

**An Education of Heart and Mind:
Practical and Theoretical Issues in Teaching Cognitive-Based
Compassion Training to Children**

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ABSTRACT

Despite rapidly rising interest in meditation and contemplative practices, the majority of scientific research thus far has focused on mindfulness-based practices within a standard biomedical framework, neglecting more analytical forms of contemplative practice and also neglecting the wider potential for benefits that contemplative practices may have beyond a biomedical framework. Nevertheless, analytically oriented practices may hold great potential both for health-related interventions and for the development of curricula for educational settings, particularly as regards emotion regulation, emotional intelligence, conflict resolution, and the promotion of prosocial behavior. This article illustrates differences between more analytically oriented forms of meditation and less analytically oriented forms by presenting the example of cognitive-based compassion training (CBCT), a secularized meditation practice adapted from the Tibetan Buddhist tradition of *lojong* (mind training), and CBCT's use in educational settings for children and in foster care programs for youth in Atlanta, Georgia.

Introduction'

“Look at this sweater. I love it. It’s comfortable, it keeps me warm, and my dad gave it to me, so when I wear it, I think of him. But it didn’t come from nowhere. Where did it come from? What else do I need to have this sweater? What does it *depend on*?”

We were sitting in a classroom of the Paideia School in Atlanta, Georgia, in front of a group of twenty or so children, ages six and seven. Our aim was to test out whether we could teach them cognitive-based compassion training (CBCT), a secularized form of compassion meditation derived from the Tibetan Buddhist tradition of *lojong*, or “mind training.” The protocol, developed for Emory University undergraduates and adults, is an involved process that moves through various topics leading to the development of an engaged compassion that encompasses all people without distinction. We had spent the first several weeks just trying to teach them to sit still and attend to their breath and body sensations; we then turned to the relationship between how people feel and how they behave. This week the theme was unusually heady, one that even adults could find hard to grasp: interdependence.

“You need you!” shouted one of the children.

I paused, slightly disconcerted. It wasn’t an answer I had been expecting. “Yes, that’s true. I need me. What else do I need for this sweater?”

“You need your dad,” said another.

“Yes, certainly. If I didn’t have my dad, I wouldn’t have this sweater. So, did my dad make this sweater? Do I just need my dad? Dads make sweaters?”

As expected, they found that idea ridiculous. “No, he bought it!” said someone.

“So what did he need so that he could buy it?”

“A store,” “money,” came the replies.

“And the store? Do they make the sweaters? Where do the sweaters come from? Are there magical trees that you can just pluck sweaters out from?”

They quickly caught on to the game. Of course sweaters don’t come from trees—you need wool (where does that come from? Sheep!); you need shears (amazing that six-year-old children know about shears!); you need farms, farmers, trucks, roads (and who makes the roads and the trucks, and what are they made out of?); and all these people need parents, and their parents’ parents, and houses, and food (and the people who make the food, and their parents, and their houses . . .); and the list goes on and on. They were taking no time to catch on to the idea that even a simple item like a sweater was part of an interdependent web that stretched out to encompass a vast network of relationships.

“And where does it end?” I asked them at last. Here was the punch line, but it didn’t even take them a full second to answer.

“It doesn’t!” they shouted joyfully. “You need the whole world!”

“That’s right,” I said. “You need the whole world.”

Then, one of them looked up at us with a quizzical expression. “Even kids?”

That was something I hadn’t thought of before. But, of course, it was obvious once you thought about it. Once again, the children were displaying insights that would have been profound even coming out of the mouths of adults. They had managed to take an abstract concept that we had struggled to find a way of teaching to them, and they had brought it home, all the way to themselves. The children were silent awaiting a response.

I nodded. “Yes, even kids.”²

* * *

In recent years, interest in contemplative practices has increased dramatically. Mounting evidence from research studies suggests that various forms of meditation have demonstrable effects on physiological and psychological function and well-being.³ A large part of this recent research has focused on “mindfulness-based” practices and their ability to alleviate stress in adult clinical populations. Significantly less attention has been devoted to children and youth populations, to practices other than mindfulness, and to the broader salutary effects that contemplative practices may have beyond a standard biomedical framework, such as the promotion of positive mental health and resilience, or the alleviation of dysphoria and existential suffering.⁴

Against this backdrop, we developed a curriculum for elementary school children and adolescent youth that employs a secular and analytically oriented style of meditation that can not only teach children the practices of mindfulness and attention but also facilitate their emotional intelligence and moral-emotional development through the practices of self-compassion, equanimity, empathy, and engaged compassion for others. The aim of the program was to see if empathy, pro-social attitudes and behaviors such as compassion, and a reduction in negative stereotype and bias could be effectively taught in an experiential way through a contemplative pedagogy to children in these age groups in developmentally appropriate ways.⁵ Considering that positive emotions and social connectivity are being tied increasingly to health outcomes in later life, as we note later in this article, the ability to inculcate or enhance such factors early in life would have significant implications for education and public health.

This article presents our work with children for the first time and investigates a number of the theoretical questions raised by it that are pertinent to the study of contemplative practices and that are relevant to a number of fields, including religious studies, anthropology, comparative religious ethics, and practical theology. We first outline, for purposes of comparison, the main mindfulness-based practices currently being employed and studied in meditation research. We then present cognitive-based compassion training (CBCT), an analytically oriented meditation protocol developed for adults and undergraduate students, and explain its provenance and special features. By “analytical meditation” (Tib. *dpyad sgom*) we mean a style of meditation that actively incorporates intellectual analysis into the meditation session to gain a deeper understanding of, or reorient

one's perspective on, a particular topic.⁶ We argue that although CBCT incorporates the elements of mindfulness meditation and lovingkindness (*metta*) meditation, which are increasingly being taught in educational settings, it represents a distinctive style of contemplative practice that has unique features.⁷ As a style of meditation that relies heavily on analysis and cognitive reappraisal, we argue that it may be of particular interest to educators and that it deserves further study and exploration. We then explain how we adapted CBCT to younger populations such as the children at the Paideia School and children in Atlanta's foster care system.

Less analytically oriented contemplative practices tend also to be less explicitly tied to normative questions of meaning and ethical discernment. Analytical practices, however, explicitly aim to transform an individual's subjectivity for greater individual and social well-being by reorienting perspectives and encouraging the active cultivation of positive traits such as empathy, impartiality, and compassion on the basis of this reorientation. They therefore raise very serious and fundamental questions about the secularization and scientific study of contemplative practices—questions that have been too often passed over in the scientific study of contemplative practices, which has thus far concentrated on less analytically oriented techniques. We therefore present our own understanding of how the study of analytical contemplative practices requires, and can help to further, a paradigm shift in our understanding of health and well-being that goes beyond strictly biomedical or religious domains. We then present an initial model, based on the idea of “embodied cognitive logics,” for understanding how contemplative practices can be studied scientifically and implemented in a secular manner while navigating between the two rocky bluffs of religious and cultural relativism, on the one hand, and a reductionist and totalizing picture of human spirituality, on the other.⁸ We conclude by noting additional questions regarding the secularization and scientific study of contemplative practices that lie beyond the scope of this article, but which should be kept in mind and hopefully addressed by other scholars as work in this area progresses.

Mindfulness-Based Programs

When we think of the word “meditation,” several things may come to mind: a simple relaxation technique, a trance-like state, emptying the mind of thoughts, or communion with the divine. To think of meditation as a single practice or technique, however, can be very misleading, given the fact that there are many traditions of meditation and a wide variety of meditation techniques, often with completely different goals, many of which may be tied closely to a religious worldview.⁹

One of the best-known and most commonly researched meditation programs is Mindfulness-Based Stress Reduction (MBSR), developed by Jon Kabat-Zinn at the University of Massachusetts Medical Center. Interestingly, although Kabat-Zinn has acknowledged drawing from Buddhist practices and sources in constructing it, MBSR does not correspond to any single Buddhist contemplative practice or tradition.¹⁰ Rather, it is a secular behavioral medicine program that combines mindfulness meditation training with yoga and psycho-social skills training. The program is typi-

cally delivered in a group format: mixed groups of up to thirty participants meet once per week for two hours over the course of eight to ten weeks. The program is designed to help individuals reduce stress and see “that there is a way of being, a way of looking at problems, a way of coming to terms with the full catastrophe that can make life more joyful and rich than it otherwise might be, and [to give them] a sense also of being somehow more in control.”¹¹ This is accomplished through the moment-to-moment practice of “mindfulness,” which is defined as the act of “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally.”¹² Instructors further encourage practitioners to nurture self-acceptance, cultivate “non-doing,” and learn how to “shift over to a ‘being’ mode” (rather than a “doing” mode).¹³

Building off of Kabat-Zinn’s work, Shapiro et al. have proposed a model of mindfulness which involves three axioms: intention (one’s aim or goal in the meditation practice), attention, and attitude (paying attention in an accepting and affectionate way), which they argue are the three key mechanisms of mindfulness.¹⁴ By attending with open, non-judgmental awareness and with a particular intention, one can learn to re-perceive a situation in a way that leads to positive change. Thus, a key aspect of this style of mindfulness practice is that it involves changing one’s relationship to thoughts rather than altering the content of such thoughts.¹⁵ Furthermore, proponents of this style claim that through the process of re-perceiving, one develops insight and learns to “attend to the information contained in each moment,” thereby affording the practitioner the capacity to interrupt the automatic habitual reactive patterns, clarify their personal values, and, through exposure, develop cognitive and emotional flexibility in responding creatively to situations. A growing body of evidence supports the idea that mindfulness practices have significant potential to reduce stress, likely by breaking the seemingly automatic habitual tendencies that individuals have to react, rather than respond, to stressful situations, and by reducing the negative impact of recurring distressing thoughts.¹⁶

Other mindfulness-based programs, including Mindfulness-Based Cognitive Therapy (MBCT), developed largely by Teasdale and Segal, have incorporated more explicit cognitive mechanisms. MBCT integrates aspects of Cognitive-Behavioral Therapy for depression with elements of MBSR programs.¹⁷ Although MBCT can be seen in some ways as a combination of MBSR and CBT, the CBT elements are not integrated directly into the meditation practice itself and are not aimed at changing the contents of thoughts per se. As Teasdale and Segal note, “Unlike CBT, there is little emphasis in MBCT on changing the content of thoughts; rather, the emphasis is on changing awareness of and relationship to thoughts. Aspects of CBT included in MBCT are primarily those designed to facilitate ‘decentered’ views, such as ‘thoughts are not facts’ and ‘I am not my thoughts.’”¹⁸ In terms of the degree of cognitive reappraisal employed in MBCT, therefore, it appears to differ little from MBSR, which also includes the ideas that “thoughts are not facts” and “I am not my thoughts.”

More recently, researchers have begun exploring the ways in which analytically oriented practices, such as cognitive-based compassion training (CBCT), may not only reduce immune reactiv-

ity to psychosocial stress but also increase emotional awareness and emotional intelligence. Rather than simply learning to change one's relationship to thoughts (e.g. seeing thoughts as unreal) as is often taught in mindfulness-based meditation programs, compassion training requires practitioners to actively work with their emotions and cognitive appraisals in order to release resentment, hostility and indifference toward others and develop a deep feeling of affection for, and positive connection with, others. CBCT and related practices can therefore be seen as more normative in aim and scope than MBSR and MBCT. If effective, such practices would improve not only relationships but also health, as studies have shown that social connectivity has a protective effect against a wide range of factors, including stress, depression, and PTSD.¹⁹ Psychosocial stress, including depression or a perceived sense of social isolation, can also trigger the production of pro-inflammatory cytokines, which have been implicated in a host of chronic disorders. Raison, Principal Investigator on several key CBCT studies at Emory University, and his colleagues have demonstrated that college students who are taught and practice cognitive-based compassion training show reduced emotional upset in response to stress, as well as less activation of autonomic and immune pathways that have been implicated in the development of a host of chronic, stress-related illnesses, including depression, heart disease, obesity, diabetes, and dementia.²⁰ It may be the case that learning to see others as sources of social support rather than as social threats can increase connectivity and reduce immune reactivity.²¹ Contemplative practices seem therefore to have health benefits related to the reduction of stress, improvement of immune function, and other positive health outcomes; however, their salutary effect may go beyond this, to encompass the promotion of optimal modes of health and healing.

Shifting Paradigms in Understanding Health and Well-being

Related to the increased interest in contemplative practices is another trend: a gradual shift in our contemporary view of human health and well-being away from a strictly biomedical paradigm of health towards a more holistic and encompassing paradigm of health and well-being. According to the biomedical paradigm, which has long dominated discourse on health in Western societies, health is understood primarily through a negative definition: health (physical or mental) is the absence of disease. A positive understanding of health is not present in this paradigm. Furthermore, disease is typically understood narrowly and does not include generalized dysphoria, a lack of purpose or meaning in one's life, a lack of meaningful relationships, or what has been called existential suffering.²²

The biomedical paradigm is powerful and effective, but its limitations are increasingly being discussed, and attempts to understand the full scope of human suffering and well-being through a biomedical paradigm have come under severe criticism.²³ Medical anthropologists such as Arthur Kleinman and others have expressed concern that the "medicalization" of human suffering—whereby mental, social, and existential suffering is either reduced to the level of mental disease or,

if it cannot be, is discounted altogether—reduces the complexity of human experience to simplistic and often unhelpful categories (such as “disease” and “cure,” narrowly understood).²⁴ Such a reduction does a disservice to individuals who are undergoing very real suffering, yet who do not suffer from a diagnosed medical disorder, and whose suffering may therefore go unrecognized or be trivialized.

An understanding of health that is restricted solely to the presence or absence of biomedically recognized diseases is highly truncated and cannot possibly accommodate the full scope of subjectivity in human life associated with well-being, happiness, and suffering. Not only is it extremely limited but it may not even be as useful as measures tied to subjective experience when evaluated in terms of predictive or analytic power, even in strictly health-related questions. Corey Keyes, for example, has shown that an understanding of positive mental health, or “flourishing,” can be just as important or even more important than an understanding of mental illness, even when it comes to concrete factors such as predicting the likelihood of future mental illness or suicide.²⁵

Recently, this recognition of the limitations of a strictly biomedical paradigm has resulted in a great openness to the role of religion, spirituality, and positive psychology in health and well-being. Although Jon Kabat-Zinn talks about this “paradigm shift” in his first book, *Full Catastrophe Living*, which still serves as one of the main reference books for the practice of MBSR, it seems that this paradigm shift is occurring gradually, and that the scientific study of meditation has been accompanied by a “medicalization” of meditation.²⁶ Perhaps due to the constraints of standard research protocols designed to evaluate the efficacy of drugs and other similar types of intervention, researchers often continue to conceptualize the efficacy of meditation as a simple “dose-response” and fail to consider a host of other factors essential to the efficacy of a particular meditation intervention, including the role of the teacher, participants’ practice goals and expectations, and treatment fidelity, to name a few. Most important, perhaps, is the fact that unlike a drug or surgical operation, meditation is an activity that takes place within the mind of the subject and does not involve a standard physical procedure; this fact renders a host of standard procedures used in medical research, such as the placebo, problematic.²⁷

There are, of course, other powerful paradigms for understanding the well-being and health of individuals, namely those contained in religious world views. Unlike biomedicine, which tends to eschew questions of meaning, most religious traditions do concern themselves with existential questions that are typically associated with the question of meaning and the establishment of meaningful relationships (human or divine).²⁸ Importantly, while biomedicine lacks a positive definition of health, religions typically do offer positive conceptions of health and well-being: be they salvation, enlightenment, or a kind of spiritual flourishing.

A problem remains, however, as long as these two dominant paradigms are considered to be the only options. The biomedical paradigm is broadly considered “universal” or “secular,” in the sense that it can be examined and implemented in the public sphere and is not dependent on a particular religious worldview or ideology. A religious paradigm is not. Although we can speak of the

role of “religion” in health and well-being, we recognize that there are many religions with diverse and often conflicting views of ultimate well-being and of the causes and nature of human existence and suffering. If the only two options available to us are the biomedical paradigm and the religious paradigm, we lack a common ground where we can speak of questions that are broader than the biomedical paradigm allows, yet common to all human beings and not the specific provenance of one religious tradition or another.

There is, therefore, a strong need for the theoretical and practical exploration of a middle space between these two paradigms, a space for what we might tentatively call “secular ethics,” “spirituality,” or “basic human values.”²⁹ There is a wide literature on the idea of the “secular,”³⁰ of course, including the discussion of whether this term and its counterpart, “religion,” are inescapably Western constructs. Indian scholars from Amartya Sen to the present Dalai Lama, however, have argued that “secular” takes on a different meaning in the Indian context, where it does not mean anti-religious but rather a lack of partiality (positive or negative) towards any religious tradition, thereby implying a tolerance towards religious differences.³¹ Sen calls it “the ‘neutrality’ interpretation of secularism that has emerged powerfully in India,” namely, “the secular demand that the state be ‘equidistant’ from different religions (including agnosticism and atheism). . . .”³² Connected with this particular idea of secularism, the Dalai Lama employs the term “spirituality” to refer not to some otherworldly experience or reality but to the domain of those basic human values that are shared across religious and non-religious traditions and that are therefore important for all human beings, regardless of religious affiliation or lack thereof. “Spirituality” thus becomes the domain of a “secular ethics” and the cultivation of basic human values. This is the domain that encompasses the cultivation and practice of human values—what we might call “character.” It is the moral or ethical dimension of life that is shared across groups of individuals. Whether this is in fact possible is contested by some.³³ What seems clear, however, is that if such a domain is possible, then it avoids certain pitfalls caused by the prior two paradigms. Unlike the biomedical paradigm, the paradigm of secular ethics includes meaning and a broader range of human experience, suffering, and well-being. Unlike the religious paradigm, it allows for common dialogue across traditions and is not polarizing because it does not address questions of ultimate meaning or ultimate well-being. This is therefore the very domain in which secularized contemplative practices may attempt to operate.

The idea that there are basic human values is, of course, also controversial, particularly in humanistic disciplines. Hesitation to recognize such basic human values can be well-founded, but it becomes a limitation if taken too far—for example, if it becomes a denial that human beings could share common values that cut across cultural and religious boundaries, such as an appreciation for kindness or compassion.³⁴ Opening the door to what is common across religions does not undermine this effort to show the importance of religion as a field of study, however. In fact, it may enhance our appreciation of the importance of religion in human life and supplement existing understandings of religion. Interestingly, whereas scholars of religion have emphasized their dis-

tinctive aspects over their commonalities, sometimes to the point of problematizing the very idea of dialogue in a common language or over a common ground,³⁵ anthropologists and scholars examining the cognitive and evolutionary bases of religion are drawn towards the opposite problem of creating definitions of religion that may fall short of capturing the diversity and sophistication of religious traditions because they approach a kind of reductionism by seeking to explain the religious through a single function, type of cognition, or type of belief.³⁶ Most of these scholars are no doubt aware of, and seek to avoid, such problems, but nevertheless there seem to be two poles—utter distinctiveness and incommensurability on the one hand, and a reductive, totalizing view on the other hand—either of which, if taken alone, would result in a distorted understanding of religion.

This reconceptualization of health and well-being through the acceptance and promotion of “secular ethics” allows for a focus on preventive and health-enhancing interventions, particularly those that explicitly aim to increase positive emotions, emotional awareness, social connectivity, and prosocial behavior.³⁷ This approach could have enormous positive potential, particularly in educational settings. Up to now, modern education has focused heavily on the acquisition of knowledge and intellectual skills but has neglected the area of emotional, social, and ethical development. Where this latter dimension has been taught, it has tended towards a type of moral education that teaches “values” but not how to cultivate those values; in short, it has lacked a contemplative pedagogy. The negative effects of this can be seen across society as well as in schools themselves, where children engage in aggressive behavior, bullying, drug use, and “acting out.” Further, the need to improve and promote factors that lead to health and educational success are highly acute in foster care settings where children exposed to early childhood abuse and/or neglect are at significantly higher risk for attempting suicide and developing other severe psychiatric illnesses.³⁸

Overview of CBCT

To address these issues, the authors created Cognitive-Based Compassion Training for Children, based largely on the adult CBCT protocol developed by Geshe Lobsang Tenzin Negi at Emory University. This program draws heavily on analytical meditation practices drawn from the Buddhist *lojong* (Tib. *blo sbyong*) tradition while also building off of, and including elements found in, other programs that teach mindfulness or social and emotional learning (SEL) skills to elementary school children. While many SEL programs facilitate the cultivation of emotional awareness and emotion regulation, relationship skills, perspective-taking, and responsible decision making, which may reduce aggressive behaviors and increase academic performance,³⁹ the CBCT for Children program also explicitly aims to cultivate emotional intelligence, empathy, and compassion through a contemplative pedagogy that employs the systematic practice of meditation.

The Buddhist *lojong* tradition emerged in Tibet in the eleventh century. Meaning “thought transformation” or “mind training,” *lojong* is a systematic program for reversing thoughts, emotions and behaviors that are harmful to oneself and others and transforming them into thoughts, emo-

tions, and behaviors that are beneficial to oneself and others. In his book on the *lojong* tradition, entitled *Mind Training*, Geshe Thupten Jinpa writes that the various etymologies of the term *lojong* all point to “the salient idea of transformation, whereby a process of training, habituation, cultivation, and cleansing induces a profound transformation—a kind of metanoesis—from the ordinary deluded state, whose modus operandi is self-centeredness, to a fundamentally changed perspective of enlightened other-centeredness.”⁴⁰

Lojong differs from other approaches, such as MBSR and other mindfulness-based practices, in its starting assumptions, its methods, and its final goal. In terms of method, *lojong* combines the stability of mind and attention that comes from mindfulness and shamatha training with certain concepts and lines of reasoning that radically alter one’s perspective of a given situation. Without focused meditation, new perspectives are fleeting and cannot penetrate established habitual patterns of thinking and acting.⁴¹ Without the insight of new perspectives, focused meditation on its own cannot quickly lead to the radical changes in perception and cognition needed to undermine deep-seated predispositions. It is important to note that *lojong*-based practices are not opposed to less analytically oriented practices such as mindfulness but employ mindfulness alongside analytical meditation. As the CBCT protocol, authored by Geshe Lobsang Tenzin, notes:

Although our presentation of compassion meditation begins with training in concentrative meditation (*shamatha*), it is important to recognize that the Tibetan Buddhist *lam rim* (graded stages of the path to enlightenment) literature traditionally locates *shamatha* in the techniques for practitioners of advanced capacity—highlighting the fact that stabilizing the attention is no easy or quick process. The literature also emphasizes that every practice, from the very beginning, must be accompanied by focused meditation to stabilize and incorporate the understanding that results from analysis, in order to deeply infuse that understanding with one’s personal experience. What is clear from this is that basic attentional stability is the key to any meditation. . . . Without any basic training in concentrative/mindfulness techniques, it would be difficult for the participant to gain personal, undistorted awareness of inner thoughts, feelings, aspirations, and emotions. Without these insights, the participant risks remaining a victim of unconscious impulses and patterns, without the ability to transform these problematic emotional/mental states. Thus these techniques for developing and refining attentional stability form the foundation for all subsequent meditation components in this protocol.⁴²

Significantly, the protocol notes that mindfulness is a tool that helps, among other things, in recognizing problematic mental states that need to be transformed. Thus, discernment and discrimination are of significant importance. In its essence, the perspective that *lojong* takes is that self-centered thinking and behavior cause suffering for oneself and others, while other-centered, altruistic thoughts, emotions, and behaviors ultimately benefit both oneself and others. This is encapsulated in a famous verse from the *lojong* text entitled “The Seven Point Mind Training” (Tib. *blo sbyong don bdun ma*) which reads: “Banish all blames to the single source; / Toward all beings, contemplate their great kindness.”⁴³

The CBCT protocol follows a progression through these ideas in eight ordered topics. These

are:

1. **Developing Attention and Stability of Mind:** The foundation for the practice is the cultivation of a basic degree of refined attention and mental stability.
2. **Cultivating Insight into the Nature of Mental Experience:** On the basis of this stability, one observes the inner world of thoughts, feelings, emotions, and reactions, gaining insight into their fleeting nature and how some affect the mind positively while others lead to mental suffering and prompt destructive actions.
3. **Cultivating Self-Compassion:** One explores whether there is an underlying aspiration below all these thoughts and emotions and whether this is an aspiration for happiness and wellbeing and freedom from unhappiness and dissatisfactions. One explores which mental states contribute to fulfillment and which ones prevent it. One can then resolve to emerge from those mental and emotional states deemed toxic and harmful and cultivate those that promote happiness; this resolve to take care of one's current and future well-being is called self-compassion.
4. **Developing Equanimity:** Normally one tends to hold fast to categories of friends, enemies, and strangers and to react unevenly to people, based on those categories, with over-attachment, indifference, and dislike. One examines these categories closely to determine if they are fixed and rigid or if they are superficial, in which case one generates the wish to relate to people from a deeper perspective, namely on that sees that everyone is alike in wanting to be happy and to avoid unhappiness.
5. **Developing Appreciation and Gratitude for Others:** One questions our tendency to view ourselves and others as independent, self-sufficient actors, considering how no one can thrive or even survive without the support of countless others. A deep recognition of one's interdependence with others leads naturally to appreciation and gratitude for others, even if they are strangers.
6. **Developing Affection and Empathy:** This involves deeper contemplation and insight into the ways in which myriad benefits are derived from countless others, in which case one may feel a natural inclination to repay this kindness. This enables one to relate to others with a deeper sense of connectedness and affection. By relating to others with a profound sense of affection and endearment, one is able to empathize more deeply with them. One cannot then bear to see others suffer any misfortune and one rejoices in their happiness.
7. **Realizing Wishing and Aspirational Compassion:** Enhanced empathy for others, coupled with intimate awareness of their suffering and its causes, naturally gives rise to compassion: the wish for others to be free from suffering and its conditions.

8. Realizing Active Compassion for Others: In the final step, the participant is guided through a meditation designed to move from simply wishing others to be free of unhappiness to actively committing to assistance in their pursuit of happiness and freedom from suffering.⁴⁴

Thus, key skills developed in this program are emotional awareness and intelligence, emotion regulation, self-compassion, interdependence, appreciation, empathy, non-discrimination, equanimity (understood as impartiality), and compassion (understood as the wish to relieve others from suffering). Lastly, in terms of goal, *lojong* differs from mindfulness programs and SEL programs because the explicit goal of *lojong* is the generation of altruism and engaged compassion. More widely, the goal of the CBCT curriculum designed for children is not only to help children generate altruism and engaged compassion but to transform both the school community of children, parents, teachers, staff, and administrators as well as the family unit and foster system into a community of compassion.

Mindfulness programs for children are increasing in popularity, and some of these employ lovingkindness (*metta*) meditation alongside mindfulness. CBCT has important differences to lovingkindness meditation, however. Lovingkindness meditation, as typically taught, involves the generation of an affective state (love and affection), which is then extended outwardly to encompass ever-broadening circles of individuals. Apart from this method, it does not seek to transform the cognitive mechanisms that underlie feelings of hostility or instances of prejudgment and bias. Thus, whereas traditional forms of lovingkindness meditation can be considered effectively non-analytical, CBCT teaches concepts such as interdependence and gratitude to foster a sense of connectedness and equality with others that then yields cognitive changes which allow a more encompassing and more powerful sense of love and compassion for others.⁴⁵

CBCT for Children

The adult CBCT program is an eight-week-long group intervention that meets once a week for two hours or twice a week for one hour. Each session consists of pedagogical material presented by the instructor(s), a guided meditation of ten to thirty minutes, and group discussion. Program participants are asked to meditate daily for the duration of the program and are given a recording of each week's guided meditation to support their practice at home.

We adopted a similar format for our work with elementary school and foster care children in Atlanta. Our early childhood program for children aged five through eight years is an eight- to ten-week-long group intervention. The program follows the same conceptual sequence as the adult program with age-appropriate modifications. Classes meet twice per week for twenty-five to thirty minutes per session during the normal school day. Classes begin with a short meditation practice and a brief overview or introduction to the week's topic, followed by an activity, story, or game to facilitate learning and student engagement. Children are not asked to practice between classes,

though some teachers occasionally lead the children in mindfulness meditation practice during regular class time. Teachers are also sometimes involved in the class discussion or stories, and they often help facilitate dialogue. In this way, we are able to weave the early childhood program more seamlessly into the children's daily lives. The program is secular in the sense that it does not require or encourage any particular religious orientation or background. Any elements of *lojong* that would be considered religious, such as religious terminology or mention of religious figures, are not included.

Research on social and emotional learning (SEL) programs, which have been studied and implemented in a variety of educational contexts nationwide, demonstrates that students in SEL programs show improvement in emotion regulation skills, attitudes towards self and others, social behaviors, and academic performance.⁴⁶ SEL programs typically include training in five core social and emotional skills, including (1) self-awareness, (2) self-management, (3) social awareness, (4) relationship skills, and (5) responsible decision making. Our CBCT protocol explicitly addresses the first four through training in emotion awareness and intelligence (1 and 2), empathy and appreciation (3), and affection and engaged compassion (4). Though CBCT training promotes responsible decision making (5) through explicit focus on the relationship between cause and effect as well as the recognition that we are responsible for our own actions, CBCT does not prescribe a set of ethical guidelines; rather, participants are encouraged to come to their own conclusions on productive and harmful behavior through analysis and reflection. Further, though we incorporate the key successful features of standard SEL programs, our focus on and inclusion of both focused meditation and systematic analytical meditation is crucial to long-lasting transformation. It is considered essential in the program not only to teach social and emotional skills and concepts but also to provide training that enables the student to embody that understanding through personal experience.

We know of no studies to date that have examined either the use of CBCT with children or analytically oriented compassion meditation training in conjunction with basic SEL training. Given the potential success of this program based on the rationale outlined above, we were compelled to develop this program and pilot in a preadolescent educational setting, with no guarantee that the material would be translatable to very young children. Because younger children use different cognitive strategies and have different comprehension abilities than adolescents or adults, it was essential to explore which CBCT practices were developmentally appropriate for this particular population. We were invited to conduct this initial pilot study at the Paideia School in Atlanta, GA, where several teachers had already introduced mindfulness practices into their classrooms and had witnessed promising results.⁴⁷ We sought to build off of this basic training and work closely with teachers experienced in adapting meditation practices for preadolescents.

We visited the school for three months to get a feel for the classrooms before initiating our pilot program. Nevertheless, the first few weeks did not immediately lead us to believe that teaching compassion meditation to children would be possible. While teaching the preliminary practice of

focusing on the breath, we found that the children were unable or unwilling to keep their eyes shut for longer than a moment; they seemed too interested in what was going on and in watching each other and, especially, us. When we taught them to count the breath, they eagerly reported being able to count to a hundred without distraction (a feat that even somewhat experienced meditators would not find particularly easy). Teaching them to focus on sensations proved slightly easier, but that required first teaching them what sensations were.

Surprisingly for us, however, when we actually reached the portion of the program that dealt with more conceptual issues, such as recognizing the connection between emotional states and behavior, cultivating equanimity or impartiality towards others, and recognizing interdependence, the children seemed to engage these concepts just as quickly as—and sometimes it seemed even more quickly than—adults. The story that opens this article is one example.

Another example is when we explained the importance of identifying destructive emotions as early as possible when they arise in the mind in order to prevent them from escalating. We would relate these concepts through question and answer, stories, or plays. In this instance we asked them, “Do you know what a forest fire is?” Of course, they did, and they also knew how they got started. When there is just a spark in the forest, we explained, it is easy to put out, but when it grows into a large forest fire, it’s too late to prevent it from doing a lot of damage. Even the whole fire department cannot put it out; they just have to watch it burn until it burns itself out. We spoke about destructive anger and how it, too, can only be stopped if it is noticed early on through mindfulness, when it is still just an irritation. At the end of our conversation we got ready to leave, wondering if any aspect of our rather abstruse teaching had had any effect. One small child of five or six years of age who always sat attentively in the front (sometimes in the full lotus position, which he must have learned at home), approached us and stunned us by saying, in a very calm voice, “There are a *lot* of forest fires in my life.”

In another class, we were again talking about how anger arises and affects our interactions with others. A girl, perhaps seven years old, said, “Sometimes the person you get angry at the most is *yourself*. You just think, how come I keep getting into these situations? And you get so angry.” Typically, we would be happy if adults in the meditation classes we teach could have such insights, but to hear comments like these come from children was most encouraging. We also heard second-hand reports (from teachers and school administrators) of children employing the techniques they had learned through the program: one described a small boy who calmly breathed in and out while receiving a shot and who told the surprised school nurse that he had learned in class that he could focus on his breathing instead of getting scared or upset.

By the end of our eight-week trial we had learned a great deal about which techniques resonated with and were of interest to children in this age group. We also found that, in our estimation, the children were able to grasp the essentials of all of the concepts we put forward, once we found an age-appropriate way of presenting the material and had engaged them through stories, plays, and games rather than straightforward lecturing as typically happens in adult CBCT classes. Partly,

this involved breaking down the eight topics of CBCT into subcomponents that could be more easily taught to the children.⁴⁸ With the help of the Paideia library staff, we also identified components that are well supported in children's literature. We also discovered gaps in which CBCT raises a topic or reflection in a way that is not addressed in the existing literature. This suggests that there is room for the further development of children's literature in the realm of emotional literacy.

A further unanticipated outcome was that while we were teaching the children, the teachers were also fully participating and gaining a deeper understanding of CBCT. Up to five months after the conclusion of our pilot program, teachers continued to tell us about how their classrooms were being positively affected by the concepts and practices of mindfulness and compassion. They also shared how they were rethinking their teaching to incorporate these concepts. A pair of teachers shared that while they had taught about Martin Luther King, Jr. each year around the time of the holiday in his honor, they had never thought to use the occasion to teach the concepts of compassion and impartiality. They now saw how these concepts could be fully integrated into their regular teaching.

CBCT for Foster Children

In general, foster care youth suffer from exposure to traumas known to negatively affect one's ability to deal with stressful life events. Most significantly, foster youth often suffer abuse and/or neglect and separation from their biological parents, both of which have been shown to predict academic performance and the likelihood of dropping out of school. These difficulties likely arise from deeper emotional afflictions. Compounding the problems that arise from early adversity is the fact that the parental separation itself is a risk factor for poor adult emotional and physical health outcomes, even in the context of abusive or neglectful parents.⁴⁹

As mentioned above, research suggests that enhancing our sense of social connectivity is a key to our health and survival. Not only do we depend on others for material support, such as food and shelter, for example, but it also seems that feeling connected to others enhances our psychological and physiological well-being. Taken together, these data suggest that an intervention designed to enhance emotional resilience and intelligence, prosocial behavior, and the capacity for developing and nurturing relationships might improve a wide range of academic, behavioral, and health outcomes in young and at-risk students. By learning to reduce dysfunctional attachments to biological parents and by increasing connection with other potential sources of support, the CBCT program may have great potential to help at-risk youth.

To see whether CBCT would be extendable to this population, we piloted a program at a girls' home for foster youth in Atlanta, GA in the fall of 2008. Six girls, aged thirteen to sixteen, attended an eight-week-long CBCT training program. As with adult classes, not all the girls reacted with equal enthusiasm for the program, but the results were nevertheless very encouraging. All the girls displayed a level of appreciation, and in particular, two of the six girls showed great eagerness in

not only learning the concepts but also practicing the meditations. One girl reported practicing every day for a month; she claimed that it had changed her entire outlook on relationships. Previously, she said, she had decided that due to her personal circumstances she would have to clamp down on her emotions and keep others at a distance. Through the program, she came to realize that that would only harm herself and prevent her from having meaningful relationships with others, including her adoptive mother. Her testimony to the effectiveness of the program, in addition to the positive reactions of the other girls, proved influential in encouraging the state to collaborate with Emory on a full-scale study.

The Georgia Department of Health and Human Services and the Center for Disease Control in Atlanta, GA are now funding a randomized, wait-list control trial of CBCT for nearly eighty foster children, entitled “A Study of Cognitively-Based Compassion Training (CBCT) to Enhance Health and Well-Being in Adolescents in Foster Care in Metropolitan Atlanta.” The study, for which Charles Raison of Emory’s School of Medicine is Principal Investigator, is examining the efficacy of this training for reducing emotional reactivity, psycho-social stress, and behavioral problems. If this study yields positive results, the aim is to extend this service throughout the foster care system and to offer similar training programs to foster families, caseworkers, and administrators.

In contrast with the young children at the Paideia School, the challenge in translating CBCT for foster youth lies in the cultural and socioeconomic divide that can arise between the children on the one hand and the instructors and their materials on the other. Atlanta’s foster children are predominantly African American and come from lower-income families and home environments that are often harsh. There is a strong need to attend to the development of practices such as CBCT so that they are presented in both culturally and developmentally appropriate ways.

Embodied Cognitive Logics

The measurable data on health outcomes of the CBCT program remain to be collected, but a number of theoretical issues have already come to light through this work regarding the secularization and scientific study of contemplative practices that we feel are equally important and should be addressed. First, the expansion of the scope of contemplative studies to include analytical forms of meditation alongside mindfulness meditation creates greater room for exploring what we call “the transformation of subjectivity”: a cognitive and emotional transformation of the person as an individual, of the way they experience themselves, others, and the world around them.⁵⁰ It seems clear that this is what contemplative practices such as CBCT and *lojong* seek to effect. Continued investigation into contemplative practices that includes attention to analytically oriented practices may also help to broaden our understanding of health and well-being beyond strictly biomedical or religious domains, as outlined above. A bridge must be built, however, that helps us understand how contemplative practices can be studied scientifically and implemented in a secular manner while avoiding both religious and cultural relativism and reductionism.

One way to build this bridge, we propose, is through the idea of “embodied cognitive logics.” “Embodied cognitive logics” refers to the dynamic and complex sets of causal relationships in cognition, affect, and body function that are deployed by religious practices to generate powerful concordant cognitive-affective state and trait changes, but which, because they are cross-culturally shared due to being grounded in human embodiment, can be employed in non-religious contexts as well. This theory builds off of recent work in embodied cognition by Lawrence Barsalou, George Lakoff and Mark Johnson, Andy Clark, and others, but expands on that work by applying theories of embodied cognition to the study of religious and contemplative practices, which often contain sequences of practices (liturgies, *sadhanas*) that build up cumulative effects both synchronically and diachronically, and also by suggesting that certain cognitive-affective states promote or inhibit other states in predictably regular ways (hence the term “logics”).⁵¹

In his talks on the dialogue and research collaborations between Buddhist contemplatives and scientists, the Dalai Lama has come in recent years to speak of a threefold division of “Buddhist practice,” “Buddhist philosophy,” and “Buddhist science.”⁵² The purpose of this categorization is to conceptually differentiate between (1) the set of religious practices and beliefs that constitute Buddhism, (2) the philosophical and theoretical systems that underpin or are used to justify them, and (3) verifiable, empirical knowledge of the world, both external (the physical world) and internal (the nature of the mind and emotions). By dividing the Buddhist tradition in this way, the Dalai Lama seeks to draw a line between Buddhism as a religion, which would hold validity solely for those who adhered to it as a religion, and the tradition of investigative contemplation within Buddhism that seeks universal knowledge through empirical means (hence the use of the word “science,” while “universal” here means cross-cultural and not religion-specific).⁵³ The purpose of making such a distinction has to do with the discovery of knowledge, the very heart of the scientific endeavor. Such reframing also allows us to consider whether contemplative traditions that have investigated individual experience and have persisted over time contain knowledge—in particular, psychological insights about the way the mind works, logics—that is relevant for the effective transformation of subjectivity. Is this knowledge inextricably tied up in the religious conceptions of the tradition, or can it be made available and usable to individuals who do not belong to that tradition without their joining it?⁵⁴

Recent work in the scientific study of analytical contemplative practices suggests that the answer is yes, and this evidence is particularly compelling when it involves a cross-cultural component.⁵⁵ Drawing from this research, we argue that analytically oriented contemplative practices make use of embodied cognitive logics to effect a transformation of subjectivity. The idea of embodied cognitive logics rests upon the notion that, just as human beings share physical commonalities, we also share mental or psychological commonalities regarding the way we process meaning, affect, and ethical decision making, many of which are rooted in our very embodiment. Furthermore, these commonalities represent an embodied cognitive-affective-moral calculus—that is, a complex and dynamic network of causal relationships that map out the ways a particular embodied

cognitive-affective state, once generated, influences other states by inhibiting or promoting them. (Though causal, it is not necessary for this model to be rigid or fixed, in the sense that the causal relationships could not be changed or altered through learning or other factors.) The importance of this model is that it enables us to study not just individual cognitive and affective states but also the relationships between states. This has particular relevance when it comes to analytical meditation practices that involve generating certain cognitive-affective states in order to inhibit other non-desirable states and promote desirable ones, such as the common Buddhist practices of meditating on love to eliminate anger and hatred, or meditating on the impermanence and inevitable decay of the human body as an antidote to attachment and sexual desire.

Such an approach may seem commonsensical. Yet psychology and cognitive neuroscience has devoted little attention thus far to the study of how emotions and other cognitive-affective states actually interact with each other, rather than how they operate on their own, and how such interactions affect moral cognition and ethical behavior.⁵⁶ Furthermore, in religious studies, and in the humanities in general, there is too often a strong reluctance to recognize human commonalities at anything beyond a physical level—that is, in the realms of meaning, values, culture, and so on.⁵⁷ If cultural relativism is taken to preclude shared commonalities across cultures on the levels of value and meaning, then meaningful discourse in the area of “secular ethics” or “universal human values” becomes impossible. Theories of embodied cognition, however, suggest that our minds and bodies are more intimately connected than we have often given them credit for, and this may lead to more nuanced accounts of how diverse social, cultural, and religious groups share cross-cultural commonalities in the sphere of the mind and meaning making, and not only in terms of biology.

Conclusion: Remaining Issues in the Secularization and Scientific Study of Contemplative Practices

The pilot program for foster children has already, as noted, led to a large on-going study in partnership with the Georgia State Department of Human Resources. In addition, based on the apparent success of the pilot program at Paideia, we are now planning a randomized trial of CBCT in preadolescent students to evaluate whether children who receive this training show measurable improvements in emotional well-being, social connectedness, and markers for physical health as compared to basic mindfulness or SEL training. Since most of the research on the effects of meditation has been conducted on adult populations and there is little to no research investigating the long-term effects of meditation practices on children, we feel that researchers and meditation instructors should partner not only with experienced teachers but also with developmental psychologists and others who have extensive experience working with this age group; this, therefore, is the approach we are taking. Given the lack of data on the effects of such training among these age groups, researchers and clinicians must proceed with caution. Moreover, findings at a unique institution like the Paideia School may not be generalizable to other educational settings. A great

deal of work remains to be done before we will be able to conclusively determine the feasibility, scope, and possible benefits of introducing analytical contemplative curricula into educational and foster-care settings.

Cultural awareness and sensitivity will also be key to the successful delivery of secular contemplative practices. As discussed above, we believe that CBCT draws upon universal or secular ethics; thus, its potential effects should not be limited by one's religious beliefs, nor should the practice explicitly challenge such beliefs. The aim is to develop programs that can cross religious and cultural boundaries while recognizing that adaptations will come in the form of stories and content that are relevant, intelligible, and effective for the specific target group.⁵⁸

The long-term success of these programs also depends upon the seamless integration of these practices into the individual's daily life as well as the surrounding community. Whereas a large number of interventions and meditation studies pull individuals from their natural environments to teach them meditation in a new environment, we see special advantages in being able to go into schools and foster homes to teach contemplative practices. We feel that the practices likely have cumulative effects that are more powerful when they are practiced in a community that lives together and is intentional about adopting certain practices. (This is no doubt an important rationale behind intentional communities such as Thich Nhat Hanh's Plum Village and Jean Vanier's L'Arche communities.⁵⁹) In classrooms and group foster homes, children are living with each other day by day and interacting with each other over time. What they learn during their contemplative classes can naturally bleed over into their communal life in the breaks between those classes. In interventions where the participants are drawn from different workplaces, communities, and schools, however, they come together only for the duration of the class and do not see each other again in the intervals. Their chance to build a sense of community and collective spirit with each other over the practice is therefore limited to the actual times of the intervention. As research on contemplative practices continues, it will be important to seek ways of assessing group dynamics and how not only individuals but also communities change through the teaching and practices of mindfulness and compassion.

Endnotes

1 The authors would like to thank the following individuals for their support in the projects mentioned in this article: Geshe Lobsang Tenzin Negi, Charles Raison, John Dunne, Philippe Rochat, Joni Winston, Erin Robbins, Barbara Dunbar, and the teachers of the Paideia School who collaborated with us on the program.

2 This description is a reconstruction based on the notes of one of the authors. It describes a class session during the authors' pilot of CBCT for Children at the Paideia School in the fall of 2009.

3 P. Grossman, L. Niemann, S. Schmidt, and H. Walach, "Mindfulness-based Stress Reduction and Health Benefits: A Meta-analysis," *Journal of Psychosomatic Research* 57 (2004): 35-43.

4 See Corey Keyes, “Promoting and Protecting Mental Health as Flourishing: A Complementary Strategy for Improving National Mental Health,” *American Psychologist* 62, no. 2 (2007): 95–108 and Chikako Ozawa-de Silva, “Too Lonely To Die Alone: Internet Suicide Pacts and Existential Suffering in Japan.” *Culture, Medicine, and Psychiatry* 32 no. 4 (2008), 516-55.

5 Philippe Rochat’s work on the early development of empathy, self/other distinctions, and social cognition suggests that from very early on we have a powerful need for affiliation that gives rise to a corresponding fear of social rejection and isolation. Rochat calls this “the basic affiliative need,” and his intuitions, as laid out in his recent book [*Others in Mind: Social Origins of Consciousness* (Cambridge: Cambridge University Press, 2009)] support the idea that social connectivity is extremely important for human well-being from a very early age and throughout life.

6 The Dalai Lama has played an important role in the development of this work and in the scientific study of contemplative practices in general, not least in his role as the central participant in the dialogues between leading scientists and contemplative practitioners that the Mind and Life Institute has organized since 1987. In one such dialogue in 2005, the Dalai Lama noted that Buddhism divided all forms of meditation into two categories, one of which is non-analytical (the meditator does not engage in analysis of an item or subject matter) and the other of which is analytical. Although most research being conducted on meditation at the time was restricted to non-analytical practices, such as mindfulness meditation, the Dalai Lama emphasized in this gathering the importance of employing the knowledge contained in the contemplative traditions of Buddhism and other religious traditions related to the mind and emotions and how to train them, in educational settings and in a secular form, for the purpose of developing a holistic education of both heart and mind. (*Mind and Life XIII: Investigating the Mind 2005. The Science and Clinical Applications of Meditation*. DVD. The Mind and Life Institute.) It should be noted that the differentiation between “analytical” and “non-analytical” styles of meditation practice in the Buddhist tradition is a contested one that differs along sectarian lines; it is also reasonable to think that mindfulness practices such as MBSR do employ analytical styles of meditation to some degree, although not necessarily in the same way as, or to the extent of, protocols such as CBCT. More work needs to be done on styles of meditative practice and how categories of practice indigenous to religious traditions can be understood in light of current scientific knowledge. For recent examples of work in this area, see Antoine Lutz, Heleen A. Slagter, John D. Dunne, and Richard J. Davidson, “Attention Regulation and Monitoring in Meditation,” *Trends in Cognitive Sciences* 12, no. 4:163-169; and Antoine Lutz, John D. Dunne, and Richard J. Davidson, “Meditation and the Neuroscience of Consciousness: An Introduction,” in *Cambridge Handbook of Consciousness*, eds. Philip Zelazo, Morris Moscovitch, and Evan Thompson (Cambridge: Cambridge University Press, 2007), 499-554.

7 For work on teaching mindfulness to children, see Susan Kaiser-Greenland, *The Mindful Child: How to Help Your Kid Manage Stress and Become Happier, Kinder, and More Compassionate* (New York: Free Press, 2010); and Linda Lantieri, *Building Emotional Intelligence: Techniques to Cultivate Inner Strength in Children* (Boulder, CO: Sounds True, 2008).

8 This attempt is related to the efforts of several scholars of religion in recent years to find ways to bridge the divide between the humanities and the sciences in the study of religion, religious experience, and religious practices and beliefs. For two recent and influential examples, see Edward Slingerland, *What Science Offers the Humanities: Integrating Body and Culture* (Cambridge: Cambridge University Press, 2008); and Ann Taves, *Religious Experience Reconsidered: A Building Block Approach to the Study of Religion and Other Special Things* (Princeton: Princeton University Press, 2009).

9 For an intelligent commentary on this, see Thupten Jinpa, “Using Meditation to Gain Knowledge of Mental Reality,” *Mandala*, December 2006/January 2007, <http://www.mandalamagazine.org/archives/mandala-issues-for-2006/december/using-meditation-to-gain-knowledge-of-mental-reality/>.

10 Jon Kabat-Zinn, *Coming to Our Senses* (New York: Hyperion, 2005), 26.

11 Jon Kabat-Zinn, *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness* (New York: Bantam Dell, 2000), 19.

12 Jon Kabat-Zinn, *Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life* (New York: Hyperion, 1994), 4.

13 Kabat-Zinn, *Full Catastrophe*, 19. It has been pointed out that the “non-doing” approach to meditation training exemplified in MBSR may stem from, or have been influenced by, Buddhist traditions (such as the Japanese Zen tradition and the Tibetan Buddhist Dzogchen tradition) that stress the impossibility of achieving meditative realization through conscious effort. A rough parallel may exist in non-Buddhist Chinese thought as well; see Edward Slingerland, *Effortless Action: Wu-wei as Conceptual Metaphor and Spiritual Ideal in Early China* (Oxford: Oxford University Press, 2003). These traditions therefore advocate (often alongside or after a long period of conscious, effortful practice) a relaxation into a “natural state” that allows one’s natural qualities to unfold and manifest. John Makransky has developed an approach to compassion meditation drawing from the Tibetan Dzogchen tradition and this notion of allowing innate compassion to manifest, rather than effortfully cultivating it; see John Makransky, *Awakening Through Love: Unveiling Your Deepest Goodness* (Boston: Wisdom Publications, 2007). A comparison and contrast of Makransky’s method to CBCT would make for an intriguing study.

14 S. L. Shapiro et al., “Mechanisms of Mindfulness,” *Journal of Clinical Psychology* 62, no. 3 (2005): 373-86.

15 Kabat-Zinn, *Full Catastrophe Living*.

16 See J. Mark Williams, “Mindfulness and Psychological Stress,” *Emotion* 10, no. 1 (2000): 1-7; J.M. Greeson, “Mindfulness Research Update: 2008,” *Complementary Health Practice Review* 14, no. 1 (2009): 10-18; P.R. Goldin and J.J. Gross, “Effects of Mindfulness-based Stress Reduction (MBSR) on Emotion Regulation in Social Anxiety Disorder,” *Emotion* 10, no. 1 (2010): 83-91; and Erin L. Olivo, Brooke Dodson-Lavelle, Anava Wren, Y. Fang and Mehmet C. Oz, “Feasibility and Effectiveness of a Brief Meditation-Based Stress Management Intervention for Patients Diagnosed with or at Risk for Coronary

Heart Disease: a Pilot Study,” *Psychology, Health, and Medicine* 14, no. 5 (2009): 513-23.

17 J. D. Teasdale, Z. V. Segal, V. A. Ridgeway, and J. M. Soulsby, “Prevention of Relapse/Recurrence in Major Depression by Mindfulness-Based Cognitive Therapy,” *Prevention*, 68, no. 4 (2000): 616. As they explain, “MBCT is based on an integration of aspects of CBT [cognitive behavioral therapy] for depression (Beck et al., 1979) with components of the mindfulness-based stress reduction program (MBSR) developed by Kabat-Zinn and colleagues (e.g., Kabat-Zinn, 1990).”

18 Ibid. See also J. D. Teasdale, Z. Segal, and J. M. G. Williams, “How Does Cognitive Therapy Prevent Depressive Relapse and Why Should Attentional Control (Mindfulness) Training Help?” *Behaviour Research and Therapy*, 33, no. 1 (1995): 25-39.

19 John T. Cacioppo and Louise C. Hawkley, “Perceived Social Isolation and Cognition,” *Trends in Cognitive Sciences* 13, no. 10 (2009): 447-454.

20 Tadeus W. Pace, Lobsang Tenzin Negi, Teresa I. Sivilli, Michael J. Issa, Steven P. Cole, D. D. Adame, and Charles L. Raison, “Innate Immune, Neuroendocrine, and Behavioral Responses to Psychosocial Stress Do Not Predict Subsequent Compassion Meditation Practice Time,” *Psychoneuroendocrinology* 35, no. 2 (2010): 310-315. Research has also shown that advanced compassion meditation practitioners are able to strongly induce EEG patterns previously associated with positive emotionality and enhanced adaptive immune functioning. Antoine Lutz, Lawrence L Greischar, Nancy B Rawlings, Matthieu Ricard, Richard J Davidson, “Long-term Meditators Self-induce High-amplitude Gamma Synchrony During Mental Practice,” *Proceedings of the National Academy of Sciences of the United States of America* 101, no. 46 (2004): 16369. See also Antoine Lutz, J. Brefczynski-Lewis, T. Johnstone, and Richard J. Davidson, “Regulation of the Neural Circuitry of Emotion by Compassion Meditation: Effects of Meditative Expertise,” *PLoS ONE* 3, no. 3 (2008): doi:10.1371/journal.pone.0001897.

21 Or to borrow an analogy from Charles Raison, we can learn to reduce our immune response to perceived “pathogens” or “enemies.”

22 See, for example, the work of G. L. Engel, such as “The Clinical Application of the Biopsychosocial model,” *American Journal of Psychiatry* 137 (1980): 535-544; and Ozawa-de Silva, “Too Lonely.” The WHO, as early as 1948, defined health positively: “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” (Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States [Official Records of the World Health Organization, no. 2, 100] and entered into force on 7 April 1948.) A fully-fleshed out biopsychosocial model of health, however, remains to be developed or adopted in any widespread manner, and in the absence of a clear working alternative, the biomedical model of health remains arguably quite predominant.

23 The limitation of the current biomedical view of health, and its difficulty in accounting for the role of meaning and subjective experience, has much to do with its problematic conception of the mind-body

relationship. Overcoming this problem will have a profound impact on the way contemplative practices are viewed. See Chikako Ozawa-de Silva and Brendan Ozawa-de Silva, "Neither Dualistic Nor Monistic: Mind/Body Theory and Practice in Tibetan Medicine and Buddhism," *Body & Society*, forthcoming; Daniel E. Moerman, *The Meaning Response: Rethinking the "Placebo Effect"* (New York: Cambridge University Press, 2002); and Chikako Ozawa-de Silva, "Beyond the Body/Mind? Japanese Contemporary Thinkers on Alternative Sociologies of the Body," *Body & Society* 8, no. 2 (2002): 21-38.

24 For broader anthropological approaches to the question of human suffering that go beyond a narrow biomedical paradigm, see Arthur Kleinman, Veena Das, and Margaret Lock, eds, *Social Suffering* (Berkeley: University of California Press, 1997); Arthur Kleinman, *What Really Matters: Living a Moral Life Amidst Uncertainty and Danger* (New York: Oxford University Press, 2006); and Chikako Ozawa-de Silva, "Shared Death: Self, Sociality and Internet Group Suicide in Japan," *Transcultural Psychiatry* 47, no. 3 (2010), 392-418.

25 See Keyes, "Promoting and Protecting"; Corey Keyes, "Mental Illness and/or Mental Health? Investigating Axioms of the Complete State Model of Health," *Journal of Consulting and Clinical Psychology* 73, no. 3 (2005): 539-548; and Corey Keyes, Satvinder S. Dhingra, and Eduardo J. Simones, "Positive Mental Health Predicts Future Mental Illness," unpublished manuscript.

26 Jon Kabat-Zinn, *Full Catastrophe Living*.

27 In fact, by encouraging us to rethink the mind-body connection and the role of the mind in physical well-being, meditation and other contemplative practices encourage us to re-think the very concept of placebo, a re-thinking that could lead to significant changes in our approach to medical care.

28 See Peter Berger, *The Sacred Canopy: Elements of a Sociological Theory of Religion* (Anchor Books, 1990); and Robert C. Neville, ed., *The Human Condition: A Volume in the Comparative Religious Ideas Project* (Albany: SUNY Press, 2001).

29 The Dalai Lama has been one of the most public figures calling for such a shift. See H.H. the Dalai Lama, *Ethics for the New Millennium* (New York: Riverhead Trade, 2001) and *The Universe in a Single Atom: The Convergence of Science and Spirituality* (New York: Broadway, 2006).

30 For a recent account, see Ingolf U. Dalferth, "Post-secular Society: Christianity and the Dialectics of the Secular," *Journal of the American Academy of Religion* 78, no. 2 (2010): 317-345.

31 H.H. the Dalai Lama, *Towards a True Kinship of Faiths* (New York: Doubleday, 2010).

32 Amartya Sen, *The Argumentative Indian* (New York: Farrar, Straus, and Giroux, 2005), 21. He furthermore quotes the famous Indian Buddhist king Ashoka: "As Ashoka put it in the third century BCE: 'concord, therefore, is meritorious, to wit, hearkening and hearkening *willingly* to the Law of Piety as accepted by other people.' The form as well as the interpretation and understanding of secularism in India can be linked to the history of the acceptance of heterodoxy" (22).

33 For one recent vocal critic, see Stanley Fish, “Are There Secular Reasons?” *New York Times*, February 22, 2010, <http://opinionator.blogs.nytimes.com/2010/02/22/are-there-secular-reasons/?ref=global-home>.

34 H.H. the Dalai Lama, *Ethics of the New Millenium*, 22: “I believe there is an important distinction to be made between religion and spirituality. Religion I take to be concerned with faith in the claims to salvation of one faith tradition or another, an aspect of which is acceptance of some form of metaphysical or supernatural reality, including perhaps an idea of heaven or nirvana. Connected with this are religious teachings or dogma, ritual, prayer, and so on. Spirituality I take to be concerned with those qualities of the human spirit—such as love and compassion, patience, tolerance, forgiveness, contentment, a sense of responsibility, a sense of harmony—which bring happiness to both self and others. While ritual and prayer, along with questions of nirvana and salvation, are directly connected to religious faith, these inner qualities need not be, however. There is thus no reason why the individual should not develop them, even to a high degree, without recourse to any religious or metaphysical belief system. This is why I sometimes say that religion is something we can perhaps do without. What we cannot do without are these basic spiritual qualities.”

35 George Lindbeck, *The Nature of Doctrine: Religion and Theology in a Postliberal Age* (Philadelphia: Westminster Press, 1984).

36 For example, Clifford Geertz, “Religion as a Cultural System,” in *Anthropological Approaches to the Study of Religion*, ed. Michael Banton (London: Tavistock Publications, 1966), 1-46; and Pascal Boyer, *Religion Explained: The Evolutionary Origins of Religious Thought* (New York: Basic Books, 2001).

37 For a full treatment of the idea of “secular ethics,” see H.H. the Dalai Lama, *Ethics for the New Millenium*.

38 Bo Vinnerljung, “Suicide Attempts and Severe Psychiatric Morbidity among Former Child Welfare Clients—a National Cohort Study.” *Journal of Child Psychology and Psychiatry* 47, no. 7 (2006): 723-33.

39 Joseph A. Durlak and Roger P. Weissberg, “The Impact of After School Programs That Promote Personal and Social Skills,” Collaborative for Academic, Social, and Emotional Learning (CASEL), 2007.

40 Thupten Jinpa, *Mind Training: The Great Collection* (Somerville, MA: Wisdom Publications, 2006), 1-2.

41 Research on neuroplasticity suggests that attention is a key factor in creating new neural pathways and strengthening established ones. For highly readable accounts surveying this research, see Sharon Begley, *Train Your Mind, Change Your Brain* (New York: Ballantine Books, 2007); and Norman Doidge, *The Brain that Changes Itself* (New York: Viking, 2007).

42 Geshe Lobsang Tenzin Negi, *Compassion Meditation Protocol*. (unpublished handbook, August, 2009), 4.

43 Jinpa, *Mind Training*, 359. The single source, here, is a self-centered perspective that ignores the needs

of others. When elaborated, we would say that some of the specific new perspectives that *lojong* offers, all of which are incorporated into the CBCT program, include the following: (1) experiences of suffering and happiness do not just depend on external stimuli but on internal mental states (which cause immediate experiences of well-being or suffering when they arise, and which also propel concordant actions that are helpful or harmful to oneself and others, leading to future happiness or suffering); (2) increased freedom from destructive emotions therefore results in increased happiness and less suffering, both in the short-term (due to not experiencing the destructive emotions) and in the long-term (due to not experiencing the results of harmful actions taken when under the power of destructive emotions); (3) emotions and other mental states are not permanent but change momentarily and can be transformed with practice; (4) a strong determination to free oneself from negative emotions helps one to achieve this; (5) in wanting happiness and to be free from suffering, we and all other beings are alike; (6) we depend on others for everything we enjoy and exist in a web of interdependence with others and the world; (7) recognizing our sameness with others and how we benefit from them decreases the illusion of distance we feel and leads to gratitude and affection; (8) affection should be impartial/unbiased towards others, since bias is ultimately unjustified and does not benefit even those we prefer/loved ones; (9) when we combine insight into suffering (1-2) and closeness and affection to others (7-8) we recognize that others are suffering and naturally wish for them to be happy, which is wishing compassion; (10) when this is strengthened it becomes aspiring compassion (May they be free from suffering); (11) when this is supplemented by taking responsibility for others and becomes active, this becomes engaged compassion (I will do whatever I can to alleviate their suffering).

44 See Negi, *Compassion*, 2-3.

45 As the Dalai Lama notes in a dialogue with the psychologist Paul Ekman, “What is more crucial for the practice of compassion is the other type [of lovingkindness]. It is translated as a sense of *connectedness*, a sense of endearment to others, where the idea is cultivating a state of mind that makes the sight of others’ suffering unbearable to you. Cultivation of that is the crucial component of compassion. It is said that the stronger this sense of connectedness, the greater your feeling of unbearableness when you see others suffer. . . . When you reach that state of mind, then others are seen almost as an extension of yourself, as part of you.” In H.H. the Dalai Lama and Paul Ekman, *Emotional Awareness: Overcoming the Obstacles to Psychological Balance and Compassion* (New York: Times Books, 2008), 163. One should be wary, however, of equating CBCT with a purely analytical or cognitive approach that does not employ affective states at all. Traditional *lojong* practices contain elements that evoke powerful affective states (for example, love and gratitude towards one’s mother) that are then extended out towards others, similar to contemporary lovingkindness (*metta*) styles of practice. These are also incorporated into CBCT.

46 J. Payton, R. P. Weissberg, J. A. Durlak, A. B. Dymnicki, R. D. Taylor, K. B. Schellinger, and M. Pachan, “The Positive Impact of Social and Emotional Learning for Kindergarten to Eighth-grade Students: Findings from Three Scientific Reviews,” CASEL, 2008.

47 We are aware that experiences at the Paideia School, which is a unique private school in the southeastern United States that employs a nontraditional pedagogical approach, may not necessarily translate to other

school environments. We intend to explore the program in other school environments, including public schools.

48 For a list of some important subcomponents, see note 34.

49 For example, children separated from their parents for their own protection (i.e., from bombing) during World War II showed higher rates of depression, anxiety, and heart disease as adults than did children who remained with their mothers and were subjected to wartime hostilities. Remarkably, studies in animals show that infants will voluntarily withstand significant physical pain to remain in contact with their mothers, consistent with a phenomenon in human children known as abusive attachment that is frequently seen in foster children. A. K. Pesonen, K. Räikkönen, K. Heinonen, E. Kajantie, T. Forsén, and J. G. Eriksson, “Depressive Symptoms in Adults Separated from Their Parents as Children: A Natural Experiment During World War II,” *American Journal of Epidemiology* 166, no. 10 (2007): 1126-1133.

50 “Subjectivity” is a decidedly complex term with varied usage across disciplines. Here, we employ it in a way most closely aligned with recent anthropological discourse by figures such as Tanya Luhrmann, Sherry Ortner, Joao Biehl, and Arthur Kleinman. Subjectivity is now being investigated with greater interest in anthropology, and, as Biehl et al. note, “Once the door to the study of subjectivity is open, anthropology and its practitioners must find new ways to engage particularities of affect, cognition, moral responsibility, and action.” Joao Biehl, Byron Good, and Arthur Kleinman, *Subjectivity: Ethnographic Investigations* (Berkeley: University of California Press, 2007), 1. Contemplative practices such as CBCT clearly provide a rich field for the study of subjectivity and for the transformation of subjectivity. As Biehl et al. write, “By attending to subjectivity in ethnographic terms and in comparative social analysis, we encounter the concrete constellations in which people forge and foreclose their lives around what is most at stake. Examination of the complex ways in which people’s inner states reflect lived experience within everyday worlds as well as within temporary spaces and transitions—moments of crisis and states of exception—can disturb and enlarge presumed understandings of what is socially possible and desirable. What is life for? What is an adequate life? Such study also helps us understand what psychological processes are about” (Ibid., 5). See also Tanya Luhrmann, “Subjectivity,” *Anthropological Theory*, 6 (2006): 345-361; and Sherry B. Ortner, “Subjectivity and Cultural Critique,” *Anthropological Theory*, 5 (2005): 31-52. For more on this usage of subjectivity and its connection with the study of contemplative practices, see Chikako Ozawa-de Silva and Brendan Ozawa-de Silva, “Secularizing Religious Practices: A Study of Subjectivity and Existential Transformation in Naikan Therapy,” *Journal for the Scientific Study of Religion* 49, no. 1 (2010): 147–161.

51 Although fully articulating this model lies beyond the scope of the present article, it is based on the inhibition and enhancement effects created by interactions between cognition, affect, and body activity. These effects are summarized in an excellent and readable way in Lawrence W. Barsalou, Paula M. Niedenthal, Aron K. Barbey, and Jennifer A. Ruppert, “Social Embodiment,” *The Psychology of Learning and Motivation* 43 (2003): 43-92. The model of embodied cognitive logics draws upon this work and expands upon it in two ways: by applying it to contemplative practices and by exploring the ways a single complex embodied cognitive-affective state may strengthen or inhibit a subsequent state. For example, how

reflecting deeply upon what others have given oneself (as in the case of Naikan practice) triggers feelings of gratitude and the wish to return something to those others and increases a sense of closeness and affection to those others (Ozawa-de Silva and Ozawa-de Silva, “Secularizing Religious Practices”). It is therefore built on a key assumption that would benefit from empirical study: that the low-level and typically unconscious processing interactions between affect, cognition, and body states seen in social embodiment studies will also play a role in higher cognition and the types of phenomena of interest to scholars of religious practices and religious ritual. It is of course a basic tenet of most embodied theories of cognition (such as Barsalou’s) that higher cognition is not entirely set apart from lower-level modality-specific processing. For related work on embodied cognition that bears relevance to humanities and the social sciences, see George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago: University of Chicago Press, 1980); Andy Clark, *Supersizing the Mind* (Oxford: Oxford University Press, 2008); and Edward G. Slingerland, *What Science Offers the Humanities: Integrating Body and Culture* (Cambridge: Cambridge University Press, 2008).

52 Although not yet contained in his written works to our knowledge, the authors have heard the Dalai Lama mention this threefold division on numerous occasions in the past few years. See, for example, “His Holiness the Dalai Lama Encourages Buddhism-Science Dialogues,” TibetCustom, August 15, 2010, <http://www.tibetcustom.com/article.php/20100517090621970>).

53 The Dalai Lama often identifies this particular empirically-minded, investigative, and scholarly strain of the Buddhist tradition as the “Nalanda tradition,” a reference to the ancient Indian Buddhist university of Nalanda, which housed many of the exemplars of this tradition.

54 History, the Dalai Lama seems to argue, is full of examples of knowledge being taken from one tradition and made use of in another.

55 See Ozawa-de Silva and Ozawa-de Silva, “Secularizing Religious Practices”; and Chikako Ozawa-de Silva, “Demystifying Japanese Therapy: An Analysis of Naikan and the Ajase Complex through Buddhist Thought,” *Ethos* 35, no. 4 (2007): 411-446.

56 The emerging research on moral emotions is promising, however. See Walter Sinnott-Armstrong, ed., *Moral Psychology*, 3 vols. (Cambridge, Mass: MIT Press, 2008) as well as Robert A Emmons, *Thanks! How the New Science of Gratitude Can Make You Happier* (Boston: Houghton Mifflin, 2007).

57 As Slingerland writes, “neither postmodernism nor existentialism would deny human physical commonalities. What they *do* deny, though, is the existence of human commonalities at the level of meaning—human bodies as inert physical objects may be subject to a common set of laws, but this has little to do with the lived world of human significance. It is this latter world that is culturally constructed . . . and despite vague animal preferences for cereal over cardboard or cherries over stones, it is this constructed world of human mediated experience that is all that we are really in touch with.” Edward Slingerland, “The Study of Religion in the Age of Cognitive Science,” *Journal of the American Academy of Religion* 76, no. 2 (2008): 381.

58 Critics of secularized meditation programs may contend that these practices are ineffective when stripped of their religious, or in many cases, Buddhist context. That may be true if they define “effective” as meeting the specific religious goals set out by the tradition in question. That is hardly ever the measure of efficacy being used to judge these practices in the scientific study of contemplative practices. There is also no doubt that despite being secular, these programs are being delivered with an implicit ethical framework. That is indeed inescapable, but that framework, as this article argues, does not need to rest on a religious foundation.

59 See Jean Vanier, *Community and Growth* (London: Darton, Longman and Todd, 1979).

Issues of modernization of education, attracting high pedagogical technologies in teaching, computerization of educational process. Types of speech activities (speaking, listening, reading, writing) is formed in the process of teaching a foreign language in schools and universities. Psychological bases of activity approach in teaching highlights the works of L.S. Vygotsky, A.N. Leontiev, S.L. Rubinstein, P.Y. Galperin, D.B. Elkonin: general theory of activity, the theory of thought and expression activities. This method which has shown its effectiveness in practical teaching activities and does not find a corresponding reflection in the most foreign textbooks: lexical and grammatical lesson is not repeated but is not fixed in the next lesson. Practical education is way more interactive than theoretical. It does not involve just teaching and lecturing irrespective of whether the student is able to understand the concepts or not. Theoretical education usually employs teachers who teach in a plain manner or books which may or may not include interactive exercises. Whereas in practical works, inputs from students are not just invited but are also necessary. Interactive sessions, experiments, interactive exercises, are important features of practical education which ensure the involvement of students, making them learn and understand mo