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On spirituality and education

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ABSTRACT

It is a mistake to ignore the scientific study of spirituality. Research examining the structure and function of concepts such as "spirit" and "spirituality" is likely to reveal new insights into the relationship between a functional spirituality and other thinking skills, including creativity. The study of spirituality should not stand alone as a discrete, somewhat eccentric, focus of enquiry. There should, instead, be an effort at synthesis with mainstream psychological science and basic and applied research in the field of education. There should be some effort made to examine the functional significance of a functional spirituality. Educational researchers should feel free to consider spirituality as a focus for dialogue and exchange with colleagues and students alike. The students in my class, and some of my colleagues, may have at first recoiled slightly when I began asking them for their thoughts on spirituality, but the dialogue has been truly stimulating, interesting, and enlightening.

> The highest activity a human being can attain is learning for understanding, because to understand is to be free
> Baruch Spinoza, *Ethics*
>
> The creative is successful; this is beneficial if correct.
> I Ching

I recently asked a group of third year psychology students, "Do you think psychologists should study spirituality?" Some of them said, "No, spirituality cannot be observed or objectively measured – it has no place in psychological science." I wondered if this reply reflected a misunderstanding of the goals of psychological science – a curious negation of certain categories of human experience as a focus of inquiry – or simply a dislike for entertaining ideas that are in some way associated with orthodox religion. I cannot admit to having access to the contents of my students' minds, but I think some may be missing out on something that is potentially critical for their education.

In the closing sections of his book, *The God Delusion*, Richard Dawkins hopes that we will eventually abandon religious belief completely and "emancipate ourselves" by achieving an intuitive and mathematical understanding of reality—the very small, the very large, and the very fast. He sees humanity as pushing against the limits of understanding and he hopes eventually to discover that there are no limits. But, surprisingly, Dawkins says little about the psychological, functional significance of arriving at this state of understanding: it is unclear what he considers will be the effect on human consciousness, human behaviour, and human social functioning. Understanding the very small, the very large, and the very fast is one thing; understanding human conscious experience, human behaviour, and human social functioning is another thing.

I do not believe in God, but in this paper I argue that spirituality should be a focus of scientific enquiry, and that the understanding achieved as a result of this enquiry should be a part of education for thinking and creativity. Furthermore, the discovery of spirituality can be of profound significance in the life and work of learners.

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1. Placing spirituality into the science of human development

Developmental psychologists point to different stages through which thinking and consciousness can develop (Austin, 2000; Fischer & Bidell, 2006; Gebser,1985; Labouvie-Vief, 1994; Pascual-Leone, 2000). Consciousness develops slowly through infancy and childhood – centring first on bodily sensation and extending out into the physical and social world, the world of language, memory and future plans – and in early adulthood consciousness itself makes us aware of human subjectivity. If we are then fortunate enough to receive a good education, we will learn that every attempt to construct an objective account of consciousness struggles with the problem of human subjectivity (Ò'Nuallàin, 2006; Rose, 2006). At the same time, consciousness itself, coupled with our prolific imaginations, can offer us a sense of limitless, radical mental freedom and profound, universal connection: this subjective reality often points us in the direction of ideas that pertain to a transcendental, spiritual state of being that is somehow above and beyond the material world, free from all material constraints.

Some developmental psychologists believe that categories of spirituality represent a certain peak in human cognitive and emotional development—modes of thinking and feeling that correlate with wisdom (Gebser, 1985; Pascual-Leone, 2000). Other psychologists describe spirituality as a core character strength (Peterson & Seligman, 2004). Others suggest that the cognitive-emotional aspects of spirituality – a sense of connectedness, universality, and fulfilment (joy and contentment) that result from personal encounters with a transcendent reality – represent a core dimension of personality along which people *vary* (Piedmont, 1999). But not everyone agrees that spirituality is a dimension of human 'personality' or human 'character'. Some see it as a byproduct of language use (Hayes, Barnes-Holmes, & Roche, 2001), and most agree that it is difficult to conceptualize and measure.

Nevertheless, spirituality exists: states of consciousness and associated abstractions (i.e., ideas, values, and beliefs) that pertain to the concept "spirituality" exist in human systems – both the states and the associated abstractions are part of a living system – and one of our tasks as scientists is to understand the structure, process, and function of this living system at the individual and group level of analysis. Thus, we cannot delete spirituality from culture if our goal is to understand it. Having said that, we must strive to be neutral – we must work to build a neutral systems science (Warfield, 2004, 2003) – and we must therefore begin our inquiry with "*what is*" and with "*what we posses by way of knowledge*"; and not with "*what should be*" or with "*what should be deleted or negated*".

2. Talking with others and thinking for yourself

Notably, when I ask Irish scientists who have read *The God Delusion*, "So, what do you think?," many of them start off by scrunching their face in mild distain (much like Dawkins does when talking to homoeopathists) and then they usually say something like this: "I think he's picked on an easy target – most people don't really believe in God, they believe in belief" (Physicist), or "He's missing the point – there is more to religion than simply believing in God: there is a positive psychological process associated with being spiritual and Dawkins says little or nothing about it" (Behavioural Scientist), or "He lacks requisite balance – his blind faith in science is no less extreme than another man's blind faith in God" (Social Scientist), or "Study the success rate of secularist moral ideologies in the 20th century and ask yourself, honestly, what is so great about the moral alternatives to Religion, and, tell me, how can the science of evolution inform how it is we can best redesign our moral, social, political, and cultural systems? (Political Scientist)".

Each person is thinking along a different track, and there may well be a spiritual undercurrent in the Irish psyche that influences some of the reactions I have observed, but none have produced an argument that truly uproots Dawkins' argument in any substantive way. Dawkins presents a very powerful psychological, socio-political, and evolutionary analysis of the ways in which the major monotheistic systems of belief influence individuals and groups – it is a very compelling account of the various *negative* influences. Thus, for those who truly value their spiritual beliefs – whatever they are – there now emerges a clear need to establish some foundation for these beliefs. If this precious thing you value so much is too easily destroyed in the context of dialogue or debate, then you might well need to question its true value.

Recall what Immanuel Kant said in 1784 when asked the question, What is Enlightenment?

> "Enlightenment is man's emergence from his self-imposed immaturity. Immaturity is the inability to use one's understanding without guidance from another. This immaturity is self-imposed when its cause lies not in lack of understanding, but in lack of resolve and courage to use it without guidance from another. Sapere Aude! [dare to know] "Have courage to use your own understanding!"– that is the motto of enlightenment."

Dawkins, in pointing to what he sees as the maladaptive correlates of religion – that is, negative behavioural and social correlates of specific religious ideas, values, and beliefs – demonstrates with ample courage that he can translate his experience into an argument supporting the claim: Religion is dangerous nonsense. And Dawkins is entitled to his view. However, being a scientist he would probably agree that the science of religion and spirituality is much more interesting than are any of his sentiments. Furthermore, drawing upon evolutionary biology (Kauffman, 1993), Dawkins would probably agree that there exists hierarchical orders of complexity in living systems, including the thinking systems that think about religiosity and spirituality (Commons, 2005; Commons & Miller, 2003), and such thinking systems can sample from a huge range of functional relations when constructing models of reality in this regard. For example, it is relatively easy to construct a systematic argument that focuses on the maladaptive *or* the adaptive correlates of religion; it is a little more difficult to con-

struct a metasystems account that coordinates maladaptive *and* adaptive functional relations; and the most difficult thing of all is to construct a paradigmatic and cross-paradigmatic explanation of both religion and spirituality that draws upon all the relevant sciences – evolutionary, social, behavioural, and brain sciences – thus providing a balanced, neutral scientific account of system dynamics (Hogan, 2008a, 2008b).

And while Dawkins focuses on the maladaptive, psychological scientists have long researched both the adaptive and the maladaptive correlates of religion. Some have argued that religious rituals and taboos can promote longevity (Sosis & Bressler, 2003), group cohesion (Zinnbauer, Pargament, & Scott, 1999), and even offer the potential for the development of *cosmic transcendence* (Atchley, 1997)—a sense of spiritual connectedness with the universe, other living beings, past and future generations (Piedmont, 1999). Others have described a form of *spiritual well-being*, which includes a sense of connection to something beyond the individual; moments of awe and wonder; moments of transcendence; being concerned with deep values; finding some meaning in life; feeling that the universe will endure (Bruce, 1998). Others point directly to the maladaptive, with one longitudinal study (Strawbridge, Shema, Cohen, Roberts, & Kaplan, 1998) reporting that religiosity buffered stress against health and financial problems, but exacerbated stress caused by marital and child problems. And there is also maladaptive religious coping (Pargament, 2002), associated with beliefs about a punishing, abandoning, and absent God, and expressions of anger and discontent with Him and others. At the same time, we are reminded that some non-theistic forms of spirituality, like Buddhism, do not suffer negative imagery associated with any God *per se*, and research suggests that one of the strategies used by Buddhists – meditation upon compassion – is potentially beneficial for one's physical health (Davidson & Kabat-Zinn, 2004; Lutz, Greischar, Rawlings, Ricard, & Davidson, 2004), as is the practice of meditation generally (Wachholtz & Pargament, 2005).

Dawkins believes that religion clouds our vision of "ultimate reality", and spirituality has no part to play in his "ultimate reality". This is an important claim that has significant consequences for how it is we approach the education of children and young adults. But what does "ultimate reality" mean to you?

3. Placing spirituality at the base of ultimate reality and at the base of creativity

The evolution from non-living to living systems has brought with it something new, something *without which* we could not understand, but *of which* we understand relatively little—an enigma of awareness: consciousness. With the evolution of consciousness we have witnessed the slow birth of insight and outsight (Gebser, 1986). *Insight* looks to consciousness, and sees what wisdom, enlightenment, and skill can be found from mastering the contents of consciousness; *outsight* looks to the system – to reduce the facts and relations of the universe to system – and sees what wisdom, enlightenment, and skill can be found from mastering the system (Siu, 1957). Some believe that spirituality is best defined as the capacity to *penetrate* reality in both directions, to broaden and deepen our powers of insight and outsight. But how do we get to this place and how does such a place constitute the basis for a definition of spirituality?

Jean Gebser's view on spirituality is informative in this regard. Gebser argues that consciousness structures have developed over the course of human history. Prior to the birth of scientific thinking (and the ability to represent the relation between self and other by reference to an 'objective' theory) historical artefacts suggest that human consciousness was *undifferentiated* (Gebser, 1985), much like the way infants experience the world prior to developing the ability to reliably conceptualize the distinction between self and other (Piaget, 1952). In this undifferentiated state, the "religious" experience is that magical sense of "world alive". Later, with the development of language as a form of communication, self and other were differentiated, and a narrative, non-scientific account was constructed outlining the "reasons" why the world is alive. In this *mythical* era, Gods and spirits are named, creation myths are passed from generation to generation. Here, consciousness can be described as two-dimensional (2D).

With the birth of science, reasoning became grounded in observation and description of functional relations in the concrete world. The world of spirits and Gods started to crumble, but it never fell apart completely. Logos sought to replace mythos: imagination and feeling had no place in the new world order—intuition and subjectivity had to be replaced by rationality, objectivity, and systematic thinking. Nevertheless, without a sound theory describing the birth of the universe, life, and humanity, the creationist myth lived on in a happy dualism that separated the world of mind and spirit from the concrete world. As such, *hypothetico-deductive reasoning* (where 'theories' are constructed as a means of understanding the relation between self and other—a product of 3D consciousnesses) was established in a divinely given, intelligently designed world. 3D consciousness never fully escaped 2D dualism or the allure of mythos.

Gebser's analysis of modern spirituality points to a new consciousness structure, one that does not seek to 'escape from' but to 'make integral' and 'advance upon' earlier consciousness structures. Gebser describes a 4D consciousness structure that is aware of, accepts, and utilizes the latent power in the magical (1D), mythical (2D), and mental (3D) consciousness structures, but it cannot be systematized by 3D consciousness, which is rational and bound by space and time in its form of representation. 4D consciousness is aperspectival, integral, open and free, present, concretizing, ego-free, transparent, and rendering diaphanous the world perceived and imparted in truth.

Gebser's description fits with other more recent conceptualizations of spirituality. For example, some have argued that a feature common to all spiritual experiences is the aesthetic sense of unity and, by extension, universality (Atchley, 1997; James, 1985; Piedmont, 1999, 2001; Piedmont & Leach, 2002; Stace, 1960), whereby the sense of unity granted through awareness of 'the one' interconnected field of experience is expanded and generalized such that there is an experience of universality and a sense of connection between the individual and the cosmos. This experience can infuse the individual

with a profound sense of fulfillment and reinforce ideas that pertain to meaningful, purposeful existence and an attachment to something greater than themselves (Belavich & Pargament, 2002; Cacioppo, Hawkley, Rickett, & Masi, 2005; Marcoen, 2005; Zinnbauer et al., 1997). Related ideas emerge, and people will sometimes define spirituality by reference to a loving connection to others, self-effacing altruism, blissful transcendence, and religiosity and sacredness (Greenwald & Harder, 2003). And some people adopt a very deliberate strategy: they *practice* non-referential compassion, projecting a profound feeling of love upon "everything" and "no (specific) thing", and this practice fosters a highly integrated brain electrical state that is correlated with a unified sensory–motor experience (Cahn & Polich, 2006; Hogan, 2006; Lutz et al., 2004).

There are many "varieties of religious experience" (James, 1985), some of which are not bound to an orthodox religious belief system *per se*, and no thinker has yet mastered the art of taking all the many functional relations and placing them into one clear, coherent, and functional theory (Hogan, 2008b). It has been noted recently that consciousness research – a suitable place within which to situate our analysis of spirituality – has not yet attempted to merge the traditions of inner empiricism (understanding derived from the work of insight) with outer empiricism (understanding derived from the field of outsight) (Ò'Nuallàin, 2006). Nevertheless, we do see the beginning of such an effort and there may be a way to merge the two traditions (Hogan, 2008c). There is already a substantial body of research in this area that offers us ample scope for testing of novel hypotheses. For example, the research by Richard Davidson and colleagues suggests that deep meditative states (of non-referential compassion) can induce high levels of gamma wave synchronization in the brain. Gamma is a frequency associated with the binding of gestalts and the integration of distal brain networks during learning (Miltner, Braun, Arnold, Witte, & Taub, 1999; Pulvermuller, Lutzenberger, Preissl, & Birbaumer, 1995). Thus, the path of inner empiricism, if it is successful in generating heightened gamma power brain states, may facilitate increased cognitive power.

Nevertheless, we need to be careful here: although the experience of certain states of consciousness, for example, the "nothingness" state, amounts to a deeply spiritual experience for some people, there remains a problem of moving from a "nothingness" state to a description of the state, which is necessary for scientific analysis (Huang, 1973). But there is some convergence in the scientific literature and, drawing upon this literature and my own experience, I have elsewhere argued for a definition of spirituality as *transcendence-in-action* (Hogan, 2008a). It is useful to outline my position in brief and highlight why I think the exploration of spiritual practices is useful not only as a focus of scientific enquiry (as suggested above) but also as a basis for ongoing creativity, vitality, and cognitive power that supports all other thinking skills.

First, consistent with Hayes and colleagues (Hayes et al., 2001), I believe there is a very fundamental linguistic basis for spirituality as a core concept, a concept that has existed in culture for thousands of years. Specifically, all psychological experiences occur from the perspective "I" located "HERE" and "NOW". This perspective we can label "self-as-context" as opposed to "self-as-content". For example, I may remember what I did yesterday or 10 years ago, or I may imagine what it would be like to be Bruce Lee, but all these events will be viewed from the ever present I, HERE, and NOW, and even if nothing about my physical nature, my thoughts, and my emotions are the same from one moment to the next, my viewing of this changing reality is always from I, HERE, and NOW. In this sense, self-as-context has no physical limits—it is experienced as boundless, timeless, and without finitude, and it appears to exist independently of one's body, thoughts, and emotions. This independent, infinite quality also gives rise to talk of the spiritual, the immaterial, and the incorporeal. Specifically, because self-as-context is only experienceable in its effects, not as a thing or object *per se* – it is, instead, the aspect in which things are held – it thus fits the dictionary definition of "spirit" reasonably well: *that which pertains to the immaterial and that which has no extant reality*. In other words, much like "spirit", self-as-context has no stable edges or limits: it is "no thing". This view coheres well with the Eastern tradition of thinking about spirituality, which points to the philosophical and practical implications of being "nothing" (Austin, 2000; Ho & Ho, 2007; Sim & Gaffney, 2002). One implication, according to Hayes and colleagues, is that experience with simple verbal relational frames, such as I, HERE, and NOW, can help people to gain freedom from maladaptive contextual control that constrains behavioural flexibility as a result of aversive experiences linked with other, content-dependent relational frames active at a specific time and in a specific place. In other words, understanding self-as-context expands the behavioural repertoire of self-as-content. In this sense, exploring the language of spirituality may benefit students if it leaves them open to the experience of a more expansive, flexible behavioural repertoire in the context of reflective thinking exercises. However, this hypothesis has yet to be tested.

Second, the developmental principle of equifinality (in open systems a given end state can be reached by many potential means) implies that conceptualizations of "spirit" and action states associated with a functional "spirituality" can be derived in many ways. The language games that Hayes and colleagues propose are one potential route to a functional spirituality. Another route, consistent with Austin (Austin, 2000), is via the practice of meditation, which fosters increased intensity of awareness that can lead eventually to awareness of "no thoughts", and given a certain context (e.g. sitting in front of a white wall with no visible edges and no objects in sight), representations of the body can eventually be negated and "no body" transcendental states can arise (e.g. the experience of "being white light"). Although practitioners recognise that some forms of "nothingness" cannot be not long retained (Austin, 2000), repeatedly entering the state fosters a more stable and functional state that is linked to a moderate (rather than maximal) intensity of awareness that can better sustain itself during normal day-to-day activities (Austin, 2000). We can use the term "no-mind" to refer to this final state. No-mind can also be described as *transcendence-in-action*: it amounts to a skill (the maintenance of a transcendental state undergirding goal pursuit) that is slowly transferred to multiple other skill domains. It corresponds to a relative increase in high frequency (15–25 Hz) electrical brain power (Cahn & Polich, 2006). Eventually, after considerable practice, the no-mind state itself dominates and the practice of nothingness is less necessary. With explicit practice and application, transcendence-in-action (no-mind) can manifest in physical and mental movements that are increasingly complex. However, longitudinal studies

need to be conducted to ascertain the most straightforward and direct route to a functional spirituality that is open to all. For example, in the context of meditation, derivation of the idea "I-ONE-FREE MOVEMENT" may arise as a consequence of early attempts to label the profoundly powerful experience of "Pure intention in a field of nothingness" (Hogan, 2008a). As soon as one idea is generated as a consequence of "specific intentions re-entering nothingness", a whole new process of abstraction and derived relational responding may begin (Hayes et al., 2001). This may, in turn, be the foundation stone for a massive surge in creativity in all domains of one's life, but there is no reason to suggest that the path of meditation is the best route to this goal. The route suggested by Hayes and colleagues, the everyday practice of compassion, regular acts of perspective-taking, the reading of key philosophical writing, dialogue with those who have derived a functional spirituality, and so on, may result in the achievement of the same goal—the derivation of an experiential state free from undue contextual control which ultimately supports thinking skills and creativity. In fact, a functional spirituality might simply represent a core thinking style that, possibly, undergirds, consolidates, or synthesises other, empirically established thinking styles (Sternberg, 1997), or allows for flexible switching between one style and another. More specifically, if a functional spirituality has at its core enhanced behavioural flexibility that results from freedom from undue contextual control, then it is reasonable to assume that a person acting in accordance with this value will be more open to experience and more open to variable patterns of verbal control that service more variable strategies of cognitive control. It is certainly worth investigating this hypothesis and examining further the functional relations that exist between the derivation of spirituality and the process of thinking with skill and creativity in contexts multifarious.

In conclusion, I believe it is a mistake to ignore the scientific study of spirituality. To my mind, scientific analysis should focus first on examining the structure and function of concepts such as "spirit" and "spirituality" in different people across different cultures and at different stages of child and adult development. A call for research of this type has been made in the past (Ho & Ho, 2007), but we need more discussion focused on suitable research methodologies, and we need more time and energy invested in quality research in this area. Second, I believe the study of spirituality should not stand alone as a discrete, somewhat eccentric, focus of enquiry. There should, instead, be an effort at synthesis with mainstream psychological science. There should be some effort made to examine the functional significance of a functional spirituality and I have outlined a few possible lines of enquiry above, but there are many more lines of enquiry that are worthy of consideration. Finally, I call upon educational researchers to think seriously about spirituality as a focus for dialogue and exchange with colleagues and students alike. The students in my class, and some of my colleagues, may have at first recoiled slightly when I began asking them for their thoughts on spirituality, but the dialogue has been truly stimulating, interesting, and enlightening. What more can a teacher ask for?

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