Against Cognitive Imperialism

A Call for a Non-Ethnocentric Approach to Cognitive Science and Religious Studies¹

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Abstract: The author argues that a theocentic perspective based in the Abrahamic traditions persists in biasing the study of religion among Western scholars. In particular, he points out first that Buddhism and the indigenous Chinese religions do not have as their central focus a supernatural agent, and second that these religions presuppose that religious assertions can be verified through each individual's subjective experience. One result of the bias persisting among Western scholars is that contemplative traditions and the subjective data of mystical experience are only infrequently the subject of serious study in academic departments of religion, which tend to favor the work of theologians, sociologists and historians. Professor Roth, a Daoism specialist and professor of religion at Brown University, concludes by describing Brown's recently founded program in Contemplative Studies, which aims to restore balance to the study of religion.

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1. Unreflective Ethnocentrism and Cognitive Imperialism

In a widely circulated cover article in the *New York Times Sunday Magazine* of March 4, 2007, entitled "Darwin's God," the author, Robin Marantz Henig, asked the apparently scientific question:

In the world of evolutionary biology, the question is not whether God exists but why we believe in him. Is belief a helpful adaptation or an evolutionary accident?

It is implied in the question, and it becomes apparent in the article, that Henig and her sources (anthropologist Scot Atran and others)

assume that all human beings throughout time and across cultures have believed in God. Indeed, she writes:

According to anthropologists, religions that share certain supernatural features—belief in a noncorporeal God or gods, belief in the afterlife, belief in the ability of prayer or ritual to change the course of human events—are found in virtually every culture on earth.²

She further asserts:

These scholars [scientists studying the evolution of religion] tend to agree on one point: that religious belief is an outgrowth of brain architecture that evolved during early human history. What they disagree about is why a tendency to believe evolved, whether it was because belief itself was adaptive, or because it was just an evolutionary byproduct, a mere consequence of some other adaptation in the evolution of the human brain.

"In other words," she writes, in an appropriately condescending manner as befits her own (and many others') belief system:

Which is the better biological explanation for a belief in God—evolutionary adaptation or neurological accident?"³

To answer this question, I would pose another: Which is the better explanation for a modern scientist's entirely unsubstantiated assumption that all human beings believe in God—neurological accident, or deeply ingrained and unreflective ethnocentrism? In assuming that Judeo-Christo-Islamic (Abrahamic) beliefs are not just a product of our own Western civilizations but in some form are universal for all *Homo sapiens*, Henig and her scientific sources are falling into the same trap that has bedeviled Western assumptions about religion since, for example, the Jesuit missionaries landed in China in 1574—a trap that is well typified by the comments of one of the fathers of the field of the academic study of religion (which developed out of liberal Protestant theology). Writing in 1951 Joachim Wach baldly stated:

There can be no "godless" religion, and only a misunderstanding can make Buddhism and Confucianism into such. Buddhism and Jainism may have started as criticisms of the traditional or of any positive characterization of Ultimate Reality, but they soon developed into genuine religions.⁴

Wach was a pioneer in the history of religions and a founding member of the Department of Religious Studies at Brown University. He strove mightily to free the academic study of religion from Christian theological influences. Yet in this quotation and throughout his book *The Comparative Study of Religion*, he makes an essentially theological assumption: that "genuine religions" must see God as the Ultimate Reality.

This kind of unreflective ethnocentrism is understandable—although not at all justifiable—in someone thinking and writing almost seven decades ago. That it still persists in subtle forms among scholars of religion and in grosser forms among the scientists whose work is reviewed in the *New York Times Sunday Magazine* clearly indicates how, for modern Westerners, our religious upbringing—the ways in which we have been brought up to understand religions, whether we embrace them or reject them—is still deeply entrenched within our own everyday perspectives. Clearly, the academic study of religion has failed to make much of a dent in our cultural assumptions on the topic, and I would attribute that failure to the field's inability to free itself from these very culturally defined categories of religion—in other words, to our own "unreflective ethnocentrism," and to our obsession with arguing with one another from within it.

Popular and influential studies of religion by social scientists are unfortunately confined within these very limited understandings of religion as well. The anthropologist of religion Pascal Boyer is characteristic of these approaches, and his understanding of religion is quite compatible with that of Scott Atran. Boyer, who purports to "explain religion" using the lens of cognitive science, argues that *all* religions contain "supernatural notions" —including notions of

a variety of artifacts, animals, persons, plants: concepts of floating islands of mountains that digest food.... These are found in folktales and correspond to a small catalogue of templates for supernatural concepts. We also find that a particular subset of these concepts is associated with more serious commitment, strong emotions, important rituals, and/or moral understandings. An association between a supernatural concept and one or several of these social effects is our main intuitive criterion for what is religious.⁶

Here and elsewhere in his writings, Boyer assumes that "supernatural concepts" are one of the essential defining characteristics of religion and that these are caused directly by specific cognitive templates. They include anthropomorphic ideas about God or gods, including intentional agency—and, further, he goes so far as to assert, they are *never* based on actual experience. He writes:

It is also striking that the details of such representations [of supernatural agents' actions in the world] are generally derived not from what one has experienced but rather of what others have said. People take their information about the features of \dots gods, to an overwhelming extent, from socially transmitted information, not direct experience.⁷

Arguing from observations of relatively primitive cultures, Boyer extends them to all religions and includes in his purview all Christian beliefs about the nature of God, which he considers to be the supernatural agent par excellence. He never once stops to consider that there are religious traditions that put absolutely no stock in anything supernatural. Nor does he seem to know that some traditions derive their concepts and understanding of the functioning of consciousness completely empirically, grounded in experience—experience that is direct and that can be proven again and again by contemplatives and "contemplative scientists" who follow the same procedures of working in the common laboratory of their own consciousnesses.

The entire concept of "supernatural beings" and "supernatural agency" is drawn from worldviews that seek causes for natural events in forces or powers that cannot be perceived within the natural world. The classical Christian notions of an anthropomorphic God, the creator separated from creation by an unbridgeable gulf, certainly fit this model, as Boyer points out. However, in his unreflective ethnocentrism, Boyer demonstrates that he is completely unaware that in some of the major contemplative traditions of the non-Western world, such as foundational Daoism and Confucianism in China and Theravada Buddhism in South Asia, supernatural powers or forces are either absent or play a relatively insignificant role.9 The Daoist Dao (Way) is very much a force inherent in the universe; it is certainly not supernatural. The Theravada concept of no-self (anatta) is not even a force: it is a mode of cognition. It can be argued that the foundational Confucian tradition, too, contains no supernatural powers: its concept of tian (usually translated as "heaven"), is, like the Daoist Dao, clearly subject to natural laws. 10 As Henry Rosemont Jr. has unequivocally stated, these three traditions simply do not presume the existence of a transcendent, supernatural realm:

No such metaphysical claims invest Buddhist, Confucian or Daoist texts as I read them, and while these latter religions, and all others, have supernatural entities described in their oral or written canons, these entities remain altogether linked to the world.¹¹

Clearly, Boyer, Atran and anthropologists and cognitive scientists who have proposed reductive attempts to explain religion by reference to evolutionary processes are working with models of religion heavily influenced by their own personal cultural experiences. They demonstrate no awareness that the Asian contemplative traditions pose an exception to their universal assumptions about religion. Thus their unreflective ethnocentrism has led them to restrict their sources to religions that fit into the accepted cognitive models of their own European religious traditions. Their deep commitment to these cognitive models is troubling at best and leads to bad science at worst. This is first of the issues I wish to address in this discussion.

There is a second, related issue that is just as deeply entrenched and unreflective. It is the assumption that our European religious conceptions—together with our philosophical and now scientific conceptions—of human experience contain the only possible veridical models. Thus any tradition that posits veridical cognition that does not fall within these models is ipso facto false and delusional. There are a number of key beliefs associated with this assumption. One is that human experience cannot possibly occur that is not totally conditioned by preexisting cognitive categories. This position is forcefully stated by Steven Katz in his influential essay "Language, Epistemology, and Mysticism":

Let me state the single epistemological assumption that has exercised my thinking and which has forced me to undertake the present investigation: There are no pure (i.e., unmediated) experiences. Neither mystical experience nor more ordinary forms of experience give any indication, or any grounds for believing, that they are unmediated.... This epistemological fact seems to me to be true, because of the sorts of beings we are. 12

Yet mystical traditions the world over argue that it is only when these mediating cognitive categories are stripped away that genuine intuitive knowledge and clear cognition can begin to develop, yielding experience that is truly noetic, as William James put it. ¹³ Katz, of course, never attempts to explain why, if all mystical experiences in their entirety are culturally mediated, mystics the world over concur in asserting that these experiences are ineffable. Katz's arrogant position thus rests on the assumption that he, as a modern European child of the Enlightenment, understands more about what the world's great mystics have experienced than those mystics themselves. This is a form of the ethnocentric hubris that is characteristic of the European imperialists who once dominated the world in the name of their cultural superiority. Katz's view is thus one example of an epistemologically blinkered attitude that I would like to call "cognitive imperialism."

The ultimate implication of this attitude for the study of religion and human cognitive possibilities is far reaching; namely, that mystical experience cannot be veridical. Nor, for that matter, can any subjective experience, which, after all, can only be a product the preexisting categories. Thus, in this view, our subjective experience can tell us nothing new and nothing true about the world because we can only cognize the world through the categories imprinted within us by our historical and cultural context. Subjective experience, in this view, is relative and individualistic and has no claims to truth that anyone else must take seriously. Religious experience only tells us what our religion already knows, so there is absolutely no point in trying to understand or assess it, because it yields no genuine "objective" knowledge about the world. In departments of religious studies throughout North America, this has led to a profound lack of interest in religious experience—for William James the very essence of religion—and to a shift in scholarship in the field not just to historical research but to historicism, the approach to critical study that asserts that a text can only be understood as a product of the social, historical and political forces of its time.

2. Historicist Reductionism: The Reigning Paradigm in the Study of Religion

Unreflective ethnocentrism, and its concomitant cognitive imperialism, then, not only reach deeply into the fields of anthropology and the cognitive sciences but also have become prominent features of the academic study of religion in North America. As we approach the second decade of the twenty-first century, the field of religious studies has gradually moved away from its origins in Christian theology and has gone through a number of developmental phases. During the first, the field separated its mission from that of the chaplaincy, and during the second, it introduced what one scholar has called the "historical-scientific-philosophical study of religions committed to an underlying ideal of detached objectivity and value-neutral inquiry."14 To a considerable extent, historical and social scientific studies have gradually come to dominate research and teaching in North American religious studies departments. For example, the recent publications of one U.S. university's department of religious studies include the following topics: "Israelite Interment Ideology"; "Women's Religions among Pagans"; "Olfactory Imagination in Ancient Christianity"; "Letter Writing in Greco-Roman Antiquity" and "Jewish Piety in Antiquity."

Lest this one example seem idiosyncratic, let us examine the list of monographs published during the last decade by the American Academy of Religion, the professional association for the field. Therein titles such as the following predominate: "Crossing the Ethnic Divide: The Multiethnic Church on a Mission"; "Daoist Monastic Manual: A Translation of the Fengdao Kejie"; "History of the Buddha's Relic Shrine"; "Making Magic: Religion, Magic and Science in the Modern World"; and "Moses in America: The Cultural Uses of Biblical Narrative." Such historical and sociological studies dominate the AAR's list of publications, together with such theological studies in the Abrahamic traditions as these: "Intersecting Pathways: Modern Jewish Theologians in Conversation with Christianity"; "Opting for the Margins: Postmodernity and Liberation in Christian Theology"; and "Feminist Theology and Christian Realism."

In the academic journals and other publications that concentrate exclusively on the religious traditions of Asia we find a similar emphasis on historical and social scientific studies—although, of course, publications on theology are absent. For example, among the articles published in the 2005 and 2004 issues of the *Journal of Chinese Religions* we find the following topics: "A Cultural History of Muslims in Late Imperial China";

"Prehistoric Images of Women from the North China Region: the Origins of Chinese Goddess Worship?"; and "Fame and Fortune: Popular Religion and Moral Capital in Szechuan." Among the books reviewed were these: Pilgrimages to Mount Tai in Late Imperial China; The Confucian Transformation of Popular Culture; and Religion in Modern Taiwan: Tradition and Innovation in a Changing Society. Only rarely are there reviews

Why this retreat from serious consideration of religious experience?

of books on philosophy. Two such books are Buddhist Phenomenology: A Philosophical Investigation of Yogacara Buddhism and the Ch'eng Wei-shih Lun and After Confucius: Studies in Early Chinese Philosophy.

I am not arguing here that historical and social scientific studies of the various religious traditions are not valuable. Far from it: they are extremely valuable in contextualizing religious experience and helping us to clarify differences between our own modern perspectives and those of the authors of ancient religious texts. In my own scholarship I have often done very detailed historical and text-historical studies of foundational Daoist religious and philosophical works. However, that such scholarship dominates the field provokes a deeper question: Why this almost total retreat from serious consideration of religious experience? Why has the role of subjective experience in religion been totally abandoned as a subject of academic study?

A partial explanation can be found in the historical development of the field of religious studies. The field emerged from liberal Protestant theology in the period immediately before and after World War II, and so in the early stages, the concerns of Christian theology predominated. The issues that were studied included the existence and nature of God, the balance between faith and reason, religious experience as source of information about the nature of God, miracles, and the importance of the historicity of Jesus in particular and of New Testament narratives in general. As the field gradually moved away from explicitly Christian theological concerns and towards an attempt to consider other religious traditions of the world on an equal footing, the field nonetheless continued to think about religion in the terms and categories of Christian theology. For example, the following conceptual categories still dominate approaches in the field: soteriology (how people are saved—note that this implies a Power that does the saving); metaphysics (a field of study which implies the existence of nonphysical, world-transcending supernatural power); ontology (which implicitly posits an ultimate Being in the world); and cosmogony (which implies that the universe had a unique and discrete beginning). Yet all of these concerns betray an Abrahamic—and, in particular, a Christian—worldview that was presumed to be universal. By contrast, for example in Chinese cosmogony, to quote the famous scholar of Chinese science Joseph Needham: "The world had always existed and always would and the point was to figure out not where it came from but how to live within it."16

To a great extent, the strong emphasis on historical and social-scientific models that now dominates the field of religious studies represents a forceful attempt to move the field away from Christian concerns and values and to develop a more neutral perspective from which to study all religions (although the Christian obsession with historicity persists, especially with regard to Jesus). Nonetheless, it is apparent that this attempt at value-neutrality has not been entirely successful, as I have attempted to explain. Despite this, popular critics of the field such as Russell McCutcheon have completely missed this point: they mistake historicism and reductionism for "critical method," entirely ignoring the unreflective ethnocentrism that undergirds these methodologies. McCutcheon focuses on dividing scholars in the field into two camps: "critics" (who have this presumed position of neutrality) and "caretakers" (essentially theologians in disguise who seek to prove the truths of religion in the guise of value neutrality).18 The only way to be critical, and hence "good," for McCutcheon is to treat religion and religious phenomena as objects which are to be analyzed according to "naturalistic"

historical and social contexts and which are thus devoid of epistemic value. For him, any *subjective* involvement in the actual practices and experiences of religion—even if it is explicitly for the purposes of better understanding the religious tradition—cannot escape active or tacit *faith* in the truths that the religious tradition espouses. Thus McCutcheon does not escape the cognitive imperialist assumptions of Atran and Boyer; his concept of religion is totally derived from Abrahamic traditions: it's all about faith, belief, God and the supernatural. This ignorance of the contemplative traditions of the non-Western world demonstrates the kind of continued shocking failure of so many scholars of religion—who put such a high value on contextualizing the religions they study—to contextualize themselves.

This failure at self-contextualization is particularly ironic for those who consider themselves critical scholars of religion, because much of their historical and social-scientific research is dominated by historicist agendas that assert that all aspects of religion—particularly the epistemic insights that derive from their practices—are totally determined by their historical and social context. According to this way of thought, religious experience must never, without exception, be studied from the insider, first-person perspective. That perspective is denied to scholars because, in this view, our only viable choice is to study religion from the outside in. Only its external qualities are available to us; only these outer aspects of religion are potentially veridical.

There is a series of related reasons for this historicist reductionism. There is space here only to mention them. Historicist reductionism is based on certain epistemological assumptions that derive from European thought, as it has descended from its two most influential figures, Descartes and Kant. From these two thinkers, an emphasis on the importance of rational thought and on the deep insinuation of categories of thought into every conceivable human experience has served as the intellectual support for the development of historicist and social-scientific approaches to the study of religion. In effect, these approaches constitute a set of "external studies" that only examine the "objectively observable" aspects of religions, such as their institutions, the interaction of their institutions with society, their internal power relations and so on. The effect is to exclude religious experience and human subjectivity from serious critical examination because they are internal. Yet it is precisely these internal experiences that for William James were the very heart of religion and that should still be the very heart of any serious approach to studying both religion and human cognition:

In one sense at least the personal religion will prove itself more fundamental than either theology or ecclesiasticism. Churches, when once established, live at second-hand upon tradition; but the founders of every church owed their power originally to the fact of their direct personal communion with the divine. Not only the superhuman founders, the Christ, the Buddha, Mahomet, but all originators of Christian sects have been in this case;—so personal religion should still seem the primordial thing, even to those who continued to esteem it incomplete.¹⁹

Thus for James the subjective religious experience of human beings (what he calls in the quotation above "personal religion") is the very essence of religion; yet it is seriously ignored in the modern academy. All this has far-reaching implications. By completely abandoning the subjectivity of religion as a serious topic of rational inquiry, we have abandoned the field entirely to religious practitioners, who may indeed place dogmatic faith in the truths of their religion as the primary article of practice. By turning our backs on the systematic exploration of religious subjectivity from the inside out, so to speak, we have also cut ourselves off from a valuable approach to the many problems of human existence. We have ignored a valuable source of empirical knowledge that has been well developed in the contemplative traditions of Asia, and we deny ourselves a potentially valuable method for studying these traditions.

I would argue that the very reason we have become so devoted to historicist approaches to religion is that we are still dominated by the cognitive imperialist bias. The limited view of human cognition that it entails developed from the struggles of the European Enlightenment and the split that arose therein between science and religion. Alan Wallace argues that this perspective had led to what he calls a kind of "metaphysical realism" that results in an "objectivist" view of the world whose principles are as follows:

- 1. The real world consists of mind-independent objects;
- 2. There is exactly one true and complete description of the way the world is;
- 3. Truth involves some sort of correspondence between an existing world and our description of it;²⁰
- 4. That it is not only possible but desirable for scientists and scholars to describe the world from the "God's-eye" viewpoint of a completely detached, objective and value-neutral observer.²¹

As Wallace has cogently argued, this is the foundation of the scientific materialism that so dominates our modern understandings of the world and ourselves. What is missing is precisely that subjectivity which is the

basis of all our experience of ourselves and the world. On the scientific level, human subjectivity is the source for all the conceptual models we develop to explain the underlying structures of the world in the physical sciences and the underlying structures of consciousness in the cognitive sciences. All scientific experimentation used to establish these underlying "truths" is also a product of human subjectivity. Thus, despite all the principles of experimental science that attempt to establish objective standards for research, they all, in the last analysis, are derived by human beings, and therefore they are grounded in human subjectivity. Because of our headlong quest for scientific certainty in an objectivist-materialist world, we have in general ignored this important foundation, and this is true not only for scientists but for scholars of religion as well.

Ruling out the systematic exploration of human subjectivity on the grounds that it is not a veridical epistemological source has given both scientific researchers and religion scholars a considerable amount of control over their subject matter and a rationale for their approach, yet at the same time it severely restricts it. If human cognition can be effectively reduced to the product of preexisting historical, social and political forces, then it can be valuable to study only as a product of these forces, and it provides no new insights in its own right. Yet the very history of human inventiveness flies in the face of this notion, for if people only experience what their culture imprints on them, how can anything new arise? Clearly something else must be going on. We cannot understand this something else without fully appreciating the importance of subjectivity.

Furthermore, by failing to explore human subjectivity, scholars of religion and cognitive scientists remain blind to the very personal, subjective, ethnocentric and cognitive imperialistic biases of their own approaches. Failing to contextualize their own methodological positions, they are very much reminiscent of those whom Nagarjuna criticizes for failing to apply emptiness to their own arguments: "Emptiness wrongly grasped utterly destroys the dumb-witted, like a snake picked up by the wrong end or a magical spell incanted backwards."²²

3. The Intersubjective Universe

The objectivist model of the universe that underlies the unreflective ethnocentrism and cognitive imperialism pervading the fields of cognitive science and religious studies is not without challenge, if we would only expand our vision to include non-Western sources. Alan Wallace, Francisco Varela and Evan Thompson have explored Buddhist visions of the universe and how these can inform the development of new models

in understanding how the subjective and objective perspectives can mutually inform one another in order to give a more accurate and more scientific vision of the world, and I will return to these a bit later. But first I wish to examine a cosmology of considerable antiquity that poses a serious challenge to European objectivism: the Chinese model proffered by the classical Daoist thinker Zhuangzi.

The Vision from Classical China

Zhuangzi, one of the foundational thinkers of the Daoist tradition, lived, taught and wrote around the year 300 B.C.E. If the arguably more famous Laozi analyses the Way—the force that interfuses all phenomena yet cannot be fully known as an object—from the position of a neutral observer, Zhuangzi does so from a position that is clearly enmeshed within the subjective.²³ Arguing that any "objectivist" position contradicts itself, Zhuangzi criticizes the philosophical schools of his day for affirming their own limited truths as if they were universal:

For there to be [objective standards of] true and false before they have formed in the human mind would be [as ridiculous as the Sophistic saying] "I go to [the state of] Yue today but I arrived yesterday." This would be crediting with existence what has no existence; and if you do that, even the mythological sage Yu could not understand you, and how can you expect to be understood by me?²⁴

The true nature of phenomena cannot be known from an independent, value-neutral position because there is no one perspective from which all agree on that truth. As Zhuangzi says,

If being so is inherent in a thing, if being acceptable [in debate] is inherent in a thing, then from no perspective would it not be so, from no perspective would it not be acceptable.²⁵

The reason for this is that our knowledge of that thing is always subjective and relational:

Without an other there is no self; without self there is no choosing one thing over another.²⁶

The problem for Zhuangzi is that we fail to recognize that *all* attempts to assert objective truths from a fixed standpoint are contingent and nonabsolute:

Saying is not just blowing breath; saying says something: the only trouble is that what it says is never fixated. Do we really say something? Or have we never said anything? If you think saying is different

from the chirping of fledglings, is there proof of the distinction? Or isn't there any proof? By what is the Way hidden that there should be a genuine or a false? By what is saying darkened, that sometimes we say that "this is true" and "that is false"? Wherever we walk, how can the Way be absent? Whatever the standpoint, how can a saying be labeled as false? The Way is hidden by the formation of the lesser, saying is darkened by its foliage and flower. And so we have statements that "this is true" and "that is false" each made by [the rival schools] of the Confucians and Mohists, by which what is true for one of them for the other is false, and what is false for one of them for the other is true. If you wish to affirm what they deny and deny what they affirm, the best means is Illumination.²⁷

Zhuangzi suggests here that there is a way to cognize the world from a perspective that is free of the limitations of the relativity of subjective truths:

What is It is also Other; what is Other is also It: There someone says "This is true, that's false" from one point of view; here we say "This is true, that's false" from another point of view. Are there really It and Other? Or really no It and Other? Where neither It nor Other finds its opposite is called the Axis of the Way. Once the axis is found at the center of the circle, there is no limit to responding with either, on the one hand, no limit to what is It and, on the other, no limit to what is not. Therefore I say: "The best means is Illumination." ²⁸

Once again Zhuangzi suggests another mode of cognizing the world using what he calls "illumination," the perspective that is identical to the perspective of the Way, a position that transforms the common rigid cognition from a fixed, self-affirming objectivist perspective to one that is able to shift with the constantly changing circumstances:

Therefore when fixated cognition picks out a stalk from a pillar, a hag from beautiful Xishi, things however peculiar and incongruous, the Way pervades and unifies them. As they divide they develop, as they develop they dissolve. All things whether developing or dissolving revert to being pervaded and unified. Only those who penetrate this know how to pervade and unify things. They do not use fixated cognition, but find temporary lodging places in [the transformations of] daily life. It is in daily life that they make use of this perspective. It is in making use of this perspective that they pervade things. It is in pervading things that they attain it. And when they attain it, they are almost there. Their flowing cognition comes to an end. It ends, and when it does, that of which we do not know what is so of it, we call the Way.²⁹

For Zhuangzi, the Way is directly apprehended and affirmed in the experience of dropping away all dualistic categories such as "so" and "not so," "It" and "Other." This affirmation is the basis of being able to cognize the world as it is, a complex interrelated series of constantly changing subject-object perspectives, a complex world not of independent objects (including oneself) that move around in empty space, but a complex world of interdependent multi-relational and completely mutable subjectivities. It is hence intersubjective in a profound way.

How can we reach this intersubjective perspective? Through the careful subjective deconstruction of our fixated ideas of the self, accomplished through the apophatic practices of what I have called "inner cultivation."30 For Zhuangzi, this includes such consciousness-altering practices as "sitting and forgetting," (described in the sixth chapter of the Zhuangzi); the "fasting of the mind," (described in Chapter Four); "putting the things we live on outside ourselves" (Chapter Six); "treating our self as other" (Chapter Two); and pervading and unifying (Chapter Two).³¹ These are elements of a contemplative practice that first involves an emptying out of the usual contents of consciousness—thoughts, feelings, perceptions—until a condition of "embodying" or being merged with the Way is realized. This is its "introvertive" mode done while sitting completely still. There is then a second resulting "extrovertive" mode, which is realized when the practitioner returns to activity in the dualistic world of subjects and objects, all the while understanding its fundamental intersubjectivity and retaining an awareness of how the Way pervades this world and one's own subjective experience. This is called many things in the Zhuangzi, including "letting both alternatives proceed," "finding things their point of rest on the Potter's wheel of Heaven," "flowing cognition (yinshi)," and, as in our passages above, "using illumination."

New Developments in Cognitive Science

There is a newly emerging movement in cognitive science that has broken free of Western epistemological biases and that asserts that human experience is fundamentally both embodied and intersubjective. Pioneered by the late cognitive neuroscientist Francisco Varela and his colleagues Eleanor Rosch and Evan Thompson, this approach describes an "enactive" approach to cognition, asserting that human cognition is fundamentally grounded in the subjective experience of our minds within a physical body and is hence both simultaneously subjective and objective. As Thompson states:

We propose as a name the term enactive to emphasize the growing conviction that cognition is not the representation of a pre-given world by a pre-given mind but is rather the enactment of a world and a mind on the basis of a history of the variety of actions that a being in the world performs.³²

Developed to counter the deliberate omission of lived subjective experience in theories of human cognition, this perspective draws upon the hermeneutic philosophies of Heidegger and Gadamer, who argue that cognition is embodied, in the sense that it depends on being in a world inseparable from our experience of our bodies, our language and our social history. As Varela and his colleagues state:

If we are forced to admit that cognition cannot be properly understood without common sense, and that common sense is none other than our bodily and social history, then the inevitable conclusion is that knower and known, mind and world, stand in relation to each other through mutual specification or dependent co-origination. If this critique is valid, then scientific progress in understanding cognition will not be forthcoming unless we start from a different basis from the idea of a pre-given world that exists "out there" and is internally recovered in a representation [in here].³³

In other words, human cognition is not at all a subjective representation of an objective world; it is, rather, the constantly shifting enactment of a myriad of worlds of experience that are context-interactive (simultaneously subjective and objective). Citing phenomenologists Merleau-Ponty and Husserl, Thompson further argues that our very self-identity has no meaning without "Otherness" being implicated in the very structure of our consciousness:

"I" and "other" are not simply co-relative and interchangeable, like the spatial perspectives of "here" and "there." . . . "I-ness" is already internally constituted by "otherness." Experience is intrinsically intersubjective in the sense that alterity and openness to the other are a priori characteristics of the formal structure of experience.³⁴

Wallace too supports this fundamental intersubjectivity as a primary insight into human experience developed by the tradition of Indo-Tibetan Buddhism:

The theme of intersubjectivity lies at the very core of the Indo-Tibetan Buddhist way of viewing the world.... According to this worldview, each person does exist as an individual, but the self... does not exist as

an independent ego that is somehow in control of the body and mind. Rather the individual is understood as a matrix of dependently related events, all of them in a state of flux....(1) The self arises in dependence on prior contributing causes and conditions.... In this way our existence is invariably intersubjective, for we exist in a causal nexus in which we are constantly influenced by, and exert influence upon, the world around us....(2) The individual self does not exist independently of the body and mind, but rather exists in reliance upon a myriad of physical and mental processes that are constantly changing. (3) The misperception of a fixed self arises from ignorance of these insights and through conceptual imputation.³⁵

For precisely these reasons, we cannot ignore human subjectivity by the intellectual trick of pretending that it doesn't exist or isn't relevant, as we find in the cognitive imperialist perspective. If we do this, we are living in what Zen master Jôshu Sasaki has called a "two-dimensional" world, one in which I appear to stand apart from a preexisting objective world affirming truths from my position of a fixed self, as if it were the only one possible. This seems to also have been well understood by Zhuangzi:

Is this [theory] acceptable? Yes it is. Is that [theory] unacceptable? Yes it is. A Way develops as we walk it; things become so by being called so. Why are they so? They are so from where they are so. Why are they not so? They are not so from where they are not so.... Therefore when someone with a fixated mode of cognition differentiates between a stalk and a pillar, a hag from a beauty, things however peculiar or incongruous, the Way pervades and unifies them.³⁶

In other words, from the ecstatic and illumined vision of Zhuangzi, none of the perspectives in the enacted world are anything more than relatively true to their own standpoints. One who is confined within such a standpoint has no way to see this. Only the sage who "sees right through," and whose embodiment of the Way has transformed her cognition from fixated to flowing, is able to know this and to respond without prejudice and attachment to any situation. The ability to do this is based upon the experience of embodying or merging with the Way, an experience in which the dualities of subject and object, and subject and subject, fall away. As we saw above, Zhuangzi asserts that when "flowing cognition comes to an end. . . . that of which we do not know what is so of it, we call the Way." 37

Varela and Thompson rely on Mādhyamika philosophy instead of on Daoism to deal with the nonreliance on either objectivity or subjectivity,

and they speak of the realization of the fundamental groundlessness of human experience and its concomitant awareness of empathy and compassion.³⁸ Working within the Dzogchen tradition of Tibetan Buddhism, Wallace's position is closer to that of Zhuangzi. He speaks of the training of consciousness through śamathā (meditative quiescence) so that

Discursive thoughts become dormant and all appearances of oneself, others, one's body and one's environment vanish as one attains experiential access to the relative ground-state of consciousness known as "substrate consciousness" (ālaya vijñāna) . . . a state of radiant clear consciousness that is the basis for the emergence of all appearances to an individual's mind stream. All phenomena appearing to sensory and mental perception are imbued with the innate luminosity of this substrate consciousness.³⁹

Each of these writers posits somewhat different sources for the intersubjective world: the Way, groundlessness and substrate consciousness. What is clear is that none of these are possible to conceive of, much less experience, if we remain trapped within the cognitive imperialist position. What is also clear is that the systematic training of consciousness through contemplative disciplines is a prerequisite for truly understanding and experiencing the role of the subjective in this intersubjective world. What Evan Thompson says about cognitive science is equally true of the study of contemplative experience in the major wisdom traditions of the world:

I believe that a mature science of mind would have to include disciplined first-person methods of investigating subjective experience in active partnership with the third-person bio-behavioral science. "First-person methods" are practices that increase an individual's sensitivity to his or her own experience through the systematic training of attention and self-regulation of emotion. This ability to attend reflexively to experience itself—to attend not simply to what one experiences (the object) but to how one experiences it (the act)—seems to be a uniquely human ability and mode of experience we do not share with other animals. *First-person methods for cultivating this ability are found primarily* in the contemplative wisdom traditions of human experience, especially Buddhism. Throughout history religion has provided the main home for contemplative experience and its theoretical articulation in philosophy and psychology.... Thus [religion is] a repository of firstperson methods that can play an active and creative role in scientific investigation itself.40

For Thompson and Wallace, this systematic training of the mind to investigate itself has been developed in the pan-Buddhist practices of śamathā and vipaśyanā, stopping and seeing, mental concentration and focused insight. I have argued that similar practices are present in foundational Daoism. Both Thompson and Wallace imply that these practices can be taken out of an exclusively monastic setting and used to develop what the latter calls a genuine "Contemplative Science." I would assert that we can do this as well in the sphere of religion.

A truly non-ethnocentric study of the contemplative experiences found in the world's religions would entail a number of things. The first is that we remain open-minded to them and do not a priori commit ourselves to the historicist reductionism that assumes that these experiences are epistemologically invalid. The second entails an admission of the fact that despite pretending to be objective and value-neutral, scholars of religion and human cognition have their own subjective biases that are deeply enmeshed in their cultural presuppositions about the nature of religion and in their own personal experience of it. This has everything to do with how we pursue the study of religion, the kinds of issues we select, and the arguments we attempt to prove.

It would be fascinating to hear from Boyer, Katz and McCutcheon just what their own actual *experience* of religion has been. I would suspect it is totally Eurocentric. Rather than pretend their intellectual positions are objective, these scholars owe their audiences a full and complete explanation of their own subjective influences. (In the interests of full disclosure, I myself was raised with both Reformed Jewish and Christian Scientist influences; embraced Freud, Camus and Sartre before college; began studying Confucianism, Daoism and Buddhism at university; and have since done serious practice in a number of Asian contemplative traditions: Hindu, Daoist and Buddhist, particularly in the tradition of Japanese Rinzai Zen.)

In addition to openly discussing the subjective factors that have influenced our attitudes toward the study of contemplative practices in religion, I would also recommend the pursuit of an approach that is, as Thompson suggests, both third-person and first-person. The historical and social-scientific study of religion constitutes the former, and systematic training in a contemplative tradition constitutes the latter. In effect, what I am calling for is nothing other than what former Berkeley professor Frits Staal called for more than three decades ago in his pioneering, but now unjustly overlooked, work *Exploring Mysticism*:

If mysticism is to be studied seriously, it should not merely be studied indirectly and from without, but also directly and from within. Mysticism can at least in part be regarded as something affecting the human mind, and it is therefore quite unreasonable to expect that it could be fruitfully studied by confining oneself to literature about or contributed by mystics, or to the behavior and physiological characteristics of mystics and their bodies. No one would willingly impose upon himself such artificial constraints when exploring other phenomena affecting or pertaining to the mind; he would not study perception only by analyzing reports of those who describe what they perceive, or by looking at what happens to people and their bodies when they are engaged in perceiving. What one would do when studying perception, in addition, if not first of all, is to observe and analyze one's own perceptions.⁴¹

It is my contention that contemplative experiences, all sorts of religious experiences, and human cognition itself, can most productively and accurately be studied only by this dual approach. Whether or not departments of the comparative study of religions in North American universities can sufficiently free themselves from the pernicious influences of unreflective ethnocentrism and cognitive imperialism to allow this kind of dual approach to be established remains to be seen. I, for one, remain very pessimistic about the open-mindedness of the entire field.

So what are we to do if we are interested in training contemplative scientists and religion scholars in the basic methods of contemplation? Can this training only be accomplished in a monastic setting? Or is there a way to bring it into the academy to enrich not just research but pedagogy?

4. The Field of Contemplative Studies

A new field of academic endeavor devoted to the critical study of contemplative states of experience is developing in North America. It focuses on the many ways human beings have found, across cultures and across time, to concentrate, broaden and deepen conscious awareness. Contemplative studies is the rubric under which this research and teaching can be organized. In the field of contemplative studies we attempt to:

- 1. Identify the varieties of contemplative experiences of which human beings are capable;
- 2. Find meaningful scientific explanations for them;
- 3. Cultivate first-person knowledge of them;
- 4. Critically assess their nature and significance.

That is, we study the underlying philosophy, psychology and phenomenology of human contemplative experience through a combination of traditional third-person approaches and more innovative, critical first-person approaches. In other words, we study contemplative experiences from the following perspectives:

- 1. Science, particularly psychology, neuroscience, cognitive science and clinical medicine;
- 2. The humanities, exploring the contemplative dimensions of literature, philosophy and religion;
- 3. The creative arts, focusing on the study of the role of contemplation in both the creation and the appreciation of the visual and fine arts, creative writing and in the various performing arts of dance, drama and music.

Central to this approach is the understanding that contemplative experiences are not confined exclusively to religion. While various methods to attain contemplative states of consciousness can most certainly be found in religious practices, such states can also be found in a wide variety of nonreligious practices, such as making or listening to music, dancing, acting, writing poetry or prose, painting, sculpting and even the intent observation of the natural world. Following the pioneering research on the state of optimal experience called "flow" by Mihalyi Csíkszentmihályi and his colleagues, ⁴² contemplative studies seeks to discover the complete range of experiences of attention, focus, tranquility and insight and to demonstrate that even the most profound of these experiences—those deliberately cultivated in the world's great contemplative traditions—are not of a fundamentally different kind than the most shallow. All occur on a continuous spectrum of experience that can be rationally identified, scientifically researched and subjectively experienced.

With regard to science, as the first major area of contemplative studies, there is now more than four decades' worth of scientific research into the nature of meditation and its cognitive impact. We can break down this research into four areas:

- 1. Clinical Applications: Meditation has been applied clinically most often by using Mindfulnes-Based Stress Reduction (MBSR) and has been studied by Jon Kabat-Zinn, Zindel Segal and Ruth Baer, among others. There are also the medical applications of Transcendental Meditation and the variant of it studied by Herbert Benson, as well as the application of yoga, qigong and taiji. 43
- 2. Cognitive Activity: This research, for example by Amishi Jha and

- Stephen Kosslyn, explores how meditation influences cognitive functioning in both advanced and beginning meditators.⁴⁴
- 3. Neurological Measurements: EEG and MRI research on both advanced and beginning meditators has been carried out by Richard Davidson, Jonathan Cohen and Clifford Sauron. 45
- 4. Positive Psychology, the scientific study of the strengths and virtues that enable individuals and communities to thrive, has developed in the past decade under the guidance of such researchers as Martin Seligman, Mihalyi Csíkszentmihályi, and Jonathan Haidt). 46

All these areas of study, taken together, might well be considered contemplative science, and Alan Wallace has detailed how we might best approach such a discipline. However, a full discussion of how third-person and first-person perspectives are blended in this category is well beyond what I can present here. I hope it will suffice to say that the best of these researchers do intimately combine these perspectives.

In the humanities, the second major area of contemplative studies, the focus has largely been on the study of the role of contemplation in philosophy (particularly phenomenology and philosophy of mind), in literature and in the comparative study of religion. Critical first-person methods are just beginning to be developed in the study of religion, and they are quite controversial. In this category I would include the course I have regularly taught at Brown University for eight years now. Entitled "The Theory and Practice of Buddhist Meditation," it includes both a regular weekly seminar of three hours and three one-hour "lab" sessions each week in which students try out meditation techniques that are directly related to the text we are reading in the seminars.⁴⁸

The third major area of contemplative studies is the creative arts. Here we explore the production of contemplative states of consciousness via the actual creation of art. For example, at our program in contemplative studies at Brown, we offer several classes in which students write their own poetry in class using cues and key words from their professor. We also teach a course on how the hearing of music affects the mind.

From the perspective of an educator, what is the point of all this?

- In general, it is to begin to give students a solid understanding—both third-person and first-person—of the range of the contemplative experiences that they may encounter in their lives: what these experiences are, how to understand them when they spontaneously occur, and how to deliberately cultivate them.
- 2. In particular, it is to give students practical training in a range of techniques to attain calmness, tranquility and attentional stability.

- 3. The attainment of states of calmness, tranquility and attentional stability and focus are important tools to use in:
 - Self-exploration and self-understanding. (If the purpose of a university education is "to know thyself," there is no better means to do so than through contemplative training.)
 - b. Developing a sound grasp of the nature of consciousness as a basis for further philosophical and scientific studies.
 - c. First-person approaches to the study of religion. Again, religious experience is essential to the study of religion, and it is my hope that we will someday create a generation of scholars who combine historical studies of religion with first-hand experience.

William James well understood the importance of this type of training:

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 directions for bringing it about.⁴⁹

We are finally reaching the point where James's pessimism about the existence of methods for training the attention can give way to a new optimism about incorporating these methods as essential tools of higher education. I firmly believe that to do so will significantly broaden our perspectives on the nature and structure of human experience, breaking us out of the objectivism and scientific materialism that has dominated the academy for far too long. If we can accomplish this, we will finally project ourselves past a world of knowledge dominated by unreflective ethnocentrism and cognitive imperialism and into a fuller appreciation of a world in which subjective and objective fields of experience, in all their varieties, are on an equal footing.

Notes

- 1. I wish to thank the following friends and colleagues for their invaluable critiques of earlier versions of this manuscript: Henry Rosemont Jr., Matthew Duperon, B. Alan Wallace, and Mark Cladis. None is, of course, responsible for any errors of omission and commission that remain in the work.
- 2. Robin Marantz Henig, "Darwin's God," New York Times Sunday Magazine, March 4, 2007, 39.
- 3. Ibid.
- 4, Joachim Wach, *The Comparative Study of Religions* (New York and London: Columbia University Press, 1958, paperback edition, 1961), 37.

- 5, Boyer's use of the term *supernatural notions* can only be described as deriving from common parlance. Neither in this article nor in his larger study, *Religion Explained*, does he attempt to provide a clear definition of this term. Of course, to a great extent it depends on how one defines what it means to be "natural." This has varied considerably in European religious and scientific thought, to say nothing of non-European philosophies. For the purposes of this study we shall also use *supernatural* as Boyer seems to: to refer to experiences, events, forces or beings that operate beyond what a society defines as "natural", that is, subject to the laws of nature. For the history of how such concepts led to the rise of scientific materialism in Europe, see B. Alan Wallace, *The Taboo of Subjectivity* (Oxford and New York: Oxford University Press, 2000) 41–56. For a study of these concepts in Christian theology, see Paul Draper, "God, Science, and Naturalism," in William Wainwright, ed., *The Oxford Handbook of Philosophy of Religion* (Oxford and New York: Oxford University Press, 2005), 272–303.
- 6. Pascal Boyer, "Gods and the Mental Instincts that Create Them," in James Proctor, ed., *Science, Religion, and the Human Experience* (Oxford and New York: Oxford University Press, 2005), 240.
- 7. Ibid., 244.
- 8. Ibid., 247.
- 9. There are, of course, important contemplative traditions in Christianity that Boyer ignores; whether or not they hold supernatural beliefs is a contentious issue beyond the scope of this article.
- 10. Over the years there has been a lively debate on whether or not this key Confucian concept can be understood within the confines of Abrahamic notions of natural/supernatural or transcendent/immanent. This debate is resumed in the pages of the superb *festschrift*, *Polishing the Chinese Mirror: Essays in Honor of Henry Rosemont Jr.*, ed. Ronnie Littlejohn and Marthe Chandler (New York: Global Scholarly Publications, 2008). See, in particular, Littlejohn's "Did Kongzi Teach Us How to Become Gods?" 188–211 and Rosemont's response, 382–8.
- 11. Henry Rosemont Jr., Rationality and Religious Experience: The Continuing Relevance of the World's Spiritual Traditions (LaSalle, IL: Open Court Press, 2001), 43.
- 12. Steven Katz, "Language, Epistemology, and Mysticism," in Steven Katz, ed., *Mysticism and Philosophical Analysis* (Oxford and New York: Oxford University Press, 1979), 26. The emphases are mine.
- 13. For James's classic identification of the basic phenomenological elements of mystical experience, see his *The Varieties of Religious Experience* (1902; reprint, New York: Penguin Books, 1982), 380–1. This apophatic process of deepening insight through removing the basic categories of every day cognition is perhaps best seen in the early Daoist tradition, where the progressive emptying out of the contents of consciousness results first in a state alternately described as being completely empty, attaining the One, or merging with the Dao. This is then followed by the arising of a attachment-free cognition that spontaneously perceives, knows, and acts in complete harmony with the greater forces of the cosmos. For details on these processes see two articles of mine: "Evidence for Stages of Meditation in Early Taoism," *Bulletin of the School of Oriental and African Studies* 60:2 (June 1997): 295–314, and "Bimodal Mystical Experience in the 'Qiwulun' of *Chuang Tzu*," *Journal of Chinese Religions* 28 (2000): 1–20.
- 14. Sumner B. Twiss, "Shaping the Curriculum: The Emergence of Religious Studies," in Mark Hadley and Mark Unno, eds., Counterpoints: Issues in Teaching Religious

- Studies (Providence, RI: Department of Religious Studies, Brown University, 1995), 33. Although written as a study of a particular department, it is a case study for the entire field.
- 15. See, for example, Harold D. Roth, *The Textual History of the Huai-nan Tzu* (Ann Arbor: Association for Asian Studies, 1992).
- 16. This quote is taken from an interview I did in 1981 with Needham that was incorporated into the radio program "Divination and Cosmology in Ancient China," on *Ideas* (Canadian Broadcasting Corporation, February 9, 16, 23 and March 2, 1982). This particular broadcast was the first, on February 9.
- 17. The search for the historical Jesus is a topic that has roiled Christian theology for over four centuries; however no era has been so engaged in this topic as that of the past half century, when the theological quest to establish the historicity of Jesus as an example of the working of the Divine in the world has been challenged by the critical techniques of historical scholars who have attempted to differentiate reliable data from myth and pious elaboration. Representative writings in this massive corpus include: Albert Schweitzer, *The Quest for the Historical Jesus* (1909; reprint, New York: Dover, 2005); Norman Perrin, *Rediscovering the Teaching of Jesus* (New York: Harper and Row, 1967); John Dominic Crossan, *The Historical Jesus: The Life of a Mediterranean Jewish* Peasant (New York: Harper and Row, 1993); E. P. Sanders, *The Historical Figure of Jesus* (London and New York: Penguin Books, 1993); Robert Funk et al., *The Five Gospels: The Search for the Authentic Words of Jesus* (San Francisco: HarperSanFrancisco, 1993).
- 18. Russell McCutcheon, *Critics Not Caretakers: Redescribing the Public Study of Religion* (Albany: SUNY Press, 2001) is probably the most direct statement of this thesis; his *Manufacturing Religion* (Oxford and New York: Oxford University Press, 2003) argues this critique in terms of the presumed clash between "insider" and "outsider" perspectives in the study of religion. His critique of the study of religion as a special sui generis phenomenon in the latter volume is not without merit, but he doesn't go far enough to break away from the European cultural presuppositions that support objectivist historicism and social-scientific reductionism to attain a truly unbiased perspective.
- 19. James, Varieties, 42.
- 20. B. Alan Wallace, "The Intersubjective Worlds of Science and Religion," in Proctor, *Science, Religion, and the Human Experience*, 309.
- 21. B. Alan Wallace, *The Taboo of Subjectivity* (Oxford and New York: Oxford University Press. 2000). 41–56.
- 22. Mulāmadhyamika kārikās 24.11.
- 23. I use the names *Laozi* and *Zhuangzi* as conventions to refer to the philosophical arguments made within those works; I do not intend to imply that there was a real historical person named Laozi who authored this work (there was not). The historical Zhuangzi, or Zhuang Zhou, was author of perhaps chapters one to seven (the "Inner Chapters") of the *Zhuangzi* text. For the former, see A. C. Graham, "The Origins of the Legend of Lao Tan," in Livia Kohn and Michael LaFargue, *Lao-Tzu and the Tao-te-Ching* (Albany: SUNY Press, 1998), 23–40. For the latter, see Graham, "How Much of *Chuang Tzu* did Chuang Tzu Write?" in Harold Roth, ed., *A Companion to Angus C. Graham's Chuang Tzu: The Inner Chapters* (Honolulu: University of Hawaii Press, 2003), 58–103; and Harold Roth, "Who Compiled the *Chuang Tzu*?" in Henry Rosemont Jr., ed., *Chinese Texts and Philosophical Contexts: Essays in Honor of Angus C. Graham* (LaSalle, IL: Open Court Press, 1991), 79–128.

- 24. Angus C. Graham, Chuang-tzu: The Seven "Inner Chapters" and Other Writings from the Book Chuang-tzu (London: Allen and Unwin, 1981), 51 (modified).
- 25. Ibid., 53 (modified).
- 26. Ibid., 51 (modified).
- 27. Ibid., 52 (modified).
- 28. Ibid., 53. My translation departs from Graham's in rendering *shi* and *fei* as "true" and "false" rather than Graham's insightful but idiosyncratic translations of "that's it" and "that's not."
- 29. My translation departs from Graham's on 53–4. The key departure is my rendering of the verbal phrase tong wei yi as "to pervade and unify" rather than Graham's "interchange and deem to be one." I feel this better captures the activity of the Way and of the sages who identify completely with it: the Way pervades everything and in pervading them unifies them. They are unified to the extent that each and every thing contains the Way within it; and they are unified in that, from the perspective of the Way within, each thing is seen to be equal. Because they attain this Way, sages can have the exact same perspective. I have also provided a different and I hope clearer translation of two important compounds, weishi and yinshi. Graham's extremely precise translations of these terms as "the That's It which Deems" and "the That's It which goes by circumstance" are insightful but overly technical for the educated reader. I have chose to translate these compounds in a way that incorporates my interpretation of their meaning as "fixated cognition" and "flowing cognition."
- 30. Harold D. Roth, *Original Tao: Inward Training (Nei-yeh)* and the Foundations of Taoist *Mysticism* (New York: Columbia University Press, 1999).
- 31. For information on Zhuangzi's inner cultivation practices see Roth, *Original Tao*, 153–61. For a study devoted to this subject, see "Bimodal Mystical Experience in the Qiwulun of *Chuang Tzu*," *Journal of Chinese Religions* 28 (2000): 1–20.
- 32. Francisco Varela, Eleanor Rosch and Evan Thompson, *The Embodied Mind* (Cambridge, MA: MIT Press, 1991), 9.
- 33. Varela et al., Embodied Mind, 150.
- 34. Evan Thompson, "Empathy and Human Experience," in Proctor, Science, Religion and the Human Experience, 273.
- 35. B. Alan Wallace, "Intersubjectivity in Indo-Tibetan Buddhism," *Journal of Consciousness Studies* 8: 5–7 (2001), 209–10.
- 36. Graham, Chuang-tzu, 53 (modified).
- 37. Ibid., 54 (modified).
- 38. Varela et al., Embodied Mind, 217-54.
- 39. B. Alan Wallace, Contemplative Science: Where Buddhism and Neuroscience Converge (New York: Columbia University Press, 2006), 15–6.
- 40. Thompson, "Empathy and Human Experience," in Proctor, Science, Religion and the Human Experience, 261–2.
- 41. Frits Staal, *Exploring Mysticism* (Berkeley and Los Angeles: University of California Press, 1975), 123–4.
- 42. Mihalyi Csíkszentmihályi, Flow: The Psychology of Optimal Experience (New York: Harper and Row, 1990).
- 43. The pioneering works in these areas are Jon Kabat-Zinn, *Full Catastrophe Living* (New York: Delta, 1990) and Herbert Benson, *The Relaxation Response* (New York: Harper, 1975). See also Ruth A. Baer, "Mindfulness Training as a Clinical Intervention: A

- Conceptual Review," Clinical Psychology: Science and Practice 10:2 (Summer 2003), 125–43 and Scott Bishop, et al., "Mindfulness: A Proposed Operational Definition" Clinical Psychology: Science and Practice 11: 3 (Fall 2004), 230–41.
- 44. Jha's Lab at the University of Pennsylvania is doing cutting-edge research on the cognitive impact of contemplative practices. See, for example, her article A. P. Jha, J. Krompinger and M. J. Baime, "Mindfulness Training Modifies Subsystems of Attention," *Cognitive, Affective, & Behavioral Neuroscience* 7 (2007), 109–19.
- 45. The basic scientific research in these areas is voluminous. I refer the reader to the excellent summary article of research through the year 2000: Jensine Andresen, "Meditation Meets Behavioural Medicine," *Journal of Consciousness Studies* 7:11–12 (2000), reprinted in Jensine Andresen and Robert K. C. Forman, eds., *Cognitive Models and Spiritual Maps* (Charlottesville, VA: Imprint Academic, 2000), 17–73. Another more recent summary of research that focuses on Tibetan Buddhist Meditation is Antoine Lutz, John D. Dunne and Richard J. Davidson, "Meditation and Neuroscience: An Introduction," in Philip Zelazo, Morris Moscovitch and Evan Thompson, eds., *The Cambridge Handbook of Consciousness* (Cambridge: Cambridge University Press, 2007), 499–555. There are two works by James Austin that present the neuroscience of Japanese Zen Buddhist contemplative experience: *Zen and the Brain* (Cambridge, MA: MIT Press, 1998) and *Zen-Brain Reflections* (Cambridge, MA: MIT Press, 2006).
- 46. Two leading works in this very new area are Martin Seligman, Authentic Happiness (New York: The Free Press, 2004); and Jonathan Haidt, The Happiness Hypothesis: Finding Modern Truth in Ancient Wisdom (New York: Basic Books, 2006).
- 47. Wallace, Contemplative Science.
- 48. For a discussion of the pedagogical theory surrounding this, see my article "Contemplative Studies: Prospects for a New Field," *Columbia Teacher's College Record Special Issue on Contemplative Education*, vol. 108, no.9 (September 2006), 1787–1816.
- 49. William James, *The Principles of Psychology* (New York: Henry Holt, 1890), vol. 1, 424.