercise insight, quiescence, and other contemplative “muscles.” Challenging extreme views of the self or person as a name for the brain or as powerless creatures of a jealous God, this session explores the possibility of a middle way in which the self or person is recognized as a social contract that serves to regulate the relationships between human beings and to protect the freedom and responsibility each individual has for his or her action. Its intent is to counter the reactive sensitivity that mistakes pleasant, painful, or neutral contact with the world for a matter of personal favor, attack, or indifference.

### ***Week 16: Cultivating the Benefits of Care and Love***

Insight: Identifying compassion as the most effective way of being with others

Practice: Cultivating love and compassion through image-based contemplation

Objective: Participants reexamine their familiar view of love and compassion, their nature and benefits, in light of the greater freedom and responsibility possible for those who exercise insight, quiescence, and other contemplative “muscles.” Challenging extreme views of love and compassion as self-interested instincts or as solely a matter of divine grace or duty, this session explores the possibility of a middle way in which the social emotions of love and compassion are recognized and nurtured as natural muscles that can be exercised and extended to expand the scope of proactive social relations. Its intent is to counter the addictive craving for positive attention that blocks higher social emotions and locks humans into a regressive attachment to childish illusions and habits.

### ***Week 17: Claiming the Power of Responsibility***

Insight: Committing to altruism as the spirit of objectivity and social effectiveness

Practice: Cultivating a mature social self through guided contemplation

Objective: Participants reexamine their familiar view of altruism, its nature and benefits, in light of the greater freedom and responsibility possible for those who exercise insight, quiescence, and other contemplative “muscles.” Challenging extreme views of altruism as a form of genetic self-interest or as a mere duty or the sole province of saints and God, this session explores the possibility of a middle way in which altruistic concern and resolve are recognized and developed as natural muscles that can be exercised to power and direct a proactively engaged social life. Its intent is to counter the obsessive clinging that inhibits the growth of a higher social self and locks humans in a fear-based attachment to self-defeating self-centeredness.

### ***Week 18: Recognizing the Need for Mentoring***

Insight: Identifying qualified others as models for self-transformation

Practice: Transcending familiar self-constructs through imagery and affirmation.

Objective: Participants reexamine their familiar view of mentoring, its risks and benefits, in light of the greater freedom and responsibility possible for those who exercise vision, inspiration, and other contemplative “muscles.” Challenging extreme views of mentoring as a form of regressive dependency or as restricted to blind obedience to God or his representatives, this session explores the possibility of a middle way in which mentoring is recognized and developed as the natural medium of social learning and self-transcendence. Its intent is to counter a rigid mindset that blocks the human potential for lifelong development and locks humans in a self-limiting shell of automatic habits of mind and action.

### ***Week 19: Practicing the Virtue of Vision***

Insight: Recognizing visions of self and world as templates for self-transformation

Practice: Transforming habitual perception through role-modeling imagery and affirmation

Objective: Participants reexamine their familiar view of perception in light of the greater freedom and responsibility possible for those who exercise vision, inspiration, and other contemplative “muscles.” Challenging extreme views of human perception as mirroring reality or as a benighted shadow of divine perception, this session explores the possibility of a middle way in which perception is recognized and shaped as a creative process meant to guide the current action and future development of individuals and societies. Its intent is to counter the mindless reproduction of familiar patterns that blocks humanity’s full potential for transforming self and world through creative vision and the action it guides.

### ***Week 20: Harnessing the Power of Inspiration***

Insight: Using recitation and breath-control to energize self-transformation

Practice: Harnessing the energy and chemistry of arousal through restorative breathing

Objective: Participants reexamine their familiar view of mind/body states in light of the greater freedom and responsibility possible for those who exercise vision, inspiration, and other contemplative “muscles.” Challenging extreme views of mental states as determined by brain processes beyond conscious control or as reflecting positive input from others or God, this session explores the possibility of a middle way in which mind/body energy and chemistry are recognized as products of mental, verbal, and physical actions and vehicles to be consciously shaped to support the realization of personal and social aims. Its intent is to counter the experience of facts of life like illness, aging, and death as senseless, random events beyond our control and to harness our full potential for altering our neurobiology and biochemistry to best meet life’s ultimate challenges.

### Conflicts of Interest

The authors declare no conflicts of interest.

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