

Summary

111 annotations on 8 pages by helenkennett

x111

The Practices

Practices that are being used in college classrooms include mindfulness, concentration, open awareness, and sustaining contradictions.

Mindfulness. Surely the most widely used classroom contemplative practice is *mindfulness*. Mindfulness is a Western invention, although based in the contemplative traditions of Asia. It consists of moment-to-moment, nonjudgmental awareness and is most commonly applied to the breath. One gently rests one's attention on the breath and maintains attention

#1

p.2

ing thought of emotion and returns one's attention to the breath, again and again. Counting can be an aid to maintaining attention on the breath. With each exhale, one counts up to ten (1, 2, 3, ... 10; 1, 2, 3, ...).

If mindfulness is the most commonly used classroom practice, then **mindfulness-based stress reduction (MBSR)** is the most thoroughly researched. In a recent count of National Institutes of Health research projects, I found that 150 concerned mindfulness and the funds allocated were over \$150 million in 2011 alone. Two studies that are relevant to the classroom context concern stress reduction in premedical students and medical

#2

p.2

premedical students taking physics, about half of the students are already somewhat familiar with mindfulness and they are all quite open to instruction, glad to have a means of dealing with the great stress they feel to perform at the top of the class.

Concentration. A related practice is *concentration* training. Here the object of attention may be the breath or indeed any simple object. I use the paperclip. Attention is placed on the paperclip with much more focus and intent than is characteristic of mindfulness. One carefully examines, for example, the paperclip's form, color, material composition, stiffness, and texture. All of one's powers of observation and thought are directed to the paperclip, its function and method of manufacture. As before if a distraction arises, it is released and the attention is redirected swiftly and firmly to

#3

p.3

education. In his *Principles of Psychology* (James 1890/1950, 424) he would declare:

The faculty of voluntarily bringing back a wandering attention, over and over again, is the very root of judgment, character and will. An education which should improve this faculty would be the education *par excellence*. But it is easier to define this ideal than to give practical instructions for bringing it about.

Much of contemplative pedagogy is concerned precisely with giving practical instruction for improving the faculty of attention.

#4

p.3

Much of contemplative pedagogy is concerned precisely with giving practical instruction for improving the faculty of attention.

Open Awareness. Concentration represents one pole of a pair in attention training. Its partner is called *open monitoring* or *open awareness*. According to Lutz (2008, 163), there are two types of meditation:

[Our research] focuses on the mental processes and the underlying neural circuitry that are critically involved in two styles of meditation. One style, Focused Attention (FA) meditation, entails the voluntary focusing of attention on a chosen object. The other style, Open Monitoring (OM) meditation, involves non-reactive monitoring of the content of experience from moment to moment.

In my work with students, I have found it invaluable to introduce them to both types of practice, FA and OM.

#5

p.3

both types of practice, FA and OM.

Open awareness is often experienced as the space of creativity, in contrast to concentration, which is useful in making specific sense observations or performing extended discursive reasoning. Scholars of creativity and insight distinguish four phases to the creative process (Sternberg and Davidson 1995). The first is *mental preparation*, which consists in

NEW DIRECTIONS FOR TEACHING AND LEARNING • DOI: 10.1002/41

#6

p.3

86 CONTEMPLATIVE STUDIES IN HIGHER EDUCATION

confronting the paradox or contradiction at the root of the problem in a serious and sustained way (FA). The second phase is *incubation*, during which time one moves between active struggle with the problem (FA) and disengagement (OM). The third phase is *illumination*, at which moment a flash of insight appears, one that must then be grounded or held. The final phase is *verification*. After all, insights can be mistaken and so need to be checked against reality.

In her book *Gravity and Grace*, Simone Weil (2002, 10) writes of the "grace" that is associated with an original insight or moment of creativity; she insists that "grace enters empty spaces," and "it can only enter where there is a void to receive it." The familiar pole of study and concentrated mastery of a discipline must be complemented by a gracious openness

#7

p.4

Such exercises are common to various contemplative traditions, as described in my book, *Meditation as Contemplative Inquiry* (Zajonc 2009, 93–106).

Sustaining Contradictions. A particularly demanding but useful exercise for the imagination is what my colleague Joel Upton and I call "sustaining contradiction." Rather than seek to resolve contradiction, it is often better to maintain and even intensify the experience of how two opposites can be true at the same time. Nicholas of Cusa (1453/2007, 53) called these "the coincidence of opposites"; the physicist Neils Bohr (2006) declared that the opposite of one great truth might very well be

#8

p.4

classroom situation, I guide my students through the following *point-circle* exercise:

Begin by mentally visualizing a blue circle. This in itself may take some practice. With it vividly before your mind's eye, reduce the size of the blue circle until it becomes a point, and then expand the point again until it becomes a circle of the original size. Repeat this until the transformation from circle to point and back again is fluid.

Now replace the blue circle with a circle of the opposite color—yellow. Repeat by reducing and increasing the size of the yellow circle until, as for the blue circle, the movement between point and circle is fluid.

We now bring the two elements together and practice "sustaining contradictions" or what Nicolas of Cusa called "the coincidence of opposites." Visualize a yellow point at the center of a blue circle. Simultaneously expand the yellow point into a large yellow circle and decrease the size of the blue circle until it becomes a blue point. Expand and contract the oppositely colored circles at the same time. Watch especially as they pass through one another. Repeat this exercise, and then describe the experience.

In art, science, and life, we are often asked to sustain what appear to be impossible polarities. In quantum physics, wave-particle duality is such a

#9

p.5

The Deeper Significance of Knowing

When she was once asked "What is evil?" the Burmese leader and Nobel Peace Prize laureate Aung San Suu Kyi echoed Plato saying, "I don't think that there is such a thing as evil, but I think there is such a thing as ignorance and the root of all evil is ignorance" (I. Suvanjiel, personal communication, August 28, 1995).

Aung San Suu Kyi was, of course, thinking of the teachings of the Buddha. For example in the *Gotama Discourse* or *Sutta*; *Sayuttanikaya* 3.1.10. See *Find the Buddha* (2007, 40) available at <http://www.dhammadownload.com>

#10

p.7

derive from ignorance, and so if we are able to achieve true learning, by the cultivation of complete attentiveness, we are able to penetrate insight, and full comprehension, then evil and suffering will cease. Everything else is a half-measure and a provisional solution. Aung San Suu Kyi (1995, 183–184) had it right when evaluating the true basis for social transformation:

The quintessential revolution is that of the spirit, born of an intellectual conviction of the need for change in those mental attitudes and values which shape the course of a nation's development. A revolution which aims merely at changing official policies and institutions with a view to an improvement in material conditions has little chance of genuine success. Without a revolution of the spirit, the forces which produced the iniquities of the old order would continue to be operative, posing a constant threat to the process of reform and regeneration. It is not enough merely to call for freedom, democracy and human rights. There has to be a united determination to persevere in the struggle, to make sacrifices in the name of enduring truths, to resist the corrupting influences of desire, ill will, ignorance and fear.

If I speak my heart, the depth of change called for in higher education is comparable to that called for here by Aung San Suu Kyi. The quintessential

#11

p.8

CONTEMPLATIVE PEDAGOGY: A QUIET REVOLUTION IN HIGHER EDUCATION 91

conventional form of knowing and precisely here is where the revolution is needed. I have argued for an "epistemology of love" (Zajonc 2006) that embodies and practices respect, gentleness, intimacy, vulnerability, participation, and transformation, the formation of new capacities, and the practice of insight. In other words, I am advocating for a contemplative as well as a critical intellectual education, one that seeks a comprehensive and deep understanding of self and world. Suffering and evil will fall away only when we have attained such understanding and achieved the cessation of the deep ignorance of which Plato and the Buddha were speaking.

#12

p.9

The Quiet Contemplative Revolution

The contemplative pedagogy previously described is one that strives for complete attentiveness; it seeks to achieve penetrative insight and the full comprehension that dispels ignorance. And so, when we take up the task of contemplative pedagogy as an essential, indeed as the essential feature of an integrative higher education, we are engaged in a revolutionary enterprise. We are not attempting a simple add-on or an alternative. Instead, we are declaring that change, growth, and transformation of the human being are the hallmarks of genuine education. I understand the cultivation of "complete attentiveness" to be the practice of an epistemology of love with all that that entails. Goethe (1998) reminds us that our every act of real attention shapes us. We attend, the world forms us ... and so on cyclically. In this way, attentiveness works back on us as formation.

The wisdom or full comprehension that arises as the fruit of contemplative pedagogy is not a remote, abstract, intellectual knowledge, but a

#13

p.9

this way, attentiveness works back on us as formation.

The wisdom or full comprehension that arises as the fruit of contemplative pedagogy is not a remote, abstract, intellectual knowledge, but a form of beholding (*theoria*) that is fully embodied, which means that it entails aesthetic and moral dimensions as well as cognitive ones. The revolution in higher education asks for nothing less than an integrative form of knowing. In my view, there is no better way of practicing for such beholding-knowing, for such penetrating and comprehensive wisdom, than contemplative pedagogy. It manifests and embodies the epistemology of love in its right practices. Through it, we are drawn into the world, into suffering and unease, into the other, and not distanced from them by objectification, and subsequent control.

Nor is this a sterile form of knowing disconnected from the practical demands of life. No, not at all. The insights attained at the hand of contemplative

#14

p.9

students are like Siddhartha before enlightenment (which is to say before freedom) or like Plato before he met Socrates. I imagine them teaching in the sacred groves as well as the marketplace. They are crafting for themselves and their time a pedagogy where love becomes a way of knowing. Have you every truly known anything that you did not love? In Goethe's (1998, 69) words again, "One comes to know nothing beyond what one loves. And the deeper and more complete the knowledge, the stronger, more powerful and living must be one's love and fervor." The gentleness, intimacy, and transformation of us and those we teach are inconceivable apart from the power of love.

As I see it, the revolution called for in higher education will bring love into teaching and learning, not as a romantic sentiment but as the most profound form of knowing by identification. The object becomes subject, and through the highest and most refined form of love, we are able to identify with and know from the inside that which we have only known from without. Recall Emerson's essay *The Poet* (1844/1982, 274) in which we find the characterization of imagination.

#15

p.10

8

Around the world a quiet revolution is unfolding in teaching and learning through the introduction of contemplative practices in higher education. Several practices are described and their value assessed.

Contemplative Pedagogy: A Quiet Revolution in Higher Education

Arthur Zajonc

During the last fifteen years a quiet pedagogical revolution has taken place in colleges, universities, and community colleges across the United States and increasingly around the world. Often flying under the name “contemplative pedagogy,” it offers to its practitioners a wide range of educational methods that support the development of student attention, emotional balance, empathetic connection, compassion, and altruistic behavior, while also providing new pedagogical techniques that support creativity and the learning of course content. This movement is being advanced by thousands of professors, academic administrators, and student life professionals, many of whom are part of the new Association for Contemplative Mind in Higher Education (www.acmhe.edu), which itself is part of the Center for Contemplative Mind in Society (www.contemplativemind.org).

Since 1997 the academic program of the Center for Contemplative Mind in Society has been working with professors and university administrators, developing the field of contemplative pedagogy. Each year through conferences, summer programs, retreats, campus visits, and online resources, the center has supported faculty in making their curricula and pedagogical methods more reflective and contemplative. In collaboration with the American Council of Learned Societies, the center has awarded 158 Contemplative Practice Fellowships to professors in every type of academic institution to support the development of academic courses that incorporate contemplative practices (Craig 2011). Founded in 2009, the Association for Contemplative Mind in Higher Education is a professional

association that allows colleagues from colleges and universities around the world to interact with each other and share their writings and ideas. The center also commissioned a review of the research into contemplative pedagogy relevant to higher education (Shapiro, Brown, and Astin 2011).

Nearly every area of higher and professional education from poetry to biology and from medicine to law is now being taught with contemplative exercises. Appreciation of secular contemplative exercises for stress reduction (Shapiro, Schwartz, and Bonner 1998) is growing fast as is the acknowledgment of their value for general capacity building (such as strengthening attention or cultivating emotional balance), as well as for mastery of course material. For example, the contemplative practice of “beholding” in art history and compassion practices for game theoretical experiments in economics are both being taught by professors at Amherst College.

Contemplative pedagogy serves several educational goals. Research shows that contemplative practice, even if performed for short periods, improves attention (Jha 2007; Tang et al. 2007), cognition (Zeidan 2010), and cognitive flexibility (Moore 2009). At Stanford University James Doty (2012) has established the Center for Compassion and Altruism Research and Education, whose research shows that compassion can be strengthened. In the pages that follow, I give a brief overview of the kinds of practices being used as part of classroom instruction.

The Practices

Practices that are being used in college classrooms include mindfulness, concentration, open awareness, and sustaining contradictions.

Mindfulness. Surely the most widely used classroom contemplative practice is *mindfulness*. Mindfulness is a Western invention, although based in the contemplative traditions of Asia. It consists of moment-to-moment, nonjudgmental awareness and is most commonly applied to the breath. One gently rests one’s attention on the breath and maintains attention undistracted on the breath for several minutes. If one’s attention wanders, which it invariably does, then without judgment one sets aside the distracting thought or emotion and returns one’s attention to the breath, again and again. Counting can be an aid to maintaining attention on the breath. With each exhale, one counts up to ten (1, 2, 3, . . . 10; 1, 2, 3, . . .).

If mindfulness is the most commonly used classroom practice, then **mindfulness-based stress reduction (MBSR)** is the most thoroughly researched. In a recent count of National Institutes of Health research projects, I found that 150 concerned mindfulness and the funds allocated were over \$150 million in 2011 alone. Two studies that are relevant to the classroom context concern stress reduction in premedical students and medical students (Rosenzweig 2003; Shapiro, Schwartz, and Bonner 1998). Both show that MBSR succeeds in reducing stress in students according

to various measures used. In my own experience teaching mindfulness to premedical students taking physics, about half of the students are already somewhat familiar with mindfulness and they are all quite open to instruction, glad to have a means of dealing with the great stress they feel to perform at the top of the class.

Concentration. A related practice is *concentration* training. Here the object of attention may be the breath or indeed any simple object. I use the paperclip. Attention is placed on the paperclip with much more focus and intent than is characteristic of mindfulness. One carefully examines, for example, the paperclip's form, color, material composition, stiffness, and texture. All of one's powers of observation and thought are directed to the paperclip, its function and method of manufacture. As before if a distraction arises, it is released and the attention is redirected swiftly and firmly to the object of attention. This is a more disciplined and directed practice than mindfulness. The founder of scientific psychology, William James, saw in the cultivation of sustained, voluntary attention the cornerstone of a true education. In his *Principles of Psychology* (James 1890/1950, 424) he would declare:

The faculty of voluntarily bringing back a wandering attention, over and over again, is the very root of judgment, character and will. An education which should improve this faculty would be *the education par excellence*. But it is easier to define this ideal than to give practical instructions for bringing it about.

Much of contemplative pedagogy is concerned precisely with giving practical instruction for improving the faculty of attention.

Open Awareness. Concentration represents one pole of a pair in attention training. Its partner is called *open monitoring* or *open awareness*. According to Lutz (2008, 163), there are two types of meditation:

[Our research] focuses on the mental processes and the underlying neural circuitry that are critically involved in two styles of meditation. One style, Focused Attention (FA) meditation, entails the voluntary focusing of attention on a chosen object. The other style, Open Monitoring (OM) meditation, involves non-reactive monitoring of the content of experience from moment to moment.

In my work with students, I have found it invaluable to introduce them to both types of practice, FA and OM.

Open awareness is often experienced as the space of creativity, in contrast to concentration, which is useful in making specific sense observations or performing extended discursive reasoning. Scholars of creativity and insight distinguish four phases to the creative process (Sternberg and Davidson 1995). The first is *mental preparation*, which consists in

confronting the paradox or contradiction at the root of the problem in a serious and sustained way (FA). The second phase is *incubation*, during which time one moves between active struggle with the problem (FA) and disengagement (OM). The third phase is *illumination*, at which moment a flash of insight appears, one that must then be grounded or held. The final phase is *verification*. After all, insights can be mistaken and so need to be checked against reality.

In her book *Gravity and Grace*, Simone Weil (2002, 10) writes of the “grace” that is associated with an original insight or moment of creativity; she insists that “grace enters empty spaces,” and “it can only enter where there is a void to receive it.” The familiar pole of study and concentrated mastery of a discipline must be complemented by a spacious open awareness for the full round of creativity to find its home in us. Whether it is William Rowan Hamilton’s discovery of the multiplication law for quaternions while crossing the Broom Bridge in Dublin, or Poincaré’s discovery of the transformation laws defining non-Euclidean geometry and Fuchsian groups while stepping up onto a bus, the pole of concentrated work on a problem must be complemented by that of open awareness.

I routinely use “The 4-Part Bell Sound Practice” (Zajonc n.d.) to demonstrate the archetypal movement between focused attention and open awareness. It consists of:

Focused Attention (FA)

1. Sound the bell: students concentrate on the sound of the bell.
2. Resounding the bell sound in memory: students concentrate on the sound of the bell in memory.

Open Awareness or Open Monitoring (OM)

3. Release or “letting go”: students let go of both the bell sound and any memory of it that they may have, and enter into open nondirected awareness.
4. Receiving or “letting come”: students remain receptive but without expectation, allowing thoughts, feelings, images, and so forth to arise in the open space of their awareness.

Such exercises are common to various contemplative traditions, as described in my book, *Meditation as Contemplative Inquiry* (Zajonc 2009, 93–106).

Sustaining Contradictions. A particularly demanding but useful exercise for the imagination is what my colleague Joel Upton and I call “sustaining contradiction.” Rather than seek to resolve contradiction, it is often better to maintain and even intensify the experience of how two opposites can be true at the same time. Nicholas of Cusa (1453/2007, 53) called these “the coincidence of opposites”; the physicist Neils Bohr (2006) declared that the opposite of one great truth might very well be

another great truth. In quantum physics, such contradictions appear to abound. No drama can hope to work without an irresolvable dilemma. In a classroom situation, I guide my students through the following *point-circle* exercise:

Begin by mentally visualizing a blue circle. This in itself may take some practice. With it vividly before your mind's eye, reduce the size of the blue circle until it becomes a point, and then expand the point again until it becomes a circle of the original size. Repeat this until the transformation from circle to point and back again is fluid.

Now replace the blue circle with a circle of the opposite color—yellow. Repeat by reducing and increasing the size of the yellow circle until, as for the blue circle, the movement between point and circle is fluid.

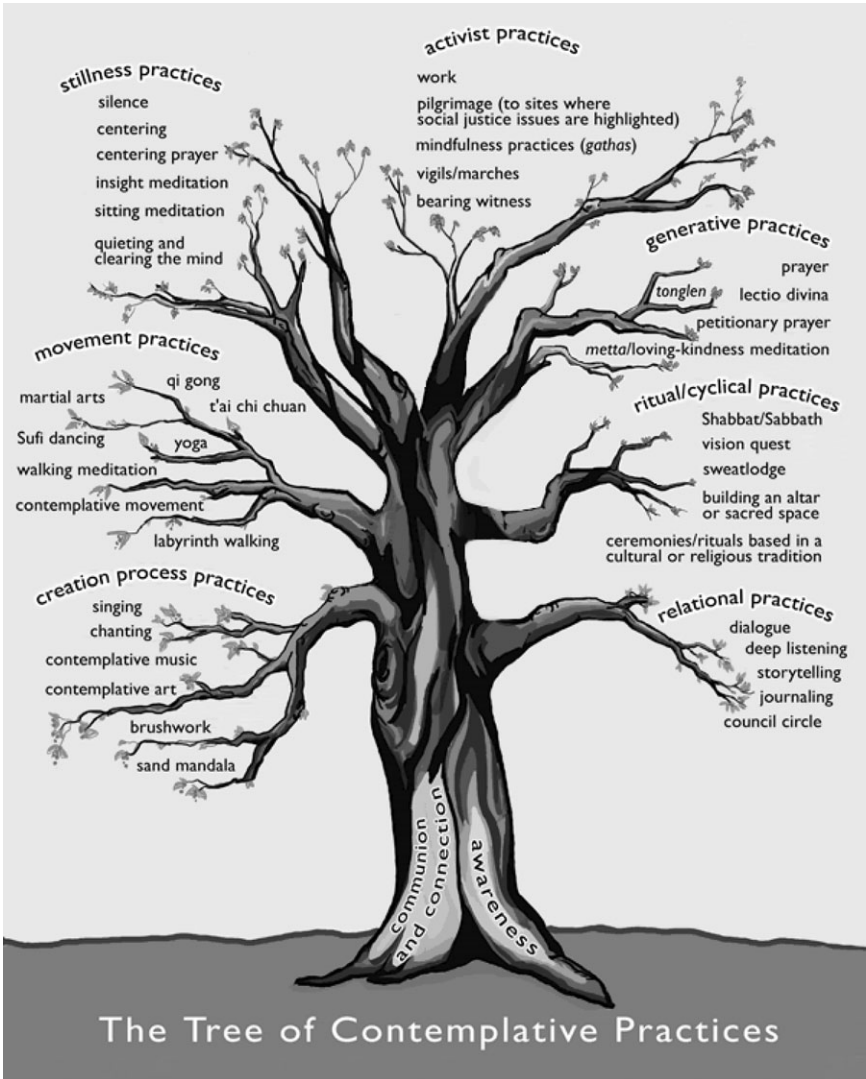
We now bring the two elements together and practice “sustaining contradictions” or what Nicolas of Cusa called “the coincidence of opposites.” Visualize a yellow point at the center of a blue circle. Simultaneously expand the yellow point into a large yellow circle and decrease the size of the blue circle until it becomes a blue point. Expand and contract the oppositely colored circles at the same time. Watch especially as they pass through one another. Repeat this exercise, and then describe the experience.

In art, science, and life, we are often asked to sustain what appear to be impossible polarities. In quantum physics, wave-particle duality is such a case. Much of the drama of life arises through the coincidence of opposites.

These contemplative exercises all have their own merit, but in my case they form a key pedagogical component relating clearly to the *content* of the course I teach with Upton on “Eros and Insight.” For instance Upton as art historian is deeply concerned with polarities and tensions in the painting we study, whereas I am concerned with the paradoxes of modern physics that will not resolve. In both cases the coincidence of opposites is part of the structure of the material being taught. Rather than leave them as distance abstractions, the *point-circle* exercise helps students live into opposites. In this sense, contemplative pedagogy is a form of experiential learning.

The practices being used by faculty are far more numerous than those previously mentioned. “The Tree of Contemplative Practices” (Figure 8.1) taken from the website of the Center for Contemplative Mind in Society gives an overview of the many practices available for use. Deep listening, *lectio divina*, contemplative movement (yoga, tai chi, etc.), contemplative writing, loving-kindness, and walking meditation are but a few of the more common contemplative exercises that are finding their way into the classroom. Student life professionals and counselors are finding MBSR and related contemplative methods of enormous value in working with distressed students. Additional resources can be found on the website for the

Figure 8.1. The Tree of Contemplative Practices



the Center for Contemplative Mind in Society
www.contemplativemind.org

Center for Contemplative Mind in Society (www.contemplativemind.org) and also in *Meditation as Contemplative Inquiry* (Zajonc 2009).

Transformative Education

The theory of education that underlies contemplative pedagogy is one that presumes that the capacities of sustained voluntary attention, emotional

balance, insight, and compassion are able to be developed through practice. Through attention to an object or area of research, capacities suited to insight concerning that object or area are formed. Goethe (1982, 38), the German poet, summarizes my view of pedagogical theory when he writes, “Every new object, well-contemplated, opens a new organ in us.” Whether the object is a painting or an equation, a natural phenomenon or an inner-city community, the attention we give to it forms in us the capacities that allow us to understand that to which we are attending. The fact of neuroplasticity now gives a neurological foundation to Goethe’s insight (Begley 2007). Thus we can see how contemplative pedagogy deepens experience through repeated engagement and so leads students to gradually foster those capacities for insight that will aid them in the true understanding of the content of their studies and perhaps even assist in the precious moment of discovery.

In these few pages I have only given the barest outline of the practice of contemplative pedagogy. Its potential significance as part of an integrative pedagogy in higher education has been more fully developed in *The Heart of Higher Education* written together with my friend Parker Palmer (Palmer and Zajonc 2010). These views are challenge enough for higher education, but if I am allowed to voice my larger hopes for higher education I may turn to and take my direction from the line often attributed to Plato, “Ignorance, the root and stem of all evil.”

The Deeper Significance of Knowing

When she was once asked “What is evil?” the Burmese leader and Nobel Peace Prize laureate Aung San Suu Kyi echoed Plato saying, “I don’t think that there is such a thing as evil, but I think there is such a thing as ignorance and the root of all evil is ignorance” (I. Suvanji Jeff, personal communication, August 28, 1995).

Aung San Suu Kyi was, of course, thinking of the teachings of the Buddha. For example in the Gotama Discourse or Sutta; Sayuttanikāya 2.1.10, we find the Buddha (2007, 40) recalling:

Before my awakening, when I was still an aspirant to awakening and not yet a fully awakened person, it occurred to me: How troubled is this world! . . .
And people understand but little about the escape from unease or suffering.
When will an escape from this unease/suffering be understood?

Having posed this question to himself, the Buddha then describes how he entered into a state of “complete attentiveness” through which he came to “penetrating insights” and “full comprehension.” In this way, complete attentiveness led the Buddha to a chain of penetrative insights and a full comprehension of the source of all suffering, namely that the root of all human suffering is ignorance. (The second Noble Truth: the source of

suffering is craving that in turn is rooted in ignorance.) Thus, the cessation of suffering rests ultimately on the eradication of ignorance.

Education has as its high purpose the eradication of ignorance, which, according to the views of Aung San Suu Kyi, Plato, and the Buddha, will affect the eradication of evil and so end suffering. In this way, a true education that addresses the whole human being reaches far beyond the conventional goods of learning, such as an informed citizenry or an intelligent workforce. No, our very suffering is rooted in ignorance concerning ourselves and the true nature of our world. Evil thrives on the delusions that derive from ignorance, and so if we are able to achieve true learning, by the cultivation of complete attentiveness, penetrative insight, and full comprehension, then evil and suffering will cease. Everything else is a half-measure and a provisional solution. Aung San Suu Kyi (1995, 183–184) had it right when evaluating the true basis for social transformation:

The quintessential revolution is that of the spirit, born of an intellectual conviction of the need for change in those mental attitudes and values which shape the course of a nation's development. A revolution which aims merely at changing official policies and institutions with a view to an improvement in material conditions has little chance of genuine success. Without a revolution of the spirit, the forces which produced the iniquities of the old order would continue to be operative, posing a constant threat to the process of reform and regeneration. It is not enough merely to call for freedom, democracy and human rights. There has to be a united determination to persevere in the struggle, to make sacrifices in the name of enduring truths, to resist the corrupting influences of desire, ill will, ignorance and fear.

If I speak my heart, the depth of change called for in higher education is comparable to that called for here by Aung San Suu Kyi. The quintessential revolution in higher education will likewise not be one that is concerned with the “improvement of material conditions” but a “revolution of the spirit” that changes mental attitudes and values.

Look around at America's greatest universities and colleges; many offer every material support and benefit for learning. Is the pursuit of improvement in material conditions of faculty and student life sufficient? We cannot rest content with changes in “official policies” or institutional reform, as important as these may be. As Aung San Suu Kyi says, unless we find a deeper, more comprehensive basis for change, what she calls, “a revolution of the spirit,” the old order will reassert itself constantly undermining whatever good we do. What then is the revolution in spirit in higher education?

I see the called-for change in higher education as a revolution in what we take to be knowing and knowledge, in our very epistemology, methodology, and concept of comprehension. To echo the view of Parker Palmer (Palmer and Zajonc 2010), there is today a kind of violence to our

conventional form of knowing and precisely here is where the revolution is needed. I have argued for an “epistemology of love” (Zajonc 2006) that embodies and practices respect, gentleness, intimacy, vulnerability, participation, transformation, the formation of new capacities, and the practice of insight. In other words, I am advocating for a contemplative as well as a critical intellectual education, one that seeks a comprehensive and deep understanding of self and world. Suffering and evil will fall away only when we have attained such understanding and achieved the cessation of the deep ignorance of which Plato and the Buddha were speaking.

The Quiet Contemplative Revolution

The contemplative pedagogy previously described is one that strives for complete attentiveness; it seeks to achieve penetrative insight and the full comprehension that dispels ignorance. And so, when we take up the task of contemplative pedagogy as an essential, indeed as *the* essential feature of an integrative higher education, we are engaged in a revolutionary enterprise. We are not attempting a simple add-on or an alternative. Instead, we are declaring that change, growth, and transformation of the human being are the hallmarks of genuine education. I understand the cultivation of “complete attentiveness” to be the practice of an epistemology of love with all that that entails. Goethe (1998) reminds us that our every act of real attention shapes us. We attend, the world forms us . . . and so on cyclically. In this way, attentiveness works back on us as formation.

The wisdom or full comprehension that arises as the fruit of contemplative pedagogy is not a remote, abstract, intellectual knowledge, but a form of beholding (*theoria*) that is fully embodied, which means that it entails aesthetic and moral dimensions as well as cognitive ones. The revolution in higher education asks for nothing less than an integrative form of knowing. In my view, there is no better way of practicing for such beholding-knowing, for such penetrating and comprehensive wisdom, than contemplative pedagogy. It manifests and embodies the epistemology of love in its right practices. Through it, we are drawn into the world, into suffering and unease into the other and not distanced from them by objectification, and subsequent control.

Nor is this a sterile form of knowing disconnected from the practical demands of life. No, not at all. The insights attained at the hand of contemplative inquiry are actionable. Education will change, as will medicine, agriculture, our financial institutions, and environmental policies. Every aspect of life can be changed by the light of contemplative insight into who we are really. Indeed, all of the good, the creative dimensions of life already flow from this source; we merely raise it to consciousness, develop the means to practice it more fully, and honor it through our attention.

The “revolution of spirit” I am suggesting is already under way. Those who are already teaching and developing contemplative pedagogy with our

students are like Siddhartha before enlightenment (which is to say before freedom) or like Plato before he met Socrates. I imagine them teaching in the sacred groves as well as the marketplace. They are crafting for themselves and their time a pedagogy where love becomes a way of knowing. Have you every truly known anything that you did not love? In Goethe's (1998, 69) words again, "One comes to know nothing beyond what one loves. And the deeper and more complete the knowledge, the stronger, more powerful and living must be one's love and fervor." The gentleness, intimacy, and transformation of us and those we teach are inconceivable apart from the power of love.

As I see it, the revolution called for in higher education will bring love into teaching and learning, not as a romantic sentiment but as the most profound form of knowing by identification. The object becomes subject, and through the highest and most refined form of love, we are able to identify with and know from the inside that which we have only known from without. Recall Emerson's essay *The Poet* (1844/1982, 274) in which we find the characterization of imagination.

This insight, which expresses itself by what is called Imagination, is a very high sort of seeing, which does not come by study, but by the intellect being where and what it sees, by sharing the path, or circuit of things through forms, and so making them translucent to others. The path of things is silent. Will they suffer a speaker to go with them? A spy they will not suffer; a lover, a poet, is the transcendency of their own nature—him they will suffer. The condition of true naming, on the poet's part, is his resigning himself to the divine aura which breathes through forms, and accompanying that.

Our work will take time, so patience as well as persistence is needed. As Aung San Suu Kyi (1995, 183) reminds us, "There has to be a united determination to persevere in the struggle, to make sacrifices in the name of enduring truths, to resist the corrupting influences of desire, ill will, ignorance and fear." So, if the interest in contemplative pedagogy is perhaps not yet as great as one would wish for, remember that the class size was initially five for the Buddha and not much more for Socrates, both of whom persevered in the struggle to dispel ignorance until the end. Let us commit to the cessation of ignorance, not through the accumulation of inert facts but by playing the poet's part, by "being where and what we see," and thereby practicing true naming, which I take to be attained by complete attention, penetrative insight, and full comprehension, which is to say by an epistemology of love.

The Ethic, Epistemology, and Ontology of Our Teaching

Our teaching is the expression of an ethic. What is the educational ethic that you wish to embody in your teaching? How can your deepest peda-

gical ethics be more present, more fully a part of your work with students and colleagues?

As teachers we have committed ourselves to knowledge, but what *kind* of knowing will dispel ignorance and end suffering and even evil? Inert ideas, as Alfred North Whitehead (1967) calls them, will not serve, will not dispel ignorance. Only a “penetrative insight” will do. Our epistemology, our way of knowing, rests on our ethics. *Complete attention* does embody our ethics, which to me should mean our selfless, gentle, loving attention. Only then will *penetrating insight* be given.

Full comprehension means that we understand the world from the inside as well as the outside, through Emersonian imagination as well as through reason and observation. Then will the truncated ontology of contemporary intellectual life be expanded to include the rich, multidimensional nature of reality, of self, and of the world. Fully comprehended, we will have taken a step along the path to the cessation of ignorance, real ignorance, and so to the cessation of suffering and evil.

A more robust and complete ontology investigated by a broad range of methods, and a more inclusive ethics that gets beyond cost benefit should be the foundation of an integrative form of higher education (Palmer and Zajonc 2010). Contemplative pedagogy is a crucial part of that larger vision of higher education.

References

- Begley, S. 2007. *Train Your Mind, Change Your Brain: How a New Science Reveals Our Extraordinary Potential to Transform Ourselves*. New York: Ballantine.
- Bohr, N. 2006. *The Niels Bohr Collected Works*. Vol. 12, *Popularization and People (1911–1962)*. Amsterdam: Elsevier.
- Buddha. 2007. “Gotama Discourse or Sutta; Sayuttanikāya 2.1.10.” In *Basic Teachings of the Buddha*, edited by G. Wallis, 40–44. New York: Modern Library.
- Craig, B. 2011. *Contemplative Practice in Higher Education*. The Center for Contemplative Mind in Society. <http://www.contemplativemind.org/archives/785>.
- Doty, J. 2012. *The Place for Compassion in a Modern Age*. Center for Compassion and Altruism Research and Education webcast. <http://www.ccare.stanford.edu/videos/the-place-for-compassion-in-a-modern-age-james-doty>.
- Emerson, R. W. 1844/1982. “The Poet.” In *Ralph Waldo Emerson: Selected Essays*, edited by L. Ziff, 259–284. New York: Penguin.
- Goethe, J. W. 1982. In *Goethes Werke*, edited by E. Trunz. Translated by A. Zajonc. Munich: C. H. Beck.
- Goethe, J. W. 1998. In *Trost bei Goethe*, edited by H. Tieck, 69. Translated by A. Zajonc. Munich: Langer Mueller.
- James, W. 1890/1950. *The Principles of Psychology*. New York: Dover Publications.
- Jha, A. P. 2007. “Mindfulness Meditation Modifies Subsystems of Attention.” *Cognitive Affective Behavioral Neuroscience* 7(2): 109–119.
- Kyi, A. S. 1995. *Freedom from Fear, and Other Writings*. London: Penguin Group.
- Lutz, A. H. 2008. “Attention Regulation and Monitoring in Meditation.” *Trends in Cognitive Science* 12(4): 163–169.
- Moore, A. 2009. “Meditation, Mindfulness and Cognitive Flexibility.” *Consciousness and Cognition* 18(1): 176–186.

- Nicholas of Cusa. 1453/2007. *The Vision of God*. Translated by E. G. Salter. New York: Cosimo.
- Palmer, P. J., and A. Zajonc, with M. Scribner. 2010. *The Heart of Higher Education: A Call to Renewal*. San Francisco: Jossey Bass.
- Rosenzweig, S. R. 2003. "Mindfulness-Based Stress Reduction Lowers Psychological Distress in Medical Students." *Teaching and Learning in Medicine* 15: 88–92.
- Shapiro, S. L., K. Brown, and J. Astin. 2011. "Toward the Integration of Meditation into Higher Education. A Review of Research Evidence." *Teachers College Record* 113(3): 493–528.
- Shapiro, S. L., G. E. Schwartz, and G. Bonner. 1998. "Effects of Mindfulness-Based Stress Reduction on Medical and Premedical Students." *Journal of Behavioral Medicine* 21(6): 581–599.
- Sternberg, R. J., and J. Davidson, eds. 1995. *The Nature of Insight*. Cambridge, Mass.: The MIT Press.
- Tang, Y-Y., Y. Ma, J. Wang, Y. Fan, S. Feng, Q. Lu, Q. Yu, et al. 2007. "Short Term Meditation Training Improves Attention and Self-Regulation." *Proceedings of National Academy of Sciences* 104: 17152–17156.
- The Tree of Contemplative Practices*. n.d. The Center for Contemplative Mind in Society. <http://www.contemplativemind.org/practices/tree>.
- Weil, S. 2002. *Gravity and Grace*. Translated by E. Crawford and M. von der Ruhr. New York: Routledge.
- Whitehead, A. N. 1967. *The Aims of Education*. New York: Free Press.
- Zajonc, A. 2006. "Love and Knowledge: Recovering the Heart of Learning through Contemplation." *Teachers College Record* 108(9): 1742–1759.
- Zajonc, A. 2009. *Meditation as Contemplative Inquiry: When Knowing Becomes Love*. Great Barrington, Mass.: Lindisfarne Books.
- Zajonc, A. n.d. *The 4-Part Bell Sound Practice*. The Center for Contemplative Mind in Society. Audio recording. http://www.contemplativemind.org/audio/AZ-Four_Part_Bell_Sound.mp3.
- Zeidan, F. 2010. "Mindfulness Meditation Improves Cognition: Evidence of Brief Mental Training." *Consciousness and Cognition* 19: 597–605.

ARTHUR ZAJONC is president of the Mind & Life Institute, and was professor of physics at Amherst College from 1978 to 2012. For more information see www.arthurzajonc.org.