
Mental Balance and Well-Being

Building Bridges Between Buddhism and Western Psychology

B. Alan Wallace
Shauna L. Shapiro

*Santa Barbara Institute for Consciousness Studies
Santa Clara University*

Clinical psychology has focused primarily on the diagnosis and treatment of mental disease, and only recently has scientific attention turned to understanding and cultivating positive mental health. The Buddhist tradition, on the other hand, has focused for over 2,500 years on cultivating exceptional states of mental well-being as well as identifying and treating psychological problems. This article attempts to draw on centuries of Buddhist experiential and theoretical inquiry as well as current Western experimental research to highlight specific themes that are particularly relevant to exploring the nature of mental health. Specifically, the authors discuss the nature of mental well-being and then present an innovative model of how to attain such well-being through the cultivation of four types of mental balance: conative, attentional, cognitive, and affective.

Keywords: mental health, Buddhism, well-being, mental balance

Particularly since World War II, clinical psychology has focused primarily on the diagnosis and treatment of mental disease, and only recently has scientific attention turned to understanding and cultivating positive mental health (Seligman & Csikszentmihalyi, 2000). The Buddhist tradition, on the other hand, has concerned itself over the past 2,500 years with cultivating exceptional states of mental well-being as well as identifying and treating problems of the mind (Smith, 1991).

Toward a Dialogue

Although the records of the Buddha's discourses and later commentarial literature within the Buddhist tradition do not elaborate on the theme of "mental health" as such, they do discuss the nature and causes of mental imbalances and techniques for achieving mental well-being. This article draws on centuries of Buddhist experiential and theoretical inquiry to show how a dialogue with Western psychology can be mutually enriching and particularly relevant to current psychological interest in exploring the nature of positive mental health.

This article specifically focuses on Buddhism, because it is widely considered the most psychological of all spiritual traditions (Smith, 1991). Buddhism is fundamentally concerned with identifying the inner causes of human suffering, the possibility of freedom from suffering, and the means to realize such freedom. Unlike many religions, it does not begin with arousing faith in a supernatural being

but rather with investigating the nature of human experience (Wallace, 1999, 2003). Buddhism presents a worldview that is thoroughly integrated with a discipline of experiential inquiry into the nature of the mind and related phenomena, and it includes empirical, analytical, and religious elements (Segall, 2003). Thus, it can be relevant to philosophical and psychological theory and practice because of its intensive exploration of the mind and its psychological methods to cultivate sustained well-being.

To help open up collaborative dialogue between Buddhism and Western psychology, this article introduces a fourfold model of well-being, drawing from Buddhist teachings as well as Western psychology and research. We begin by introducing a definition of well-being, derived from core insights of the Buddha as well as current Western psychological theory and research. We then describe an innovative model of how to cultivate mental well-being, focusing on four types of mental balance: conative, attentional, cognitive, and affective. The model draws on traditional Buddhist theory as well as relevant Western psychological research to demonstrate how dialogue and empirical study can enrich both traditions.

Nature and Types of Buddhism

Although the Buddhist tradition stems from the teachings attributed to the historical Buddha, over the past 2,500 years it has become assimilated with a wide range of cultures throughout Asia, resulting in an equally wide range of sacred writings, theories, and practices. Broadly speaking, Buddhism is commonly classified in terms of Southeast Asian Theravada Buddhism, East Asian Mahayana Buddhism, and Indo-Tibetan Mahayana and Vajrayana Buddhism, each having its own unique characteristics and

B. Alan Wallace, Santa Barbara Institute for Consciousness Studies; Shauna L. Shapiro, Department of Counseling Psychology, Santa Clara University.

We thank the Mind and Life Institute, which invited the initial presentation that led to the current article; Richard Davidson, Paul Ekman, Benedict Freedman, Jonathon Haidt, Margaret Kemeny, Johanna Shapiro, and Deane Shapiro for their insightful feedback and suggestions; and those pioneering researchers who are exploring the interface between the world's contemplative traditions and modern science, revealing new ways to alleviate human suffering and shedding fresh light on the human potential for genuine well-being.

Correspondence concerning this article should be addressed to Shauna L. Shapiro, Department of Counseling Psychology, Santa Clara University, 500 El Camino Real, Santa Clara, CA 95051. E-mail: slshapiro@scu.edu



**B. Alan
Wallace**

emphases. But there is also great internal diversity within each of these large traditions, and Buddhism continues to evolve today, not only throughout Asia but worldwide (Harvey, 1990; Mitchell, 2002).

Among the many schools of Buddhism that have developed over its long history, in this article we rely primarily on the rich literature of the Theravada Buddhism of Southeast Asia and Mahayana Buddhism as they originated in India and later evolved in Tibet. All schools of Buddhism are concerned with the realization of spiritual liberation and enlightenment, but these two traditions have developed an especially rich body of theories and practices for achieving the more modest goal of mental well-being (Aronson, 2004). For this reason, the majority of the teachings we draw from in our attempt to develop a model of mental health and balance are from the Theravada and Mahayana literature. And yet, it is important to note that all schools of Buddhism share in common with Western psychology the fundamental goal of reducing suffering (Bodhi, 2005).

Well-Being and Its Facsimiles

The goal of Buddhist practice is the realization of a state of well-being that is not contingent on the presence of pleasurable stimuli, either external or internal (Wallace, 1999). According to Buddhism, this movement toward well-being is a fundamental part of being human. As the Dalai Lama commented,

I believe that the very purpose of our life is to seek happiness. Whether one believes in religion or not, whether one believes in this religion or that religion, we all are seeking something better in life. So, I think, the very motion of our life is towards happiness. (Dalai Lama & Cutler, 1998, p. 15)

A fundamental insight of Buddhism is the recognition of the fluctuating, impermanent nature of all phenomena that arise in dependence on preceding causes and contributing conditions (Ñanamoli & Bodhi, 1995). Mistakenly grasping objective things and events as true sources of happiness produces a wide range of psychological problems, at the root of which is the reification of oneself as an immutable, unitary, independent ego (Ricard, 2006). By first recognizing these ways of misapprehending oneself and the rest of the world, one can then begin to identify the actual sources of genuine well-being (Wallace, 2005b; Wallace & Hodel, 2006). The true causes of such well-being are rooted in a wholesome way of life, are nurtured through the cultivation of mental balance, and come to fruition in the experience of wisdom and compassion. In this way, the pursuits of genuine well-being, understanding, and virtue come to be thoroughly integrated.

Buddhism promotes an ideal state of well-being that results from freeing the mind of its afflictive tendencies and obscurations and from realizing one's fullest potential in terms of wisdom, compassion, and creativity (Wallace, in press). In this article, the well-being we are referring to is fundamentally different from hedonic well-being, which includes stimulus-driven pleasures of all kinds (Bodhi, 2005, pp. 199–205; Wallace, 1993, pp. 1–10). According to Buddhist teaching, people may derive enjoyment from sensual pleasures, such as attractive visual images, sounds, aromas, tastes, and tactile sensations, but as soon as they lose touch with these stimuli, the resultant pleasure fades (Tsong-kha-pa, 2002). Buddhism suggests that the same is true of the satisfaction people may experience as a result of being praised, acknowledged, respected, and loved. The acquisition of material goods, financial security, power, and fame may lead to happiness, but it too is transient. All such pleasures are contingent on stimuli, either from the environment, from interactions with other people, or from various kinds of physical and mental activity. But when those stimuli cease, the associated pleasure wanes (Ricard, 2006).

This ancient Buddhist critique of stimulus-driven pleasure has been indirectly supported by current research finding that wealth does not predict lasting happiness (Diener, Sandvik, Seidlitz, & Diener, 1993; Inglehart, 1990).¹ For example, even lottery winners gain only a temporary boost in reported subjective well-being and then return to baseline (Argyle, 1986; Brickman, Coates, & Janoff-Bulman, 1978). In fact, Myers and Diener (1995), after years of research on psychological happiness, concluded that "satisfaction is less a matter of getting what you want than wanting what you have" (p.13), a statement in accordance with the Buddhist emphasis on the importance of contentment (Tsong-kha-pa, 2002, p. 29).

Moreover, according to Buddhist theory, clinging to such stimuli as the actual source of one's happiness can

¹ These findings are nuanced, and we do not want to overstate the relationship between money and happiness (see Lucas & Dyrenforth, 2006, for a critique).



Shauna L. Shapiro

easily give rise to at least intermittent, if not chronic, anxiety as one faces the possibility, likelihood, or certainty that stimuli will not last (Tsong-kha-pa, 2000, pp. 281–284). According to one Buddhist adage, as people cling to these objects, situations, and activities as the source of happiness, there can eventually be only two outcomes: Either the objects, situations, and activities disappear, or people disappear. A common misconception is that Buddhism uniformly denies the value of stimulus-driven pleasures, as if it were morally wrong to enjoy the simple pleasures of life, let alone the joys of raising a family, creating fine works of art, or making scientific discoveries. All of these have their own merits, but a life that is concerned with such pursuits alone does not give rise to lasting well-being.

This is not a matter of choosing well-being instead of hedonic pleasures, some of which, like the joys of friendship and worthwhile accomplishments, may be very meaningful. The enjoyment of such transient experiences is not in opposition to the cultivation of positive attitudes and commitments or the cultivation of the types of mental balance that yield inner well-being. In fact, one may derive greater enjoyment from hedonic pleasures as a result of cultivating well-being. What is important is not to conflate the two and mistakenly believe that external pleasures will bring lasting happiness.

One can distinguish between well-being and its facsimiles by imagining all of the external supports for his or her present sense of happiness and security suddenly disappearing. Whatever sense of well-being that remains is authentic. All of one's happiness that has vanished is merely on loan, contingent on transient conditions that are largely out of one's control. People can ignore that fact and lead their lives with a false sense of

security, or they may wake up to the illusory nature of much of their happiness and seek to cultivate genuine well-being through the development of mental balance, which is not dependent on pleasurable sensory, aesthetic, or intellectual stimuli.

Support From Western Psychology

Well-being that transcends such transient, stimulus-driven pleasures depends on the cultivation of specific types of enduring beliefs and attitudes and on developing one's signature strengths (Haidt, 2006; Seligman, 2004). The cultivation of meaningful priorities, attitudes, perspectives, and behaviors has been highlighted by positive psychology (Seligman, 1998) and is also strongly emphasized in Buddhist practice (Shantideva, 1997; Wallace, 2001a). Both Western psychology and Buddhism claim that the happiness resulting from such internal mental training is more durable than stimulus-driven pleasures (Brickman & Campbell, 1971; Ryan & Deci, 2001).

Current psychological research on "maximizers" and "satisficers" supports this theory of well-being drawn from Buddhism and Western psychology (Schwartz et al., 2002). *Maximizers* are defined as persons who are always looking for the best, whereas *satisficers* are satisfied once the threshold of acceptability based on their intrinsic values is crossed. Research demonstrates that maximizers' attempts at finding the best paradoxically leads to increased suffering, not increased satisfaction. Of note, although maximizers may achieve better objective outcomes than satisficers, they are likely to experience these outcomes as worse (Iyengar, Wells, & Schwartz, 2006). As the maximizer attempts to create an internal state through external perfection, dissatisfaction (not pleasure) increases. This reinforces a core hypothesis of Buddhism that expectations and striving after such things as wealth, fame, approval, and power lead to discontentment, anxiety, and frustration.

Buddhism states that these misguided attempts to find happiness are due to people's confusion about the sources that lead to true well-being (Ñanamoli & Bodhi, 1995; Goldstein & Kornfield, 1987). This view is supported by current psychological research in affective forecasting. Kahneman, Diener, and Schwarz (1999) proposed that people are poor predictors of their future happiness, finding that people often inaccurately forecast the emotional impact of specific events and therefore make choices based on erroneous calculations of what will bring the greatest happiness (Kahneman et al., 1999). There is substantial evidence for an impact bias in predictions about emotional reactions to future events (for a review, see Wilson & Gilbert, 2003). These findings lend partial support to the Buddhist view that often what people think will make them happy does not lead to lasting well-being.

Current psychological research also offers preliminary confirmation of the Buddhist teaching that the level of one's happiness is not fixed but can be consciously cultivated. Until recently, psychological theory posited that the "set point" for experiencing happiness is fixed by temperament and early life experience and is difficult to shift (Kahneman et al., 1999). However, recent research in neu-

rosience is beginning to show support for the Buddha's theory. For example, Davidson and colleagues (2003) found that novice meditation practice was associated with significantly greater activity in the left prefrontal cortex, an area of the brain associated with positive emotion. This finding was further supported by a prospective randomized controlled trial examining the effects of mindfulness meditation on brain activity as well as psychological and immunological functioning (Davidson et al., 2003).²

As the above discussion illustrates, the quest for well-being is often difficult and misguided. Below we present a heuristic model that proposes that well-being arises from a mind that is balanced in four ways: conatively, attentionally, cognitively, and affectively. This fourfold model of mental balance draws from both Buddhism and Western psychology in an attempt to build a bridge between these two rich traditions. Our model of mental balance is not found in traditional Buddhist literature, which does not generally discuss mental health as a topic distinct from teachings on the path to enlightenment. Nevertheless, this novel approach to understanding and developing exceptional levels of mental balance is derived from sources in various Buddhist texts that explain how to train the mind in ways that alleviate suffering from its source (Buddhaghosa, 1979; Shantideva, 1997; Tsong-kha-pa, 2000, 2002).

Cultivating Mental Balance

One of the fundamental Buddhist premises that underlies this presentation of well-being is that mental suffering is due in large part to imbalances of the mind (Gunaratana, 1985, pp. 28–48; Tsong-kha-pa, 2000, pp. 297–313). For example, anxiety, frustration, and depression are considered to be symptoms of an unbalanced mind. On the other hand, just as a healthy, uninjured body is relatively free of pain, so is a healthy, balanced mind relatively free of psychological distress, even in the face of adversity. Although mental suffering is often catalyzed by environmental and social influences and it presumably always has neural correlates (Ryff & Singer, 1998), such suffering can often be traced to subjectively experienced mental imbalances. Buddhism suggests that many of them can be remedied through skillful, sustained mental training (Tsong-kha-pa, 2000).

The basic theory is that to the extent that the mind's habitual "ground state," prior to any sensory or conceptual stimulation, is in a state of imbalance, it is characterized by dissatisfaction (Tsong-kha-pa, 2000, pp. 290–292). On the basis of this theory, we have developed a heuristic model of four kinds of mental balance: conative, attentional, cognitive, and affective. The four components of the model were chosen because we believe they encapsulate the major processes involved in training the mind to achieve exceptional levels of health and well-being.

The model is presented in a linear fashion, beginning with conative balance. Conative balance precedes the other three in the process of cultivating mental well-being, because this factor is what allows people to set intentions, goals, and priorities. In effect, conative processes set the course for the cultivation of the other three mental bal-

ances. Attentional balance is the next mental factor discussed, because attention is a necessary skill for achieving the final two factors, cognitive and affective balance. Without the ability to sustain attention, it is difficult to closely examine people's moment-to-moment cognitive and affective processes. Cognitive and affective balance are presented subsequently, as they can most effectively be achieved on the basis of the prior cultivation of conative and attentional balance.

Although we present the model in a linear procession, we are not suggesting any kind of strict linearity among these four elements of mental balance. All components of the model are interconnected. The model represents a systemic and dynamic process of evolving toward well-being. Each factor of the model has its own distinct qualities, while it is simultaneously part of the larger whole of the system. This aspect of the model is akin to the term *holon* (Koestler, 1978), which refers to a system that is both a whole composed of parts and a part composing larger wholes. Therefore, although we describe each of the mental balances below as individual factors, it is important to note that as balance is gained in one area, it affects the other three. For example, as one gains greater affective balance, this is likely to result in greater wisdom regarding one's choice of goals (conative balance), increased ability to sustain attention (attentional balance), and clearer mindfulness of events as they arise from moment to moment (cognitive balance).

Below we describe each of the four mental balances. In an attempt to precisely operationalize them, we use a system of classification drawn from traditional Tibetan medicine, which defines physiological imbalances in terms of deficit, hyperactivity, and dysfunction. This system of classification is closely linked to Indo-Tibetan Buddhism (Dhonden, 1986, 2000). We attempt to show how each of the mental balances has its own distinct characteristics, though all four are interdependent. In addition, we cite relevant Western psychological theory and research to help support our discussion. Finally, we suggest empirical questions that arise out of our fourfold model.

Conative Balance

The term *conation* refers to the faculties of intention and volition. For example, the intention to spend more time with one's children and the intent to lose weight are both cases of conation, with intention, or a goal, implying a stronger commitment to action than desire alone. An illustration of a desire, as distinct from an intention, is the yearning to stop smoking, which is not fortified by the actual resolve to do so. Conative balance is the first of the

² Results indicated that the meditation group demonstrated significantly increased left to right prefrontal activity. Further, this shift in prefrontal activity was correlated with subjective reports of well-being as well as enhanced immune functioning. The results of these studies are not conclusive, however, as the same level of left prefrontal cortex activity was exhibited by two subjects with no meditative training. Nevertheless, these findings do support the emerging field of neuroplasticity, which states that many neural processes are malleable and can change in response to experience.

mental states discussed because of its central importance to all other mental states. If one does not develop conative balance—a reality-based range of desires and aspirations oriented toward one's own and others' happiness—then there will be little or no incentive to try to balance one's attentional, cognitive, and affective faculties. A common misconception of Buddhism is that it promotes the ideal of having no desires or goals whatsoever. But this would imply a vegetative state utterly at variance with the Buddhist ideal of genuine well-being (Asanga, 2001, p. 16; Gethin, 2001, pp. 90–91). Although Buddhism does explain how the suffering may be caused by unwholesome goals and desires, it also emphasizes the value of wholesome goals and desires, such as the intention to be a conscientious and loving parent or to contribute to a sustainable ecosphere (Tsong-kha-pa, 2004). In this context, the terms *wholesome* and *unwholesome* refer to those forms of physical, verbal, and mental behavior that are, respectively, conducive to and detrimental to one's own and others' well-being. To determine what is wholesome and unwholesome requires a careful examination of the long-term consequences of behavior, for an unwholesome act may lead to short-term gratification but long-term misery, whereas a wholesome deed may be fraught with difficulties in the short term but lead to deeply rewarding consequences as time passes.

On the basis of this teaching, in our model, conative balance entails intentions and volitions that are conducive to one's own and others' well-being. Conative imbalances, on the other hand, constitute ways in which people's desires and intentions lead them away from psychological flourishing and into psychological distress (Rinpoche, 2003; Wallace, 1993, pp. 31–43).

A conative deficit occurs when people experience an apathetic loss of motivation for happiness and its causes (Rabten, 1992, p. 86; Vasubandhu, 1991, p. 193). This is normally accompanied by a lack of imagination or a kind of stagnated complacency: People cannot imagine faring better than they are now, so in this state of despair, they do not try to do anything to achieve such well-being. Some people fall into such apathy due to disappointment, when they have failed to reach a goal or fulfill an aspiration, such as being accepted at a chosen college or landing a promising job. Conative hyperactivity is present when people fixate on obsessive goals that obscure the reality of the present (Asanga, 2001, pp. 15–18; Rabten, 1992, pp. 84–85). People are so caught up in craving and fantasies about the future—about their unfulfilled desires—that their senses are dulled as to what is happening here and now. In the process, people may also blind themselves to the needs and aspirations of others. Students, for example, may be so obsessed with achieving optimal grades that they become overwrought with anxiety and fail to prepare properly for their exams. Likewise, a man may become so intent on winning a woman's affections that his attentions to the woman of his desire become oppressive. By being so caught up in desire, the man fails to notice that he is alienating the very woman he is trying to impress.

Finally, conative dysfunction sets in when people desire things that are detrimental to their own or others' well-being and are indifferent to things that do contribute to their own and others' well-being (Gunaratana, 1985, p. 29). For example, if one becomes obsessed with the pursuit of fame and financial success, this single-minded fixation may prove detrimental to one's physical and psychological health while also damaging one's personal relations with friends, loved ones, and professional colleagues. Addiction and other forms of substance abuse, which may yield short-term pleasure and relief from pain, are other expressions of conative dysfunction.

It is crucial to recognize that individual psychological flourishing is not something that can be cultivated while ignoring the well-being of others. People do not exist independently from others, so their well-being cannot arise independently of others either. The seventh-century Indian Buddhist contemplative Shantideva (1997) commented on conative dysfunction in this way: "Those seeking to escape from suffering hasten right toward their own misery. And with the very desire for happiness, out of delusion they destroy their own well-being as if it were their enemy" (p. 21).

Conative balance does not imply that one simply changes goals, substituting one for another. There are actually scores of different Buddhist practices to cultivate right intention or right motivation, which pertain directly to conative balance (Tsong-kha-pa, 2000, 2004). These include reflection on meaningful and wholesome desires and recognizing unwholesome desires that will lead to suffering both for oneself and others. The reflection is carried further, focusing not only on the desire and goal itself but also on the cause and effect of specific desires. For example, "If I continue on this track and I try to fulfill this desire, what are the consequences for my own and others' well-being?" In such ways, the right intention implies an altruistic devotion to meaningful desires that are conducive not only to one's own well-being but to the flourishing of others as well.

General Buddhist approaches to attaining conative balance are (a) to remedy apathy by meditating on the realities of impermanence and suffering and the possibility of generating well-being by reflecting, for example, on the lives of those who have realized such fulfillment, (b) to remedy obsessive desire with the cultivation of contentment, and (c) to remedy mistaken goals with the experiential recognition of the true causes of both suffering and well-being (Wallace, 2001b, pp. 218–222). Buddhism presents a wide array of meditations designed to remedy specific forms of craving and other obsessive desires and to promote wholesome aspirations (Shantideva, 1981, pp. 142–156, 188–215). Contentment is cultivated by reflecting on the transitory, unsatisfying nature of hedonic pleasures and by identifying and developing the inner causes of genuine well-being. At the same time, by reflecting on the potential benefits of achieving exceptional states of mental balance and insight, one may experience a healthy sense of discontent regarding one's current degree of psychological and spiritual maturation, leading to an insatiable aspiration to explore the frontiers of one's inner development. The

result of such conative balance is a decrease in interest in achieving an excess of such things as sensual pleasures, material acquisitions, and social status and a growing commitment to leading a meaningful and deeply satisfying life, qualified by a growing sense of well-being, understanding, and virtue.

According to Buddhism, although the primary sources of mental suffering are internal mental afflictions such as craving, hostility, and delusion, it is common for people to mistakenly identify external objects, people, and situations as the true sources of their misery, anxiety, and frustration. *Craving*, as it is defined in Buddhism, is an attraction for an object on which one conceptually superimposes or exaggerates desirable qualities while filtering out undesirable qualities (Wallace, 1999). In cases of strong craving and afflictive attachment (including addiction), one transfers the very possibility of one's own happiness onto the object on which one's mind is bent, thereby disempowering oneself and empowering the object of one's desire (Rabten, 1992, pp. 74–75).

Support from Western psychology. Current psychological research supports the importance of having clear and unconflicting aspirations and goals that are inherent in attaining conative balance. For example, Emmons (1986) found that having goals, making progress toward goals, and having goals that did not conflict with each other were all predictors of subjective well-being and happiness. In addition, the Buddhist idea of right motivation has implicitly found its way into Western psychological theory in the stages of change model of addictive behavior developed by Prochaska, DiClemente, and Norcross (1992). Clients often move through these stages depending on their motivational level. Research has found that therapists and interventions matched to a person's conative-motivational level are highly effective (Prochaska et al., 1992). The attention to motivation in Western psychology has increased significantly over the past decade because of the work of W. Miller and Rolnick (1991) and their development of motivational interviewing, an efficacious approach geared toward enhancing clients' motivation to change.

Empirical questions. Buddhist teachings posit that conation is essential to mental well-being (Byrom, 1991). This is an interesting empirical question. The model that we have developed follows this assumption. We posit that the other three mental balances will not lead to well-being without the development of conative balance. Our model suggests that the faculty of attention in and of itself does not necessarily lead to well-being. A sniper, for instance, may develop highly concentrated, unwavering attention without such attention skills' leading to well-being. Our model supports the previous theory that the intention behind the attention is elemental (see S. L. Shapiro & Schwartz, 2000, for a review). Rigorous research examining the question of the role of conative balance in the proposed model of mental balance might ask, for example, whether the cultivation of attentional or cognitive balance results in equal well-being if conative balance is not present. For example, an individual with exceptional atten-

tional balance may be able to sustain attention for prolonged periods of time on examining trends in the stock market. But if he or she does not have conative balance, he or she may be consumed by greed and fear and will not experience subjective well-being (e.g., quality of life, sense of happiness, low stress) or objective well-being (e.g., healthy blood pressure and immune profiles).

Attentional Balance

Attentional balance, including the development of sustained, voluntary attention, is a crucial feature of mental health and optimal performance in any kind of meaningful activity. According to Buddhist teachings, it is achieved by overcoming attentional deficit, hyperactivity, and dysfunction, to which human beings at large, and not just those diagnosed with attention-deficit/hyperactivity disorder, are prone (Gunaratana, 1985, pp. 28–32). From a Buddhist perspective, an attentional deficit is characterized by the inability to focus vividly on a chosen object. Students in a classroom, for example, may have a hard time attending to their teacher's instructions because of falling into listlessness, boredom, or dullness. Attentional hyperactivity occurs when the mind is excessively aroused, resulting in compulsive distraction and agitation. To return to the example of a classroom situation, students may be inattentive to their teacher because they are caught up in their own daydreaming, restlessness, and other distractions. Attention is dysfunctional when people focus on things in afflictive ways, those that are not conducive to their own or others' well-being.

An attentional deficit corresponds closely to the Buddhist concept of laxity, and attentional hyperactivity correlates with excitation (Lamrimpa, 1995; Wallace, 1999, 2005a, 2006a). These imbalances are remedied through the cultivation of *mindfulness*, which is defined in many Buddhist texts as sustained, voluntary attention continuously focused on a familiar object, without forgetfulness or distraction (Asanga, 2001, p. 9; Buddhaghosa, 1979, p. 524; Gethin, 2001, pp. 36–44), and *meta-attention*, the ability to monitor the state of the mind, swiftly recognizing whether one's attention has succumbed to either excitation or laxity (Ñanamoli & Bodhi, 1995, p. 975). Shantideva (1997) emphasized the importance of developing attentional skills for psychological flourishing when he wrote, "Upon developing zeal in that way, one should stabilize the mind in meditative concentration, since a person whose mind is distracted lives between the fangs of mental afflictions" (p. 89).

One of the most widespread Buddhist practices for developing attentional balance is mindfulness of breathing. In such practice, one may begin by focusing the attention on the tactile sensations of the respiration wherever they arise in the entire body; one may then more narrowly focus on the sensations of the rise and fall of the abdomen with each in- and out-breath; and in the most highly focused exercise, the attention may be directed to the sensations of the passage of the breath at the apertures of the nostrils. While the attention is mindfully engaged with the respiration, one meta-cognitively monitors the meditative process,

noting as swiftly as possible the occurrence of either laxity or excitation. When laxity sets in, the primary remedy is to arouse the attention by taking a fresh interest in the object of meditation, whereas when the mind becomes agitated, the first thing to do is to relax more deeply. In this way, the attentional imbalances of laxity and excitation may be overcome (Wallace, 2006a).

Support from Western psychology. Current psychological theory corroborates the Buddha's teachings on the significance of attention. For example, several theories of self-regulation discuss the central place of attention in the maintenance and enhancement of psychological functioning (Ryan & Deci, 2001; S. L. Shapiro & Schwartz, 2000; Teasdale et al., 2000). In addition, the work of Cohen and Blum (2002) posits the central role of attention and cognitive control in guiding thought, behavior, and decision making.

The psychological theory of *flow*, developed by Csikszentmihalyi (1990), also confirms the importance of sustained attention. *Flow* is defined as the state of being completely involved in an activity for its own sake. Research based on the theoretical concept of flow demonstrates that happiness comes from deep attention and engagement in activity (Csikszentmihalyi, 1990).

One of the most intriguing aspects of Buddhist attentional training has to do with the development of the simultaneous qualities of relaxation, attentional stability, and vividness. In the course of such meditative practice, one experiences a growing sense of physical and mental ease, yet at the same time, the coherence and vividness of attention increase (Wallace, 2006a, pp. 13–22, 155–162). This physical and mental ease is akin to the “relaxation response” and has been posited by many Western psychologists as the mechanism by which meditation affects mental and physical health (Benson, 1984). However, whereas relaxation plays an important role in effecting change, the stability and vividness of attention may also be key elements. This Buddhist assertion can be tested using Western psychological methodology.

On the basis of many studies of attention in healthy individuals—including those with skills in areas such as air traffic control, music, mathematics, and chess—psychologists have generally found that attentional arousal is correlated with effort. When one is deeply relaxed, there is a low level of attentional vividness, and when attention is highly aroused, this is correlated with a high degree of effort (Critchley & Mathias, 2003).

In Buddhist attentional practice, on the contrary, one first emphasizes the cultivation of mental and physical relaxation; on that basis, attentional stability is highlighted, and finally one focuses on the development of attentional vividness. The result of such training is an anomalous state of attentional balance in which a high level of attentional arousal is maintained while remaining deeply relaxed and composed. For this reason, it is called *meditative quiescence* (*shamatha*). The mind is now free of both attentional laxity (deficit) and excitation (hyperactivity), and it can be used effectively for any task to which it is put (Wallace, 2006a, pp. 167–173).

Empirical questions. One empirical question this aspect of attentional balance poses is, Which theory is correct? Is focused attention opposed to relaxation or is relaxation a fundamental prerequisite to states of focused attention that can be maintained for long periods without exhaustion? If the latter were confirmed by research, it would have far-reaching implications for training in any activity, including in academic, scientific, aesthetic, athletic, and spiritual pursuits.

Two empirical questions that arise around attention are, What is an “optimal” level of attention? and What are the disadvantages of attentional imbalances? According to Buddhism, attention can and should be trained. Without this mental training, the human mind remains in what has been referred to as an “arrested state of development” or as James (1911/1924) stated, “Compared to what we ought to be, we are only half awake” (p. 237).

Psychological research (Simons & Chabris, 1999) is demonstrating the effects of cognitive blindness and change blindness, that is, not detecting large changes in objects and scenes, which result from the limited capacity of people's untrained attentional abilities. This research suggests that people perceive and remember only those objects and details that receive focused attention (Simons & Chabris, 1999). Simons and Chabris (1999) concluded that people are “surprisingly unaware of the details of [their] environment” and “do not detect large changes” (p. 1059) because of lack of attention. Another empirical question therefore is, Does meditative training in attention result in significantly less change blindness?

Cognitive Balance

Cognitive balance entails engaging with the world of experience without imposing conceptual assumptions or ideas on events and thereby misapprehending or distorting them. It therefore involves being calmly and clearly present with experience as it arises moment by moment. We use the term *cognitive* in the sense of knowing as opposed to purely discursive thought (Wallace, 2005a).

According to Buddhism, the distinguishing characteristic of what we are referring to as cognitive balance is that one views the world without the imbalances of cognitive hyperactivity, deficit, or dysfunction (King, 1992, pp. 82–102; Gunaratana, 1985, pp. 143–174; Lamrimpa, 2002). People with severe cognitive imbalances are radically out of touch with reality and are commonly diagnosed with some form of psychosis. Yet in the Buddhist view, healthy people too are generally prone to cognitive imbalances of all three kinds. At times, people are simply absent-minded (cognitive deficit); on other occasions, they get caught up in their assumptions and expectations, failing to distinguish between perceived realities and their fantasies (cognitive hyperactivity); and they are generally prone to misapprehending events (cognitive dysfunction) in a myriad of ways due to cognitive deficit and hyperactivity imbalances (Rabten, 1992). A commonly cited example in Buddhism is mistaking a coiled rope for a snake. Because one does not initially perceive this object clearly (cognitive deficit), one is prone to projecting one's fears or expectations on the

object (cognitive hyperactivity), resulting in a misidentification of the object (cognitive dysfunction). In similar ways, people may mistake the emotions, attitudes, and intentions of other people because of a failure of clear attention, compounded by unconscious projections of their own hopes and fears.

Overcoming such cognitive imbalances is a central theme in Buddhist practice, where one of the primary interventions is the application of discerning mindfulness to whatever arises from moment to moment. The faculty of mindfulness, as previously defined, is initially cultivated as a means to overcome attentional imbalances, and it is then applied to daily experience in order to achieve cognitive balance (Gunaratana, 1991). The first challenge in the Buddhist cultivation of cognitive balance is to learn how to attend just to what is being presented to one's senses and to develop an inner awareness of one's own mental processes. As the Buddha said, "In the seen there is only the seen; in the heard, there is only the heard; in the sensed, there is only the sensed; in the known, there is only the known" (*Udana* 8, as cited in Analayo, 2006, p. 233). The four applications of mindfulness to (a) the body, (b) feelings, (c) mental states and processes, and (d) phenomena in general constitute the most fundamental system of meditative practice in Buddhism for achieving insight by means of overcoming cognitive imbalances. In the prior development of attentional balance, one cultivates the faculty of sustained, vivid attention; then to overcome cognitive imbalances, one applies those attention skills to the careful examination of one's own and others' physical and mental presence and to all kinds of causal interactions. By means of such close attentiveness to one's interactive presence with other people and the environment at large, problems of cognitive deficit are overcome, and by carefully observing what is perceptually presented to one's senses, one learns to distinguish between the contents of perception and the conceptual superimpositions that one projects on one's immediate experience of the world (Thera, 1973).

Support from Western psychology. There is a rapidly growing body of scientific research exploring the therapeutic effects of such mindfulness³ training (Baer, 2003), including mindfulness-based stress reduction (Kabat-Zinn, 1990) and mindfulness-based cognitive therapy (Segal, Williams, & Teasdale, 2001).

Training in mindfulness-based interventions has demonstrated significant positive psychological and physiological outcomes in clinical and nonclinical populations (Baer, 2003; Kabat-Zinn, 1993; S. L. Shapiro, Schwartz, & Bonner, 1998). For example, research in mindfulness-based interventions has found decreased depressive relapse (Teasdale et al., 2000), decreased anxiety (J. Miller, Fletcher, & Kabat-Zinn, 1995), enhanced immunological and physiological functioning in cancer patients (Carlson, Speca, Patel, & Goodey, 2004), increased sleep quality (S. L. Shapiro, Bootzin, Lopez, Figueredo, & Schwartz, 2003), and more rapid clearing of psoriasis (Kabat-Zinn et al., 1998).

In addition, recent research has found positive associations between measures of mindfulness and psycholog-

ical and physical health outcomes (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Brown & Ryan, 2003). For example, the Mindful Attention and Awareness Scale was inversely related to depression, anger, and anxiety and positively correlated with optimism, positive affect, and self-esteem in both adult and college student samples (Brown & Ryan, 2003). Further, the Mindful Attention and Awareness Scale was inversely correlated with medical symptoms and number of visits to medical professionals. Two other measures of mindfulness, the Kentucky Inventory of Mindfulness Skills (Baer, Smith, & Allen, 2004) and the recently developed Five Factor Mindfulness Questionnaire (Baer et al., 2006), have also been associated with psychological health.

Further, mindfulness has been integrated into numerous innovative psychological interventions. For example, mindfulness is a component of dialectical behavior therapy (Linehan, 1993), control therapy (D. H. Shapiro, Astin, & Schwartz, 1996), and acceptance and commitment therapy (Hayes, 2002), and it is also being developed for use with addictive behaviors (Marlatt, 2002), sleep disorders (Ong, Shapiro, & Manber, 2006), and disordered eating (Kristeller, Baer, & Quillian-Wolever, 2006).

Despite the important findings and the innovative ways mindfulness is being introduced into psychological intervention, it is important to note some methodological limitations of the past literature on mindfulness-based intervention. There are three crucial components that have not been adequately addressed in the literature: (a) long-term assessment, (b) testing against randomized comparison groups, and (c) teasing out explanatory mechanisms. Future research should use well-controlled designs comparing mindfulness-based intervention with comparison groups and should assess long-term implications. And yet, preliminary evidence, including a number of randomized controlled trials (Carson, Carson, Gil, & Baucom, 2004; Teasdale, Segal, & Williams, 1995; S. L. Shapiro et al., 1998), is promising.

Empirical questions. One hypothesis regarding why mindfulness-based interventions contribute to greater mental health is that they cultivate cognitive balance by teaching participants to change their relationship to

³ The contemporary Vipassana tradition of Buddhist meditation generally equates mindfulness with "bare attention" (Gunaratana, 1991), and recent scientific studies of mindfulness practice have adopted that approach (Bishop et al., 2004). This definition, however, does not reflect the meaning of mindfulness (Pali: *sati*; Sanskrit: *smṛti*) as expressed in many authoritative Pali and Sanskrit Buddhist sources. As the Buddhist scholar R. M. L. Gethin (2001, pp. 36–44) pointed out, the primary meaning of the Pali term *sati* is recollection, and many traditional Theravada and Mahayana sources emphasize its qualities of taking hold of the object of attention without forgetfulness (Asanga, 2001, p. 9; Buddhaghosa, 1979, p. 524; Gethin, 2001, pp. 36, 40; Vasubandhu, 1991, p. 190). Thus, there appears to be a discrepancy between the current usage of this Buddhist term and its more traditional usage, for which there is general conformity between the Theravada and Mahayana Buddhism. This is not to detract from the widespread meaning of mindfulness today, but it is important to recognize how it diverges from the more traditional Buddhist meaning of mindfulness and its implementation in practice (see Wallace, Bays, Kabat-Zinn, & Goldstein, 2006).

thought. This is a supposition at odds with current cognitive theories (Beck, 1976; Ellis, 1962). Although both mindfulness and cognitive therapy underscore awareness and self-monitoring in the present moment, their fundamental approach to thoughts is different. In mindfulness practice, the goal is to change one's relationship to thoughts instead of changing the content of thoughts themselves, whereas cognitive therapy emphasizes the latter (Teasdale et al., 1995). The meditator, therefore, develops a metacognitive state of detached awareness of thoughts, prior to engaging in any evaluation or intent to change their content. It would be interesting for future research to examine how each approach can be used effectively and for whom.

Affective Balance

According to our model, affective balance is a natural outcome of conative, attentional, and cognitive balance, but affective imbalances also impair those other facets of mental health (Goleman, 1997, 2003). As we define the term, *affective balance* entails a freedom from excessive emotional vacillation, emotional apathy, and inappropriate emotions. So defined, the cultivation of affective balance is virtually equivalent to the development of emotional regulation skills. An affective deficit disorder has the symptoms of emotional deadness within and a sense of cold indifference toward others (Wallace, 2005b, pp. 151–152). Affective hyperactivity is characterized by excessive elation and depression, hope and fear, adulation and contempt, and infatuation and aversion. Affective dysfunction occurs when people's emotional responses are inappropriate to the circumstances at hand, for example, taking delight in someone else's misfortune or being disgruntled at others' success.

Psychologists and contemplatives the world over have devised a wide array of interventions to heal such affective imbalances, some of them applicable to people in general, others imbedded in specific religious worldviews. Buddhism treats affective imbalances with many specific methods for countering such mental afflictions as craving, hostility, delusion, arrogance, and envy (Khyentse, 1993; Shantideva, 1997; Thondup, 2000, pp. 110–122; Wallace, 2001a).

In addition, Buddhism presents a system of meditative practices designed to counter affective imbalance by cultivating the qualities of (a) loving-kindness, (b) compassion, (c) empathetic joy, and (d) equanimity (Aronson, 1980; Salzberg, 2002). These are defined, respectively, as (a) the heartfelt yearning that oneself and others might experience well-being and its causes, (b) the heartfelt yearning that oneself and others might be free of suffering and its causes, (c) delight in one's own and others' joys and virtues, and (d) an impartial sense of caring for others' well-being, regardless of one's own self-centered likes and dislikes (Wallace, 2004). In one method for cultivating loving-kindness, for example, one begins by yearning for one's own happiness and its causes, then gradually extends this aspiration to dear friends and loved ones, strangers, and finally even enemies (Salzberg, 2002). The ideal is to

cultivate loving-kindness, compassion, empathetic joy, and equanimity for all beings impartially (Davidson & Harrington, 2002).

Support from Western psychology. The cultivation of affective balance and the qualities of loving-kindness, compassion, empathetic joy, and equanimity that promote this balance need to be subjected to empirical research to determine their health-promoting effects. This pioneering research has begun. Carson and colleagues (2004) recently conducted a randomized controlled study of chronic pain patients and found that loving-kindness meditation significantly decreased pain as well as decreased psychological distress. Further, greater amounts of daily loving-kindness meditation practice were associated with decreased back pain and anger.

Another study examining empathy, which is central to empathetic joy and compassion, suggests that this quality can be developed through systematic meditation practice, as the Buddha taught. A randomized controlled trial examined the effects of a seven-week mindfulness meditation on levels of empathy in medical students. Empathy was measured by a reliable and valid self-report measure (alpha coefficient of .89), the Empathy Construct Rating Scale (La Monica, 1981). Results indicated significantly increased empathy and decreased anxiety and depression in the meditation group compared with controls (S. L. Shapiro et al., 1998).

In addition to the central teachings on loving-kindness, compassion, empathetic joy, and equanimity in cultivating affective balance, Buddhist practice also focuses on the emotional quality of gratitude (Rinchen, 1997, pp. 62–67). Psychological research has confirmed the importance of this quality for psychological and physiological well-being. For example, in a randomized trial, adults who kept a daily journal and listed all of the things for which they were grateful reported significantly increased feelings of happiness and increased health-promoting behaviors compared with controls (Emmons & McCullough, 2003).

Empirical questions. All of the noted studies focused on self-report measures, which are inherently limiting. Future research could contribute greatly by extending this research with the examination of behavioral and neurological changes. Further exploration is needed to determine for which populations and disorders affective training is most effective. Is training in affective balance more effective than training in cognitive balance for specific disorders? For example, would loving-kindness meditation be a more effective intervention than mindfulness training for depression, or might it be optimal to combine those types of practice?

A Summary of Well-Being and Mental Balance

Well-being, as presented in this article, is not simply stimulus-driven pleasure, emerging occasionally on the hedonic treadmill of life. Rather, it is a way of flourishing that underlies and suffuses all emotional states, one that embraces all of the vicissitudes of life. In short, it is a way of

engaging with life based on a wholesome way of life, mental balance, and a sound understanding of reality.

The Buddhist assumption behind the pursuit of well-being is that one's habitual state is afflicted because of mental imbalances but that one's deeper nature underlying those mental imbalances is healthy and flourishing (Ruegg, 1989; Waldron, 2003; Wallace, 2006b, Wallace & Hodel, 2006). Whereas Western psychology commonly assumes that ordinary people are psychologically well and that they suffer mentally because they are susceptible to disease and dysfunction, Buddhism declares that ordinary people are prone, to varying extents, to all four of the mental imbalances described in this article and that they suffer because of them (Tsong-kha-pa, 2000). Although certain kinds of mental imbalances are inborn and vary from one individual to the next, they can be either increased or diminished as a result of child rearing, education, and other societal influences (Tsong-kha-pa, 2000).

According to Buddhism, people's minds are not intrinsically unbalanced, only habitually so, and with continued skillful effort, these imbalances may be remedied, resulting in a state of well-being that is not contingent on agreeable sensory, behavioral, intellectual, or aesthetic stimuli (Dhamma, 1997). This is a point on which psychology and Buddhism may converge and collaborate for the benefit of everyone. Our fourfold model of well-being is an attempt to facilitate such a collaboration. Below we highlight critical questions, the exploration of which will continue the mutual enrichment of Buddhism and Western psychology.

Future Directions

There are numerous promising avenues for future research in developing a partnership between modern science and Buddhism (S. L. Shapiro & Walsh, 2003; Walsh & Shapiro, 2006). Our development of the fourfold model of well-being is one attempt. However, for research to advance, precise working definitions of hypotheses and constructs must be established. Further, reliable and valid methods of measurement need to be developed.

Specifically related to this fourfold model, the next steps are to define, operationalize, and develop psychometrically sound assessment measures for well-being and the four types of mental balance. This work has already begun with the development of a psychological well-being scale across multiple dimensions of well-being (Ryff & Singer, 1998). However, additional measures taking into consideration the specific insights offered from the Buddhist perspective in terms of the four aspects of mental balance could enrich the scientific study of well-being. For example, there is a need for assessment measures that explicitly assess well-being that is not dependent on external circumstances (e.g., "Imagine all of the external supports for your present sense of happiness and security suddenly disappearing. What sense of well-being remains?").

These assessment measures could then be included in clinical trials of meditation practice to determine whether cultivation of all four mental balances does indeed lead to greater well-being, which is our hypothesis. However, it

would also be interesting to examine the effects of developing any one of the mental balances but not the others.

Western psychology offers the rigor of scientific technology and empirical study to the wealth of techniques and systemic practices that Buddhism has developed. It has the ability to measure the behavioral and neuropsychological correlates of specific Buddhist methods. Such research could confirm, challenge, refine, and expand on the model of mental balance proposed in this article.

Conclusion

The possibilities for mutual enrichment between Buddhist teachings and Western psychology are numerous. The intention of this article is to present an innovative model in an attempt to bridge the ancient Buddhist system of mental development and contemporary scientific approaches to mental health and well-being. Specifically, we introduce a theory of well-being and the means of achieving it through the systematic cultivation of four types of mental balance: conative, attentional, cognitive, and affective. Our intention is for this article to catalyze rigorous innovative research into the potential mutual enrichment of Buddhism and current psychological theory, research, and practice. We believe Buddhist insights can continue to be developed, enhanced, and adapted by Western psychological theory, expanding the horizons of both disciplines for the benefit of all.

REFERENCES

- Analayo. (2006). Mindfulness in the Pali Nikayas. In D. K. Nauriyal, M. S. Drummond, & Y. B. Lal (Eds.), *Buddhist thought and applied psychological research: Transcending the boundaries* (pp. 229–249). London: Routledge.
- Argyle, M. (1986). *The psychology of happiness*. London: Methuen.
- Aronson, H. B. (1980). *Love and sympathy in Theravada Buddhism*. Delhi, India: Motilal Banarsidass.
- Aronson, H. B. (2004). *Buddhist practice on Western ground: Reconciling Eastern ideals and Western psychology*. Boston: Shambhala.
- Asanga. (2001). *Abhidharmasamuccaya: The compendium of the higher teaching* (W. Rahula & S. Boin-Webb, Trans.). Fremont, CA: Asian Humanities Press.
- Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice, 10*, 125–143.
- Baer, R. A., Smith, G. T., & Allen, K. B. (2004). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment, 11*, 191–206.
- Baer, R. A., Smith, T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment, 13*, 27–45.
- Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New York: International Universities Press.
- Benson, H. (1984). *The relaxation response*. New York: Avon.
- Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., et al. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*, 230–241.
- Bodhi, B. (Ed.). (2005). *In the Buddha's words: An anthology of discourses from the Pali canon*. Boston: Wisdom.
- Brickman, P., & Campbell, D. T. (1971). Hedonic relativism and planning the good society. In M. H. Appley (Ed.), *Adaptation level theory: A symposium* (pp. 287–302). New York: Academic Press.
- Brickman, P., Coates, D., & Janoff-Bulman, R. (1978). Lottery winners and accident victims: Is happiness relative? *Journal of Personality and Social Psychology, 36*, 917–927.

- Brown, K., & Ryan, R. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*, 822–848.
- Buddhaghosa. (1979). *The path of purification* (B. Ñanamoli, Trans.). Kandy, Sri Lanka: Buddhist Publication Society.
- Byrom, T. (1991). *Dhammapada*. London: Shambhala.
- Carlson, L. E., Speca, M., Patel, K. D., & Goodey, E. (2004). Mindfulness-based stress reduction in relation to quality of life, mood, symptoms of stress and levels of cortisol, dehydroepiandrosterone sulfate (DHEAS) and melatonin in breast and prostate cancer outpatients. *Psychoneuroendocrinology, 29*, 448–474.
- Carson, J. W., Carson, K. M., Gil, K. M., & Baucom, D. H. (2004). Mindfulness-based relationship enhancement. *Behavior Therapy, 35*, 471–494.
- Cohen, J. D., & Blum, K. I. (2002). Overview: Reward and decision. Introduction to special issue. *Neuron, 36*, 193–198.
- Critchley, H. D., & Mathias, C. J. (2003). Blood pressure, attention and cognition: Drivers and air traffic controllers. *Clinical Autonomic Research, 13*, 399–401.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row.
- Dalai Lama, & Cutler, H. C. (1998). *The art of happiness: A handbook for living*. New York: Riverhead Books.
- Davidson, R. J., & Harrington, A. (Eds.). (2002). *Visions of compassion: Western scientists and Tibetan Buddhists examine human nature*. New York: Oxford University Press.
- Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F., et al. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine, 65*, 564–570.
- Dhamma, R. (1997). *The first discourse of the Buddha: Turning the wheel of Dharma*. Boston: Wisdom.
- Dhonden, Y. (1986). *Health through balance: An introduction to Tibetan medicine* (P. J. Hopkins, Trans.). Ithaca, NY: Snow Lion.
- Dhonden, Y. (2000). *Healing from the source: The science and lore of Tibetan medicine* (B. A. Wallace, Trans.). Ithaca, NY: Snow Lion.
- Diener, E., Sandvik, E., Seidlitz, L., & Diener, M. (1993). The relationship between income and subjective well-being: Relative or absolute? *Social Indicators Research, 28*, 195–223.
- Ellis, A. (1962). *Reason and emotion in psychotherapy*. New York: Stuart.
- Emmons, R. A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology, 51*, 1058–1068.
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: Experimental studies of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology, 84*, 377–389.
- Gethin, R. M. L. (2001). *The Buddhist path to awakening*. Oxford, England: Oneworld.
- Goldstein, J., & Kornfield, J. (1987). *Seeking the heart of wisdom: The path of insight meditation*. Boston: Shambhala.
- Goleman, D. (1997). *Healing emotions: Conversations with the Dalai Lama on mindfulness, emotions, and health*. Boston: Shambhala.
- Goleman, D. (2003). *Destructive emotions: How can we overcome them? A scientific dialogue with the Dalai Lama*. New York: Bantam Dell.
- Gunaratana, H. (1985). *The path of serenity and insight: An explanation of the Buddhist jhanas*. Columbia, MO: South Asia Books.
- Gunaratana, H. (1991). *Mindfulness in plain English*. Boston: Wisdom.
- Haidt, J. (2006). *The happiness hypothesis: Finding modern truth in ancient wisdom*. New York: Basic Books.
- Harvey, B. P. (1990). *An introduction to Buddhism: Teachings, history, and practices*. Cambridge, England: Cambridge University Press.
- Hayes, S. (2002). Buddhism and acceptance and commitment therapy. *Cognitive and Behavior Practice, 9*, 58–66.
- Inglehart, R. (1990). *Culture shift in advanced industrial society*. Princeton, NJ: Princeton University Press.
- Iyengar, S., Wells, R., & Schwartz, B. (2006). Doing better but feeling worse: Looking for the “best” job undermines satisfaction. *Psychological Science, 17*, 143–150.
- James, W. (1924). *Memories and studies*. New York: Longmans, Green & Co. (Original work published 1911).
- Kabat-Zinn, J. (1990). *Full catastrophe living*. New York: Bantam Doubleday Dell.
- Kabat-Zinn, J. (1993). Mindfulness meditation: Health benefits of an ancient Buddhist practice. In D. Goleman & J. Gurin (Eds.), *Mind, body medicine: How to use your mind for better health* (pp. 259–275). Yonkers, NY: Consumer Reports Books.
- Kabat-Zinn, J., Wheeler, E., Light, T., Skillings, A., Scharf, M. J., Cropley, T. G., et al. (1998). Influence of mindfulness meditation-based stress reduction intervention on rates of skin clearing in patients with moderate to severe psoriasis undergoing phototherapy (UVB) and photochemotherapy (PUVA). *Psychosomatic Medicine, 60*, 625–632.
- Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). *Well-being: The foundations of hedonic psychology*. New York: Russell Sage Foundation.
- Khyentse, D. (1993). *Enlightened courage: An explanation of Atisha's seven point mind training*. Ithaca, NY: Snow Lion.
- King, W. L. (1992). *Theravada meditation: The Buddhist transformation of yoga*. Delhi, India: Motilal Banarsidass.
- Koestler, A. (1978). *Janus: A summing up*. London: Hutchinson.
- Kristeller, J., Baer, R., & Quillian-Wolever, R. (2006). Mindfulness-based approach to eating disorders. In R. Baer (Ed.), *Mindfulness and acceptance-based interventions: Conceptualization, application, and empirical support* (pp. 2–24). San Diego, CA: Elsevier.
- La Monica, E. (1981). Construct validity of an empathy instrument. *Research Nursing and Health, 4*, 389–400.
- Lamrimpa, G. (1995). *Calming the mind: Tibetan Buddhist teachings on the cultivation of meditative quiescence* (B. A. Wallace, Trans.). Ithaca, NY: Snow Lion.
- Lamrimpa, G. (2002). *Realizing emptiness: Madhyamaka insight meditation* (B. A. Wallace, Trans.). Ithaca, NY: Snow Lion.
- Linehan, M. (1993). *Cognitive behavioral treatment of borderline personality disorder*. New York: Guilford Press.
- Lucas, R. E., & Dyrenforth, P. S. (2006). Does the existence of social relationships matter for subjective well-being? In K. D. Vohs & E. J. Finkel (Eds.), *Self and relationships: Connecting intrapersonal and interpersonal processes* (pp. 254–273). New York: Guilford Press.
- Marlatt, A. (2002). Buddhist philosophy and the treatment of addictive behavior. *Cognitive and Behavior Practice, 9*, 44–50.
- Miller, J., Fletcher, K., & Kabat-Zinn, J. (1995). Three-year follow-up and clinical implications of a mindfulness-based intervention in the treatment of anxiety disorders. *General Hospital Psychiatry, 17*, 192–200.
- Miller, W., & Rolnick, S. (1991). *Motivational interviewing: Preparing people to change*. New York: Guilford Press.
- Mitchell, D. W. (2002). *Buddhism: Introducing the Buddhist experience*. New York: Oxford University Press.
- Myers, D., & Diener, E. (1995). Who is happy? *Psychological Science, 6*, 10–19.
- Ñanamoli, B., & Bodhi, B. (Trans.). (1995). *The middle length discourses of the Buddha: A new translation of the Majjhima Nikāya*. Boston: Wisdom.
- Ong, J., Shapiro, S. L., & Manber, R. (2006). *Combining mindfulness meditation with cognitive-behavior therapy for insomnia: A treatment-development study*. Unpublished manuscript.
- Prochaska, J., DiClemente, C., & Norcross, J. (1992). In search of how people change: Applications to addictive behaviors. *American Psychologist, 47*, 1102–1114.
- Rabten, G. (1992). *The mind and its functions* (S. Batchelor, Trans.; 2nd ed.). Mont Pèlerin, Switzerland: Editions Rabten Choeling.
- Ricard, M. (2006). *Happiness: A guide to developing life's most important skill*. New York: Little Brown.
- Rinchen, G. S. (1997). *Atisha's lamp for the path to enlightenment*. Ithaca, NY: Snow Lion.
- Rinpoche, C. T. (2003). *Parting from the four attachments*. Ithaca, NY: Snow Lion.
- Ruegg, D. S. (1989). *Buddha-nature, mind and the problem of gradualism in a comparative perspective: On the transmission and reception of Buddhism in India and Tibet*. London: School of Oriental and African Studies.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*, 141–166.
- Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry, 9*, 1–28.

- Salzberg, S. (2002). *Lovingkindness: The revolutionary art of happiness*. Boston: Shambhala.
- Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K., & Lehman, D. R. (2002). Maximizing versus satisficing: Happiness is a matter of choice. *Journal of Personality and Social Psychology, 83*, 1178–1197.
- Segal, Z., Williams, M., & Teasdale, J. (2001). *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. New York: Guilford Press.
- Segal, S. R. (Ed.). (2003). *Encountering Buddhism: Western psychology and Buddhist teachings*. Albany: State University of New York Press.
- Seligman, M. (1998). *Learned optimism*. New York: Pocket Books.
- Seligman, M. (2004). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. New York: Free Press.
- Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*, 5–14.
- Shantideva. (1981). *Shikshasamuccaya* (C. Bendall & W. H. D. Rouse, Trans.). Delhi, India: Motilal Banarsidass.
- Shantideva. (1997). *A guide to the bodhisattva way of life* (V. A. Wallace & B. A. Wallace, Trans.). Ithaca, NY: Snow Lion.
- Shapiro, D. H., Astin, J., & Schwartz, C. E. (1996). Controlling ourselves, controlling our world. *American Psychologist, 51*, 1213–1230.
- Shapiro, S. L., Bootzin, R., Lopez, A. M., Figueredo, A. J., & Schwartz, G. (2003). The efficacy of mindfulness-based stress reduction in the treatment of sleep disturbance in women with breast cancer: An exploratory study. *Journal of Psychosomatic Research, 54*, 85–91.
- Shapiro, S. L., & Schwartz, G. E. (2000). The role of intention in self-regulation: Toward intentional systemic mindfulness. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 253–273). San Diego, CA: Academic Press.
- Shapiro, S. L., Schwartz, G. E., & Bonner, G. (1998). Effects of mindfulness-based stress reduction on medical and premedical students. *Journal of Behavioral Medicine, 21*, 581–599.
- Shapiro, S. L., & Walsh, R. (2003). An analysis of recent meditation research and suggestions for future directions. *Journal of Humanistic Psychology, 31*(2–3), 86–114.
- Simons, D., & Chabris, C. (1999). Gorillas in our midst: Sustained inattention blindness for dynamic events. *Perception, 28*, 1059–1074.
- Smith, H. (1991). *The world's religions*. San Francisco: Harper.
- Teasdale, J. D., Segal, Z. V., & Williams, M. (1995). How does cognitive therapy prevent relapse and why should attentional control (mindfulness) training help? *Behaviour Research and Therapy, 33*, 25–39.
- Teasdale, J. D., Segal, Z. V., Williams, J. M., Ridgeway, V. A., Soulsby, J. M., & Lau, M. A. (2000). Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology, 68*, 615–623.
- Thera, N. (1973). *The heart of Buddhist meditation: A handbook of mental training based on the Buddha's way of mindfulness*. New York: Weiser.
- Thondup, T. (2000). *Boundless healing: Meditation exercises to enlighten the mind and heal the body*. Boston: Shambhala.
- Tsong-kha-pa. (2000). *The great treatise on the stages of the path to enlightenment* (Vol. 1). Ithaca, NY: Snow Lion.
- Tsong-kha-pa. (2002). *The great treatise on the stages of the path to enlightenment*. (Vol. 3). Ithaca, NY: Snow Lion.
- Tsong-kha-pa. (2004). *The great treatise on the stages of the path to enlightenment*. (Vol. 2). Ithaca, NY: Snow Lion.
- Vasubandhu. (1991). *Abhidharmakosha* (L. Vallée Poussin & L. M. Pruden, Trans.). Berkeley, CA: Asian Humanities Press.
- Waldron, W. S. (2003). *The Buddhist unconscious: The alaya-vijñāna in the context of Indian Buddhist thought*. New York: RoutledgeCurzon.
- Wallace, B. A. (1993). *Tibetan Buddhism from the ground up*. Boston: Wisdom.
- Wallace, B. A. (1999). The Buddhist tradition of *Samatha*: Methods for refining and examining consciousness. *Journal of Consciousness Studies, 6*(2–3), 175–187.
- Wallace, B. A. (2001a). *Buddhism with an attitude: The Tibetan seven-point mind-training*. Ithaca, NY: Snow Lion.
- Wallace, B. A. (2001b). Intersubjectivity in Indo-Tibetan Buddhism. *Journal of Consciousness Studies, 8*(5–7), 209–230.
- Wallace, B. A. (2003). Introduction: Buddhism and science—Breaking down the barriers. In B. A. Wallace (Ed.), *Buddhism and science: Breaking new ground* (pp. 1–30). New York: Columbia University Press.
- Wallace, B. A. (2004). *The four immeasurables: Cultivating a boundless heart* (Rev. ed.). Ithaca, NY: Snow Lion.
- Wallace, B. A. (2005a). *Balancing the mind: A Tibetan Buddhist approach to refining attention*. Ithaca, NY: Snow Lion.
- Wallace, B. A. (2005b). *Genuine happiness: Meditation as the path to fulfillment*. Hoboken, NJ: Wiley.
- Wallace, B. A. (2006a). *The attention revolution: Unlocking the power of the focused mind*. Boston: Wisdom.
- Wallace, B. A. (2006b). Vacuum states of consciousness: A Tibetan Buddhist view. In D. K. Nauriyal, M. S. Drummond, & Y. B. Lal (Eds.), *Buddhist thought and applied psychological research: Transcending the boundaries* (pp. 112–121). London: Routledge.
- Wallace, B. A. (in press). Buddhism and science. In Philip Clayton (Ed.), *The Oxford handbook of religion and science*. New York: Oxford University Press.
- Wallace, B. A., Bays, J. C., Kabat-Zinn, J., & Goldstein, J. (2006). Mindfulness: The heart of Buddhist meditation? A conversation with Jan Chozen Bays, Joseph Goldstein, Jon Kabat-Zinn, and Alan Wallace. *Inquiring Mind: A Semiannual Journal of the Vipassana Community, 22*(2), 4–7, 28–29.
- Wallace, B. A., & Hodel, B. (2006). *Contemplative science: Where Buddhism and neuroscience converge*. New York: Columbia University Press.
- Walsh, R., & Shapiro, S. L. (2006). The meeting of meditative disciplines and Western psychology: A mutually enriching dialogue. *American Psychologist, 61*, 227–239.
- Wilson, T., & Gilbert, D. (2003). Affective forecasting. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 35, pp. 345–411). San Diego, CA: Academic Press.