Tradition & Discovery

The Polanyi Society Periodical

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Preface

The Polanyi Society became an official IRS nonprofit organization during the last year. The Society took this step because we needed to raise a few dollars in order to sponsor the June, 2001 conference. Members were generous to the Society and we remain in the black after our conference. Normally, the Polanyi Society has only had a few basic expenditures connected with the publication of *TAD* and providing the annual meeting. These costs, however, continue to increase and the Society will likely soon need modestly to raise its annual dues. Richard Gelwick, the Polanyi Society Treasurer, has provided the financial statement on p. 3 for our recently completed fiscal year.

In this issue, I have inserted a flyer requesting a check or credit card for 2001-2002 dues. Some have already paid; please ignore the flyer if you have (bulk mailing procedures mandate every packet must include the same material). If you wish to make a donation, please do. Since we are an official nonprofit organization, US citizens will receive a tax letter for the amount above the annual dues. For donations of greater than \$50, you will receive a copy of Andy Sanders' book, *Michael Polanyi's Post-Critical Epistemology*.

John Haught's essay, "Why Do Gods Persist? A Polanyian Reflection," was one of the plenary addresses at the June, 2001 Polanyi Society conference at Loyola University, Chicago. Other material generated by this conference will follow in future issues. Richard Gelwick's "Heuristic Passion And Universal Intent: A Response To George R. Hunsberger," as its title suggests, is a continuation of the dialogue between Gelwick and Hunsberger in TAD 27:2 and 27:3 about Christian theologian Lesslie Newbigin's use of Polanyi's ideas. The review essays by Joseph Kroger and John Apczynski treat Personal Catholicism: The Theological Epistemologies of John Henry Newman and Michael Polanyi and author Marty Moleski, S.J., has kindly provided a short response. In addition, there are five reviews of books that are likely to be of interest to members.

Please especially note (p.4) the upcoming annual meeting program in which we are combining with the AAR Religion and Science Group to consider the work of Philip Clayton.

Phil Mullins

Tradition and Discovery is indexed selectively in The Philosopher's Index and Religion One: Periodicals. Book reviews are indexed in Index to Book Reviews in Religion.

NEWS AND NOTES

Polanyi Society Financial Statement September 1, 2000 – August 31, 2001

Beginning Balance in Checking	677.33
Income:	
From interest	31.59
From membership dues	12,100.
& gifts	
Total	12,131.59
Expenses:	
TAD 27:1	850.
Loyola University	1,543.
TAD 27:2	833.25
Honoraria for Chicago Conf	790.
Honoraria for Chicago Conf	500.
Honoraria for Chicago Conf	1,350.
Loyola University	4,760.25
AAR Fees	280.
Total	10,906.50
Ending Balance in Checking	1,225.09
Beginning Balance in Savings	1,002.37
Ending Balance in Savings	1,028.73

Polanyi Society Membership

Tradition and Discovery is distributed to members of the Polanyi Society. This periodical supercedes a newsletter and earlier mini-journal published (with some gaps) by the Polanyi Society since the mid seventies. The Polanyi Society has members in thirteen different countries though most live in North America and the United Kingdom. The Society includes those formerly affiliated with the Polanyi group centered in the United Kingdom which published Convivium: The United Kingdom Review of Post-critical Thought. There are normally three issues of TAD each year.

Annual membership in the Polanyi Society is \$20 (\$10 for students). The membership cycle follows the academic year; subscriptions are due September 1 to Phil Mullins, Humanities, Missouri Western State College, St. Joseph, MO 64507 (fax: 816-271-5680, e-mail: mullins@griffon.mwsc.edu). Please make checks payable to the Polanyi Society. Dues can be paid by credit card by providing the card holder's name as it appears on the card, the card number and expiration date. Changes of address and inquiries should be sent to Mullins. New members should provide the following subscription information: complete mailing address, telephone (work and home), e-mail address and/or fax number. Institutional members should identify a department to contact for billing. The Polanyi Society attempts to maintain a data base identifying persons interested in or working with Polanyi's philosophical writing. New members can contribute to this effort by writing a short description of their particular interests in Polanyi's work and any publications and /or theses/dissertations related to Polanyi's thought. Please provide complete bibliographic information. Those renewing membership are invited to include information on recent work.

NOVEMBER 2001 POLANYI SOCIETY MEETING CO-SPONSORED BY RELIGION AND SCIENCE GROUP

SPECIAL SESSION ON THE WORK OF PHILIP CLAYTON Visiting Professor, Harvard University

The Polanyi Society annual meeting is to be held on November 16 and 17, 2001 in Denver. The program is printed below. As in past years, this annual meeting is to be held in conjunction with the annual meeting of the American Academy of Religion and Society for Biblical Literature. Because of pressure for space, it is necessary to register for the AAR//SBL annual meeting to be eligible for hotel accommodations in one of the primary hotels near where meetings are held. However, anyone who is interested is welcome to attend the Polanyi Society sessions, whether or not he or she is attending the AAR/SBL meetings. For information about registration for the AAR/SBL meetings, phone 1-888-447-2321 (U.S. and Canada) or 1-972-349-7434 (outside U. S. and Canada) or visit http://www.aarweb.org. Philip Clayton's book, *God and Contemporary Science*, is to be the focus of the November 16 session. Clayton's paper for the November 17 session will be posted on the Polanyi Society web site (http://www.mwsc.edu/~polanyi) when available in the fall.

Friday, November 16, 9:00 p.m. - 11:00 p.m--Adam's Mark Hotel, Savoy Room

A Critical Engagement of Philip Clayton--God and Contemporary Science

Presiding: Ernest Simmons, Concordia College Moderator: Philip A. Rolnick, Greensboro College

Theological Response: Andy F. Sanders, University of Groningen, Netherlands

Scientific Response: William Newsome, Professor of Neuroscience, Stanford University

Open Discussion

Saturday, November 17, 9:00 a.m. - 11:30 p.m.--Colorado Convention Center, ROOM C3-A208

"Emergence and Supervenience"

Presiding: Ernest Simmons, Concordia College

Moderator: Walter B. Gulick, Montana State University

Philip Clayton, "Emergence, Supervenience, and Personal Knowledge"

Responses:

Biology: Martinez Hewlett, Department of Molecular and Cellular Biology, University of

Arizona

Theology: Gregory Peterson, Thiel College

Philosophical Theology and Polanyi: Philip A. Rolnick, Greensboro College

Why Do Gods Persist? A Polanyian Reflection

John F. Haught

ABSTRACT Key Words: logic of achievement, evolutionary psychology, Deep Darwinism, biology of religion

Recent evolutionary interpretations of religion can be illuminating. However, by failing to take into account what Polanyi calls the "logic of achievement" they end up attributing to impersonal segments of DNA the personal striving that underlies religious existence.

Did Darwin get it right? Most of us would respond with at least a qualified "yes." Darwinian science tells us at least part of the story of life. We may disagree on just how far contemporary neo-Darwinian biological explanations can take us toward an adequate explanation of living phenomena. But most of us will agree that they can take us a long way.

Today, however, many biologists and a growing number of social theorists, anthropologists and philosophers have become convinced that Darwin got it so completely right that any alternative accounts of life are essentially vacuous. The leap from "Darwin got it right" to "Darwin tells the whole story" has proven increasingly irresistible. Numerous scientific careers are now being dedicated to the proposition that the modest nineteenth century naturalist's ideas are powerful enough to make complete sense of almost anything in the realm of living and thinking beings. Darwinian explanation can even give us an unsurpassably foundational understanding of human ethics¹ and religion.²

Here let us consider what religion looks like when viewed from a Darwinian perspective? For a long time evolutionary biology stayed away from religion. Its proponents were typically reluctant to apply their science's insights to something so apparently *sui generis* as the experience of the sacred. But the characteristic drive of science is to look for purely natural explanations. It is compelled, in fact, to approach its subject matter without bringing any supposed non-natural causes into its account of phenomena. Why not look at religion naturalistically also?

The new science of evolutionary psychology, a derivative of sociobiology, proposes to "naturalize" our understanding of religion completely by way of neo-Darwinian explanation. This means that *cultural* accounts of behavior will no longer play a fundamental role. And it also means that any *theological* appeal to the idea of God or the sacred will no longer be necessary to account for religious life and thought. And we can now explain "the persistence of the gods," so goes this confident new program, without assuming the hidden presence to human consciousness of any ontologically real sacred dimension.

Evolutionary psychology starts with two claims: first, that human behavioral patterns and cognitional responses, no less than anatomical or physiological features, are inherited; and, second, that inheritance in humans, as in all other species, is a matter of genes seeking to get themselves passed on to future generations. Genes, however, exist not only in individual organisms but in their kin as well, and so fitness (the probability of reproducing) means not individual but *inclusive* fitness. This broadly genetic reinterpretation of Darwinian

evolution was worked out by George Williams (in the US) and by William Hamilton and John Maynard Smith (in the UK) during the 1960s.³ In the 1970s Robert Trivers and Richard Alexander (in the US)⁴ argued that the notion of Darwinian selection works best when the units of selection are taken to be genes rather than organisms or populations. Thus, as Alexander writes: "genes are the most persistent of all living units, hence on all counts the most likely units of selection. One may say that genes evolved to survive by reproducing, and they have evolved to reproduce by creating and guiding the conduct and fate of all the units above them."⁵

Darwinian psychology claims that the ways in which the human brain responds to the world were designed by evolution during the Pleistocene (beginning about a million years ago) specifically for a hunter and gatherer type of existence. The brain comprises distinct systems designed to cope with specific problems related to survival during and prior to the Paleolithic period. Thus, according to Leda Cosmides and John Tooby, the brain is less like a general purpose computer than a Swiss army knife. Its various components are designed for separate kinds of tasks. People today carry around the same kind of brain that our Paleolithic ancestors had; and because this organ was shaped by adaptive evolutionary processes in radically different circumstances from those we face today, contemporary humans often have trouble adapting to the new environments that subsequent cultural developments have brought about.

To evolutionary psychologists one of the more puzzling responses the human brain has made to the world is its tendency to create illusions of the sacred and other "counterintuitive" religious ideas garnished with strange rituals and bizarre beliefs. Why, they ask, has religion accompanied us so persistently, apparently since the very beginning of Cro-Magnon humanity? Most representatives of the present generation of Darwinian anthropologists now agree that religion is an irritatingly obsolete but stubbornly ineradicable human tendency. Our religious orientation, though clearly out of date, seems to be so deeply rooted and so pervasive that it cannot be understood simply as an ephemeral cultural concoction. Religion must be connected, instead, to the specific kind of brains we have, to cerebral systems that developed in us because they served the cause of survival during the course of early human evolution. This means, then, that the ultimate explanation of religion has to do with gene-survival. Genes need vehicles that will allow them to replicate faithfully and prodigiously, and it now appears that vehicles equipped with a tendency to be religious have been most suitable to human gene survival.

In his Gifford Lectures *Creation of the Sacred: Tracks of Biology in Early Religions* the classicist Walter Burkert argues that something "beyond" culture and beyond individual civilizations is needed to account for the *universalia* of religion and its obstinate refusal to disappear. But since for Burkert what lies "beyond culture" cannot possibly be the sacred itself, as religious people have irrationally thought, an adequate explanation must look for religion's ultimate explanation in the realm of the only other "beyond culture" available. That would be nature. And on the basis of the new Darwinian understanding, Burkert contends, we are in a much better position than ever before to understand just why religion continues to exist and in some places even thrive. Darwinian analysis allows anthropology to conclude that religion, beneath its complex surface manifestations, was ultimately invented by our genes as an adaptive contrivance. Religion is fictitious to the core but extraordinarily effective as far as the survival of the genes that invented it is concerned. In Burkert's understanding, then, the gods persist because of our genes' need to persist. ⁷

The proximate explanation of religion lies, of course, in specific regions or systems of the human brain; but because the properties of the brain are themselves to be understood as essentially adaptive, the ultimate explanation of our piety lies in segments of DNA. The story, of course, is a bit more complicated than this, as even most of the new biologists of religion will allow. Genes are interwoven with cultural

expressions that vary from place to place and from time to time. There is "coevolution" of genes and culture. Our genes do not directly control our religious ideas. However, they do determine that we will have the kinds of brains and nervous systems that lead us to engage in prayer, myth-making, sacrifice, worship and adherence to sacred codes. In the final analysis we dance to our genes' music, even when we are convinced that our religions are responses to the "totally other" world encountering us from a sacred beyond.

The latest example of this approach is Pascal Boyer's confidently titled new book *Religion Explained: The Evolutionary Origins of Religious Thought* .8 Patently modelling his title, as well as his philosophical assumptions, on Daniel Dennett's materialist manifesto *Consciousness Explained*, Boyer, a cultural anthropologist, postulates that our religious attachment to gods is the consequence of our Pleistocene ancestors' developing brains that aided human survival only by acquiring certain adaptive skills. The brain, Boyer admits, has no specifically religious instinct. In fact, in itself religion is an "airy nothing" that persists only because it is parasitic on several determinable cognitive systems. But the disparate cognitive systems themselves evolved as purely survival mechanisms. One of these systems, for example, is that of predator detection. Our evolutionary heritage, Boyer states, is "that of organisms that must deal with both predator and prey." Organisms that were not good at detecting predators obviously could not adapt and were therefore unworthy vehicles for gene-survival. Those that were good at detecting predators, on the other hand, are the ones that survived and passed on genes that give us the same predator-detecting cerebral properties we possess now.

A brain endowed with the capacity to detect unseen predators, Boyer's argument continues, is one that can function readily as a host for parasitic religious ideas. It is only a small step, after all, from being constantly vigilant for hidden predators to looking habitually for hidden *agencies* of all kinds. Natural selection caused our brains to develop in such a way that they would eventually look for supernatural explanations which, like hidden predators, can be taken to be quite real even though they remain out of sight. Hence, from a survival strategy fashioned by ancestral genes human brains have inherited the disposition that leads us even now to persist in the creation of gods. Though our cultural situation is different from that of hunters and gatherers, it is ultimately the remote Pleistocene project of gene-survival that explains, in a purely naturalistic way, just why we still tend to be religious.

Boyer's Darwinian perspective maintains that we are a religious species not because we have ever encountered God, or because we have been grasped by any actual divine revelation, but simply because our ancestors were genetically endowed with an adaptive brain that *per accidens* also possessed a propensity to create illusions of the sacred. So the *ultimate* explanation of religion and its persistence, at least when viewed from Boyer's perspective, has more to do with what our genes needed in order to survive than with later cultural conditioning or alleged encounters with transcendent reality.

The working assumption here is that any behavioral characteristic that enhances the prospects of gene survival may be said to be "adaptive." Genes that make a snow rabbit white, for example, heighten the chances that the whitest snow rabbits and their genes will be the ones selected for survival. Likewise genes that molded predator detecting systems in human brains long ago, in coordination of course with genes for other adaptive traits, have made it possible for humans not only to survive, but also to be ready receptacles for the wooly notions of religion. Indeed all of the characteristics we associate with religion—its rituals, doctrines, stories, institutions and theologies—are fully understandable if we realize how readily they attach themselves to cognitive and other organic systems that were originally selected by nature only for their survival value.

Boyer's interpretation of religion is much more circuitous and subtle than that of other evolutionary psychologists. He has carefully framed his thesis in such a way that the "airy nothing" that is religion may now quietly evaporate without causing irreparable damage to our physical constitution or our survival prospects. But according to most other evolutionary psychologists and anthropologists (following E. O. Wilson's own approach) religious ideas themselves have played a much more directly adaptive role than Boyer's thesis acknowledges. In fact, there is a suspicion among many of the Darwinian intepreters that in an unfriendly universe religious ideas kept our ancestors from having to look into the abyss of the world's impersonality. By constructing mythic visions of eternal cosmic order, for example, religions provided illusory but effective shields against the terrors of existence. And by favoring our species with fictitious phantasms of a purposeful universe, religions gave our human predecessors a reason to keep on living, to bear offspring, and thus keep their genes from perishing.

This "biology of religion," while still in its infancy, has begun to gather momentum in academia. Its practitioners now include Walter Burkert, Robert Hinde, Daniel Dennett, Pascal Boyer, Steven Pinker, Michael Shermer, Loyal Rue, and many others. What all of these interpreters—writing out of diverse disciplines—agree upon is that with Darwin's (and E. O. Wilson's) help we now have scholarly access to a more deeply naturalistic explanation of our ageless and persistent longing for gods than ever before.

The neo-Darwinian debunking of religion, of course, is not the first instance of the post-Enlightenment claim that religion is "nothing but" this or that. During the modern period a number of candidates have sought the office of Ultimate Explanation of religion. Religion has been explained—or explained away—as the projection of infantile desires, the reflection of societal ideals, or as the longing for pattern and meaning. Rationalism and science have allegedly demystified spiritual longing, showing it to be a product of human weakness, fear, resentment, repressed sexuality—in general, of an inability to face "reality." But evolutionary psychologists, without necessarily rejecting the earlier theories, are convinced that by dint of Darwinism we have at last hit upon *the* rock bottom reason for religion. It can all be explained ultimately by the simple fact that our genes are seeking immortality.

The Whole Story?

If neo-Darwinian evolutionary psychology is giving us an adequate explanation of religion, if it is telling us the *whole story*, then of course we would now have to concede that our religious ideas are cognitively empty. They are pure fictions, and lovers of *truth* should be willing to give them up—as apparently the new Darwinian debunkers of religion have done themselves

However, it is interesting to watch how the Darwinian anthropologists deal with the notion of truth. While they claim at last to be in possession of the final facts about religion, they are not terribly annoyed, as were many earlier critics of religion, that most of humanity still wallows in the essentially *false* comforts of sacred ideas. There is even a coddling tolerance of religious illusions, an indulgence that critics such as Sigmund Freud, Karl Marx, Friedrich Nietzsche, Bertrand Russell, Jean-Paul Sartre, W. K. Clifford or Jacques Monod would have found highly objectionable on moral grounds.

Why then do the new Darwinian critics treat religion so much more amiably, even if still condescendingly? Is it perhaps because a gene-focused Darwinian unmasking of religion is obliged to conclude that if our ancestors had adhered to a modern scientific ethic of knowledge we would not be here to point out their naiveté? If Paleolithic and later humans had been in a position to face the "truth" head-on, or if they had idealized "objectivity" in the way our Darwinian scientists themselves are supposed to, would they and their genes ever have survived? Lacking our scientific and technological ways of coping, our ancestors could not have adapted to the natural world without the illusions of religion—at least if we follow the logic of the new Darwinian critics. Happily for us, nature endowed our species in its infancy and adolescence with a glorious capacity for self-deception. Our ancestors' and our own reluctance to face truth has been one of our most adaptive and even endearing features! Thus the evolutionary psychologists and anthropologists are in the interesting position of having to embrace the objectivist (naturalist) ideal of knowing as far as their own work and educational vocation is concerned, while at the same time implicitly rejoicing that our ancestors did not share this ideal themselves.

Some would go so far as to encourage even now the persistence of religious illusions into the future for the sake of our gene-survival. Influenced heavily by E. O. Wilson and Darwinian anthropology, for example, the philosopher of religion Loyal Rue has recently argued that our own continuation and thriving as a species is in great measure the consequence of a genetically based capacity for lying and self-deception that comes to expression, among other ways, in our religions. From a biological perspective the propensity for "guile" can be viewed as a kind of saving "grace." Among animals, for example, nature tends to select deceivers, while those incapable of deception do not survive and reproduce. Likewise, "the role of deception in human adaptive strategies has been so important that we may suspect it to be essential to our survival." 12

According to Rue, the rationally and scientifically awakened human mind must now embrace *nihilism* as the only "truth" that faithfully reflects the real world. But, thank goodness, we have been endowed by evolution with a capacity, especially in our religions, to spin noble lies that allow us to deny this truth and keep it out of view! Humans happily have evolved the cerebral equipment to cover over the "real" world with colorful and inspiring "lies" that give meaning to our lives and the universe. ¹³ Consequently, the capacity for deception and self-deception must be nourished, not eliminated, if we hope to survive as a species.

Earlier Otto Rank and his disciple Ernest Becker—in opposition to Freud—had maintained that in order to maintain our psychic equilibrium we humans have to create "vital lies" by which to live. Otherwise we will fall into psychic illness. Apparently it is just those who are courageous enough to look at reality nakedly and without illusions who will be most prone to psychosis. The healthy-minded among us should give thanks for our species' capacity to evade truths that would surely sicken us if we looked straight at them.¹⁴

Thus the new Darwinian anthropologists are not the only interpreters of religion to have worshipped privately at the shrine of naturalistic objectivism while publicly tolerating a less severe devotionalism for the herd of humanity on the other. A kind of neo-Catharist tolerance of "fiction for the fortuneless" is the accommodating posture of the new brand of critique. The truly enlightened and courageous among us will now take pride in realizing that we have at last—especially with Darwin's help—looked into the emptiness of the cosmos without blinking. Now that we know that we had been tricked into our false states of belief by the crafty evolutionary mechanism of gene-survival, perhaps we can look for more realistic reasons to go on with our own lives. Of course, this may not be easy. If the biologists of religion are correct, then, as Holmes Rolston, III has put it, the scientifically minded among us, "those who get it right" and have to face the truth, are most

likely to be disabled, "and those who continue the traditional mythologies, and get it wrong, will outproduce them." Meanwhile, though, out of compassion for our fellow humans we should tolerate, and in Rue's opinion even encourage, their persistence in vital lies that will propel the human gene pool into the indefinite future.

A Polanyian Perspective on "Deep Darwinism"

Let us call the proposal expressed by Burkert, Boyer, Rue and others "Deep Darwinism," since it claims that we can gain no more profound understanding of all manifestations of life, including human ethics and religion, than those provided by the evolutionary idea of reproductive fitness. Deep Darwinism contends that we can account for nothing in the life-world, including religion, more objectively and foundationally than in terms of adaptation. Though many of us will initially balk at such a claim, an increasing number of books and academic careers are now dedicated to promulgating it.

The Deep Darwinians will admit that religious people *think* that their stories about the sacred put them in the presence of what is ultimately Real. But the salient evolutionary "discovery" is that all religious ideas, no matter how seemingly realistic, are really fictitious because they ultimately serve the powerful mechanism of gene-survival. This *non sequitur* is usually inexplicit, but it lurks in the background of most evolutionary accounts of religion. It may be called the "if-functional-then-untrue" argument.¹⁷ Holmes Rolston has given a thorough analysis and critique of it in *Genes, Genesis and God.*¹⁸

Beyond this questionable kind of reasoning, however, there are other logical peculiarities in the new Darwinian criticism, as Michael Polanyi's philosophical reflections on the nature of life and human knowing will be able to show. Polanyi's profound understanding of the ineradicably personal character of knowing, and his description of what he calls the "logic of achievement" are especially pertinent to our question as to whether the Darwinian psychologists are telling us the whole story about either life or religion. Deep Darwinism, viewed in Polanyian perspective, may turn out to be rather shallow.

I should say at once that Polanyi would find nothing inherently problematic about an evolutionary or even a gene's-eye perspective on life or any of life's manifestations, including religion. While the joint meaning of life's substituent particulars, including its genetic units, is momentarily lost sight of in any atomizing focal survey, there is always the possibility of arriving later on at richer cognitive integrations as the result of such specification. Hence something useful may be learned about religion through our focusing on the complex genetic history that builds the kind of minds that are able to engage in religious worship. A biological approach may have something very important to teach us about religion.

The interesting issue here, however, is the claim (often tacit but sometimes explicit) by deep Darwinians that a genetic-adaptationist account gives us an *ultimate* explanation of religion, thus making all religious or theological explanations superfluous. In one way or another, of course, the naturalizing of religion has been going on ever since the birth of science, and in a more diffuse way even from the time of Greek and biblical antiquity. But nowhere that I know of has the attempt to understand religion been carried out with more confidence that a purely "natural" explanation of it has finally been reached than in recent writings influenced by evolutionary psychology.

The Darwinian naturalizing of religion not only professes to show that the reality of the *divine* is not a necessary part of the explanation of religion; just as remarkably it has also made the human *subject* itself only incidental to a radical explanation of the persistence of the gods. Though implicitly aware of the intermediary role our brain mechanisms, cognitive systems, subjective thoughts, emotions and desires play in the making of religion, the new biological explanations now formally dispense with human subjectivity or "personality" as far as any truly fundamental account of religion is concerned. Our subjective desires, if we can attribute any significant agency to them at all, are in the service of a much deeper kind of natural striving, that of our genes. It is in the "beyond" of a genetic river flowing out of Eden that we will find the deepest roots of spiritual desire. ¹⁹

From a Polanyian perspective, however, there is always a striking futility in any attempt to objectify, naturalize and depersonalize human knowledge completely: under the pressure of attempted objectification, "personality" does not disappear at all, but keeps showing up—sometimes in twisted ways and strange places. The deep Darwinians, for example, try to *objectify* life, human beings and religions as radically as they can. In accordance with modern naturalistic assumptions, the whole idea of subjectivity remains taboo.²⁰ But, in point of fact, the banished subjectivity is simply displaced from human centers onto impersonal genetic units and processes.

The Deep Darwinians cannot avoid attributing to the domain of allegedly impersonal genes a clearly centered and personal interest, a *striving*, or a "commitment" to achieving a goal—that of survival. And in spite of attenuating comments that they are not attributing personal agency or intentionality to genes in a literal sense, the Deep Darwinians' inability to avoid use of terms like "striving," "cooperation," "success" and "failure" in the struggle by genes to survive, can make sense only if genes are being understood in terms of what Polanyi calls the *logic of achievement*. Contemporary gene-enchanted Darwinism has exiled living beings, including human subjects, from their natural home in the sphere governed by the logic of achievement. Simultaneously it has projected the deracinated attribute of centered striving onto genetic units that both physical science and common sense are normally obliged to consider incapable of any kind of commitments or personal agency whatsoever.

This fiction is important to Deep Darwinians, however, since it allows them to wrest the roots of religion from the murkiness of human personality and to understand spiritual passion as the helpless consequence of a homunculus-like struggle that goes on in the psychologically distant realm of DNA. The dimension "beyond culture" in terms of which they may now "explain" religion in an ultimate way, and without having to posit an ontological horizon of transcendence, is the purely physical realm of nucleotides. In Deep Darwinism the genetic dimension of our being has taken center stage as the foundationally energizing source of the striving that renders us religious.

If we could be assured that the idea of "genes striving to survive" were simply a convenient way of speaking, not to be taken literally, then we might have reason to be less concerned about this dramatic displacement. However, the new Darwinian relocation of centered striving from personal subjects to the impersonal realm of genes is more than an innocent literary device. Matt Ridley's lucid summary of the new evolutionary thinking clearly demonstrates that much more is going on in Deep Darwinian discourse than linguistic playfulness. He observes that a generation ago most biologists would have been quite reluctant to personalize genes, instead viewing them as unconscious and inanimate. But, he goes on,

... in the last few years the revolution begun by [George] Williams, [William] Hamilton, and others has caused more and more biologists to think of genes as analogous to *active and cunning individuals*. Not that genes are conscious or driven by future goals—no serious biologist believes that—but the extraordinary purely logical fact is that evolution works by natural selection, and natural selection means the enhanced survival of genes *that enhance their own survival*. Therefore, a gene is by definition the descendant of a gene that was *good at getting into future generations*. A gene that *does things* that enhance its own survival may be said, *teleologically*, to be doing them because they enhance its survival. *Cooperating* to build a body is as effective a *survival strategy* for genes as cooperating to run a town is a successful social strategy for human beings.²¹ (Note that the italicized words all have to do with *achievement*.)

Ridley's book *The Red Queen* repeatedly attributes to genes activities and intentions that we formerly had associated only with centered (personal) striving. Genes are said to "cooperate," and their main achievement is "survival." "A gene has only one criterion by which posterity judges it: whether it becomes an ancestor of other genes. To a large extent it must *achieve* that at the expense of other genes." It is a mix of cooperation and competition among striving and achieving genes that, according to Ridley, accounts for the evolutionary invention of gender-based behavior. Sex is the outcome of genes devising *strategies* to avoid their demise at the hand of parasites. In a similar way, according to evolutionary psychology, our genes give rise to religious instincts in human vehicles so as to help the genes *succeed* in their own effort toward self-perpetuation.

If genes are "strategizing" and "striving" to survive, then of course they can also "fail" in such endeavors. The point is, we are apparently to understood lifeless and mindless genes in accordance with the logic of achievement. But the logic of achievement—implying the possibility of success or failure—as Polanyi has consistently attempted (often without success) to get across, is simply inapplicable to impersonal processes. Striving, succeeding and failing are attributes logically attributable only to living subjects and personal centers. Indeed it is only because they strive (for a goal), and are therefore subject to failure, that we can recognize living beings as living at all. In the brave new biology, however, life and striving are no longer identifying marks of organisms, let alone human persons. The latter are simply passive mechanisms or "vehicles" of a more fundamental kind of striving. Centered striving is now the defining attribute of genetic monads, or perhaps arrays of genetic units, that can be "cooperative" or "selfish." It is how they behave among themselves that will determine whether they will succeed or fail.

The Deep Darwinians have taken what most cultures and "folk psychologies" call "personhood" and projected it onto the world of genes. This displacement of tabooed subjectivity onto our genes may seem rather inconsequential until we notice that in order to understand religion "objectively" or naturalistically Deep Darwinism must first divest it of almost everything religious people have themselves always thought essential to it. A major fact about religion, after all, is that religious persons are themselves engaged in a most intense kind of striving. At the very heart of religion there is aspiration, hoping, struggling to overcome obstacles. Religious persons and groups strive to find a path through the most difficult obstacles to the continuation of life. It is only because even Deep Darwinians recognize—tacitly and personally—the fact of religious striving and "route-finding" that they are enabled to identify and name the phenomenon of religion in the first place. But in their theoretical "explanations" of religion they ignore as inconsequential the personal striving that allows them to take note of religion at all, relocating all relevant endeavor in the impersonal chemical constituents of genetic processing.

This displacement of "striving" from human persons onto an impersonal flow of genes is a matter of considerable irony. While explicitly *striving* to avoid the embarrassingly "unscientific" use of anthropomorphic projections characteristic of naive religious people, our deep Darwinians lavishly indulge their own proclivity for the very same kind of projection—in this instance projection of subjective striving onto the "beyond" of impersonal nature. Thus they end up attributing to mindless genes the very human subjectivity that they first subtracted from *us* in order to view our religiousness "objectively" or "naturalistically." But in *subjectifying* our genes the scientists have put themselves in a situation where *objective* knowledge of the coveted realm "beyond culture" remains logically inaccessible after all. If genes are centered, striving *subjects*, then objective, impersonal (scientific) knowing could never penetrate to their inner reality. The quest for objective knowledge of the roots of religion ends, then, in the aporia of DNA's own supposed subjectivity. Like our hunter-gatherer ancestors, the Deep Darwinians' own predator detecting cognitive systems appear to be hosts to (parasitic?) ideas about hidden subjective agencies, namely genes, that can explain the puzzling persistence of religion.

Meanwhile the Deep Darwinians themselves keep striving. For what? Perhaps for truth? Perhaps to deliver religious persons of the conviction that their beliefs have anything to do with what is ultimately real? Whatever their objective, the point is that the Deep Darwinians are in any case *striving*. And like all striving, theirs also confronts the possibility of failure. In fact, if Polanyi is correct, their attempts to give an ultimate explanation of why gods persist is rooted in the habitual failure of modern thought to welcome subjectivity *explicitly* into the sphere of true being, and personality into the heart of genuine knowing.

Conclusion

Once again, I am not claiming that Darwinian explanations of religion are devoid of illuminating merit. I believe that neo-Darwinism, including evolutionary psychology, may be one layer in a whole hierarchy of explanations needed to account for religion richly. But for all we know, another important dimension of a fertile explanation of religion may be the one that religious persons themselves have given, namely, that "the sacred" has in some way (sacramentally, mystically, apophatically) broken into their awareness.

Acknowledging the reality and power of the sacred would not rule out an explanatory pluralism that gives ample room to Darwinian accounts as well. Indeed it would only make the human quest for ultimate reality all the more fascinating. A suitable theological method will make ample room for whatever light biology can shed on religion. For example, we may assume that a human response to the sacred would in some way promote the cause of gene survival, and that our genetic endowment disposes us to be religious. If religion had not been genetically adaptive, at least in a general way, we would not be here. And if our genes had been configured in some completely different way—for example like an alligator's—we would not be religious. All of this goes without saying.

What is questionable are three claims commonly made by our Deep Darwinians. The first is that genes themselves can be personal centers of striving and, therefore, themselves subject to success or failure. The fact is that genes do not really strive at all, and so they are not appropriately understood in terms of the logic of achievement as implied in recent Darwinian discussion.

The same must be said, incidentally, of the atomic cultural units that some evolutionists refer to as "memes." Memes, according to Richard Dawkins, the inventor of the term, are virus-like bits of information such as tunes, ideas, catch-phrases or fashions that allegedly make their way from one mind to another. ²⁵ Like genes they are said to be self-replicating units, only of culture rather than biological traits; and, consistent with Dawkins's understanding of genes, they are held to have a life of their own. That is, they are portrayed as centers of striving such as we associate with living organisms. Memetics, like genetics, however does not belong to the sphere of the logic of achievement, though this is where its advocates typically place it.

The second questionable assumption of the Deep Darwinians is that once we have (naturalistically) detected the hidden genetic stratum that allegedly underlies the persistence of the gods, we have arrived at the ultimate explanation of religion and in doing so divested all religious teachings of any plausible claims to truth. What is problematic here is both the if-functional-then-untrue argumentation and the arbitrary substitution of a single-level (physicalist) approach for a rich hierarchy of explanations.

Third and finally, the Deep Darwinians' own unmasking of religion ends up unmasking itself. Their own agency-detecting systems (presumably employing the same cognitive mechanisms that arose by selection for predator detection thousands of years ago) leads them, no less than their religious ancestors, to look for what lies *hidden* beyond appearances. They start out also looking for a hidden agency, one that will "explain" religion. And they end up locating this agency in a fictitious realm of subjectivity (that of selfish genes) which, when it comes right down to it, is no less inaccessible to objectifying comprehension than the explanations given by religious persons themselves.

Endnotes

- ¹ Michael Ruse and Edward O. Wilson, "The Evolution of Ethics," in James Huchingson, ed., *Religion and the Natural Sciences* (New York: Harcourt Brace Jovanovich, 1993), 308-11. See also Matt Ridley, *The Origins of Virtue* (New York: Penguin Books, 1996).
- ² Two recent books on religion deeply influenced by Darwinian biology are Robert Hinde, *Why Gods Persist: A Scientific Approach to Religions* (New York: Routledge, 1999); and Michael Shermer, *How We Believe: The Search for God in an Age of Science* (New York: W. H. Freeman & Co. , 2000).
- ³ George C. Williams, *Adaptation and Natural Selection: a Critique of Some Current Evolutionary Thought* (Princeton, N.J.: Princeton University Press, 1996); William D. Hamilton, "The Genetical Evolution of Social Behavior," *Journal of Theoretical Biology* 7 (1964), 1-52; John Maynard Smith, *The Evolution of Sex* (New York: Cambridge University Press, 1978).
- ⁴ Robert L Trivers, *Social Evolution* (Menlo Park, CA: Benjamin Cummings, 1985); Richard D. Alexander, Darwinism and Human Affairs (Seattle: University of Washington Press, 1979).
- ⁵ Alexander, *Darwinism and Human Affairs*, p. 38.
- ⁶ See *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, edited by Jerome H. Barkow, Leda Cosmides, John Tooby (New York: Oxford University Press, 1992).
- ⁷Walter Burkert, *Creation of the Sacred: Tracks of Biology in Early Religions* (Cambridge, Harvard University Press. 1996). A parallel argument is given by Robert Hinde, *Why Gods Persist*.
- ⁸Pascal Boyer, *Religion Explained: The Evolutionary Origins of Religious Thought* (New York: Basic Books, 2001).
- ⁹ Boyer, *Religion Explained*, p. 145.
- ¹⁰Michael Shermer interprets religion as the product of the need to see patterns in the universe. See his book *How We*

Believe.

- ¹¹Loyal Rue, By the Grace of Guile: The Role of Deception in Natural History and Human Affairs (New York: Oxford University Press, 1994), pp. 82-127.
- 12 Rue, By the Grace of Guile, pp. 125-26.
- 13 Rue, By the Grace of Guile, pp. 261-306. After insisting that only nihilism can be true, Rue arrives at the following breathtaking conclusion to his book: "... it is now for us to thank the nihilists and to send them on their way. We have a story to tell." And what is this (admittedly untrue) story that we need to tell if we are to survive? Rue answers: "Biocentrism is your story and mine. It is everybody's story. It presumes to tell us how things are and which things matter. It is, nevertheless, a lie. It is a lie because it is not nature's own story, not told by the earth, not the authorized version. It is merely a tale told by humans, full of contingency and distortion, signifying hope. But it is a noble lie, one that washes down with a minimum of deception and offers up a maximum of adaptive change. And if it is well and artfully told, it will reenchant the earth and save us from the truth." One can only ask whether Rue is asking us to accept as true what he has just told us.
- ¹⁴ Ernest Becker, *The Denial of Death* (New York: The Free Press, 1973). "The neurotic opts out of life because he is having trouble maintaining his illusions about it, which proves nothing less than that life is possible only with illusions." (p. 189). Becker quotes Rank also as saying: "With the truth one cannot live. To be able to live one needs illusions [T]his constantly effective process of self-deceiving, pretending and blundering, is no psychopathological mechanism ..." (pp. 188-89).
- 15 Holmes Rolston, III, *Genes, Genesis and God: Values and Their Origins in Natural and Human History* (New York: Cambridge University Press, 1999), p. 339.
- ¹⁶Whether Deep Darwinism can also provide logically coherent grounds for the assumptions made by Deep Darwinism itself is an interesting question. Can the evolutionary psychologist coherently naturalize human culture without sabotaging the authority of Darwinism itself?
- ¹⁷See Rolston, Genes, Genesis and God, p. 347.
- ¹⁸ Ibid. pp. 335-70.
- ¹⁹ The reference here is to the title of a book by Richard Dawkins, *River Out of Eden: A Darwinian View of Life* (New York: Basic Books, 1995).
- ²⁰See Alan Wallace, *The Taboo of Subjectivity: Toward a New Science of Consciousness* (New York: Oxford University Press, 2000).
- ²¹Matt Ridley, *The Red Queen: Sex and the Evolution of Human Nature* (New York: Penguin Books, 1993), pp. 92-93. (Emphasis added)
- ²²Ridley, *The Red Queen*, p. 94. (Emphasis added)
- ²³Ridley, The Red Queen, passim.
- ²⁴ John Bowker, *Is Anybody Out There?* (Westminster, Md.: Christian Classics, Inc., 1988), pp. 9-18; 112-43.
- ²⁵ Richard Dawkins, *The Selfish Gene* (New York: Oxford University Press, 1990).

Heuristic Passion And Universal Intent: A Response To George R. Hunsberger

Richard Gelwick

[**Editor's Note:** See Richard Gewlick's "Christian Faith In A Pluralistic Society" (*TAD* 27:2, 39-45) and George R. Hunsberger's "Faith and Pluralism: A Response to Richard Gelwick" (*TAD* 27:3, 19-29) for the earlier discussion of Newbigen's theological ideas and use of Polanyi, which this essay supplements.]

ABSTRACT Key Words: Michael Polanyi, Lesslie Newbigen, George R. Hunsberger, Charles McCoy, theology of plurality, science and theology, world religions, heuristic passion, universal intent, biblical doctrine of election, covenant and federal theology.

Despite Hunsberger's apology for Newbigen's use of Polanyi, Newbigen in The Gospel in a Pluralist Society reverses Polanyi's essential elements of heuristic passion and universal intent. The outcome is a misunder-standing of the common ground and differences between science and theology and a stifling and narrowing theology of cultural plurality. In contrast, Charles McCoy's federal theology and understanding of Polanyi shows an approach of openness yet grounding in the biblical God present in the believed-in realities of global life.

My attempt to review¹ Lesslie Newbigen's *The Gospel in a Pluralist Society* and George R. *Hunsberger's Bearing the Witness of the Spirit, Lesslie Newbigen's Theology of Cultural Plurality* has evoked a response from Hunsberger that deserves a reply. Before addressing some of our differences, I would like to say that I am glad that he thinks I "captured" many of the "essential lines" of Newbigen's thought and that "there is much that" I get "right." However, Hunsberger's compliments are more than balanced by his criticisms of my not getting "nuances," having wrong order or emphasis, and misrepresenting Newbigen's position. My six pages of review for the two books led Hunsberger to ten pages of response. So I have asked for a little more space.

There are two elements in Polanyi's epistemology that affect my view of Newbigen's use of Polanyi and also my concerns about Newbigen's and Hunsberger's approach to a theology of plurality. These elements are heuristic passion and universal intent. These elements will further suggest why Newbigen, Hunsberger, and any theology of plurality need to consider both the role of discovering new aspects of reality and of how they bear on the wider reality shared by other knowers.

With regard to heuristic passion, Polanyi elevated to a central place in epistemology the role of discovery². Humans belong to a "society of explorers" and are driven by intellectual passions⁴ that lead to both errors and to discoveries. Though fallible, the human risk of seeking the truth and stating our findings is the way we make contacts with reality that form the understandings by which we live.

The other element, universal intent, complements the drive of our passion for contact with reality.⁵ Polanyi shows that universal intent works within the personal structure of commitment. Universal intent helps us avoid mere subjectivity and to seek knowledge of an independent reality that can be known by others. Universal intent guides our passions toward the ever-advancing horizons of human knowing. These two elements for Polanyi are not accidental or elective. They are intrinsic to all human achievements of knowledge about reality.

My reviewing Newbigen's and Hunsberger's renderings of Polanyi did not bring these two elements into prominence though they were implicit in my thinking. My criticism tried to focus briefly on what Newbigen and Hunsberger did with Polanyi. Here I applauded their positive contributions of taking up with Polanyi the way relativism and the ideology of pluralism have intimidated Christian faith and other religious faiths. My two criticisms questioned Newbigen's use of Polanyi to put Christian faith on a factual basis comparable to empirical science and Newbigen's and Hunsberger's dearth of theological revisioning from their encounter with the pluralities of religions and of cultures. These two criticisms spring from the way heuristic passions and universal intent are so much a part of Polanyi's epistemology.

Heuristic Passion

Taking up again the first of these criticisms, how science and theology relate in a Polanyian approach, Hunsberger does not see that Newbigen is contradictory to Polanyi's differentiations about the way science and religion function in a fiduciary framework. I contend that Newbigen seeks an authority in the public square to give confidence to Christian mission and evangelism that is like science. My comment on Newbigen was that he seemed to miss Polanyi's differentiation between science as verification and theology and religion as validation. Newbigen opens *The Gospel in a Pluralist Society* with strong statements about the way our pluralist society has led to relativistic outlooks. These relativistic outlooks borne out of an ideology of pluralism have disestablished the authority of the Bible and of Christian teaching. He says:

The Bible became the book through which the life of the soul, the interior life, the spiritual life was interpreted – at least for those who were content to remain under its influence. It could not hold its own in the public sphere. Scientists and philosophers were no longer theologians and biblical scholars. The catechism could no longer be part of the curriculum in the public schools. There could be what are called "religious studies" because religion is a fact of human life. But the things which religious people believe in are not facts in that sense. Only what can stand up under the critical examination of the modern scientific method can be taught as fact, as public truth: The rest is dogma. One is free to promote it as personal belief, but to affirm it as fact is simply arrogance. How, in this situation, does one preach the gospel as truth, truth which is not to be domesticated within the assumptions of modern thought but which challenges these assumptions and calls for their revision?⁶

Some of this statement concurs with Polanyi's view that the modern scientific outlook as based on an objectivist epistemology has undercut the values of our society. Unlike Polanyi, the statement also suggests a nostalgia for the past of Christian dominance of our culture.

This difference between Polanyi and Newbigen begins to appear sharper a few pages later when it seems that Newbigen's theology of plurality wants a status for Christian establishment in public education. Speaking of the separation of church and of state in the United States and the teaching of religion in the public schools, Newbigen says:

There is a legally enforced division between what is called science and what is called religion. The one may be taught as public truth, the other may not. To teach that humans exist as the result of the successful elimination of the weaker species by those which have accidentally inherited superior strength is allowed. To teach that human beings exist to glorify God and enjoy him

forever is not allowed. Yet both of these beliefs refer to what is believed to be true for all human beings. They are both—if true—extremely important. Both of them are affirmations about what is the case. One is held to be a matter of objectively true facts, even though Darwinian theory is obviously incapable of proof; the other is held to be a matter of private opinion. It may be taught in churches which are voluntary associations of those who choose to belong to them; it may not be taught as part of public truth.⁷

This statement shows in Newbigen a tendency to assume a univocal meaning between the truth claims of science and the truth claims of theology and of religion. It is a view that could support the teaching of "creationism" as science in the public schools.

This tendency appears in Newbigen's references to "the fact of Christ" and his references to his communicating the gospel as witness to "the happenedness" of Christ. He ignores the obvious difference between facts of science established by the work of the scientific community and accepted by the larger consensus of the public and the norms of the Christian community and other religious communities.

Hunsberger tries to deny this as my mistaken reading and says:" I am not sure Newbigen can be found anywhere saying that 'objectivity in the public square' is what he seeks or proposes." Yet Newbigen says when contrasting today the authority of science and of statements about Christian belief "How, in this situation, can Christians affirm their statement as public, factual, objective truth?"

Several pages later, Newbigen shows the parallels between the role of faith and of tradition in science and in Christian belief to justify a Christian confidence that they are both in pursuit of truth about reality and God. Newbigen then concludes that the differences between science and theology seem to be only that science is a tradition of "human learning, writing, and speaking" and the Christian community is a tradition of "witness to the action of God in history, action which reveals and effects the purpose of the Creator." Newbigen's lack of grasp of the significant difference here also appears in Newbigen's objection to the teaching of religious studies instead of the catechism in public schools. 11

Hunsberger tries to redeem Newbigen from his difficulty with a much better statement: "Thus Newbigen demonstrates a companionship of scientific and religious knowing and faith –companionship, not identity – by which Christians can recognize in such faith as theirs not mere subjective opinion but a faith which may be held with confidence and which can be publically attested, with humility, by action and speech." ¹²

It would be much better if this statement of Hunsberger were consistently true of Newbigen. To me it seems that Newbigen has two messages. One is that he wants Christian faith to have the factual authority of science. The other is that Christian faith is the telling of the biblical story with the universal intent that others will discover its factuality and truth and join this community of believers. In this discrepancy between "be like the authority of science in the public square" and "be a part of a community of Christian faith," Newbigen fails to distinguish well between the nature of knowing in science and in theology.

Involved in this is Newbigen's lack of heuristic passion for science's achievements such as the theory of evolution and for the great world religions. In these cases, he does not show an openness to other views of reality. The heuristic passion to make new contacts with reality seems stifled in Newbigen's and Hunsberger's thought. Newbigen's experience with other cultures and religions does not seem humble or open. We learn most about

their deficiencies and short comings.

In studying as a missionary one evening a week with the Ramakrishna Mission in India, Newbigen found that their Christmas Day worship "was not a step toward the conversion of India" but a "cooption of Jesus into the Hindu worldview." Elsewhere, Newbigen contrasts the religions originating in the Indian subcontinent with the historical religions of Judaism, Christianity and Islam. He sees the Indian religions as conveying truths that can be gained apart from the historical story of their founders, meaning they have no historical events of divine revelation. Judaism and Islam though religions of divine revelation are virtually ignored except for Israel as part of the story of Christianity, and Islam as unlike Jesus in prescribing a book of teachings. In contrast to other religions, Christians have in the Bible the "secret" to the meaning of universal history. He was a mission of the story of universal history.

Missing in Newbigen's encounters with other cultures and religions seems to be recognition that these are also believers in the Polanyian sense that all knowledge is based on faith. As believers, whether secular or religious they have experiences bearing on reality, too. This seems to undermine the triangular model of gospel-culture, gospel-church, and church-culture because the other faiths or outsiders cannot be a real part of the interaction except by accepting a privileged view of the gospel already held. This model of interaction looks like what Newbigen and Hunsberger intend to be openness and a dynamic understanding of the gospel. Newbigen often calls for the gospel to be the standard by which all our standards and plausibility structures are called into question and transformed. The difficulty is that while it calls for indwelling the Biblical story, it presumes a Biblical story defined by their view of the Biblical doctrine of election.¹⁶

Many theologians would agree that the Biblical story is a specific historical story yet as a living story always renewing and speaking through the worship, study, life, and interaction of Christians with the world. As Newbigen himself tries to refute many theologians open to other religions, ¹⁷ he exhibits the serious dissent from his view of the Christian faith. In summary of his views against other Christian theologians and the relation of Christian faith to other religions, Newbigen classifies his views in three ways: 1) exclusivist in affirming "the unique truth of the revelation in Jesus Christ" but…not exclusivist in the sense of denying the possibility of salvation of the non-Christian, 2) inclusivist in not limiting the saving grace of God to the members of the Christian church, but exclusivist in rejecting the non-Christian religions "as vehicles of salvation," 3) pluralist in "acknowledging the gracious work of God in the lives of all human beings," but rejecting "a pluralism which denies the uniqueness and decisiveness of what God has done in Jesus Christ." ¹⁸

The point that Newbigen makes here is my concern, namely, that he is so sure that the Christian faith has no equal among religious traditions and that global unity cannot be achieved by the co-equal relations of the other great traditions.¹⁹ So far as Polanyi's thought is concerned, this outlook seems too closed in terms of heuristic passion about the realities presented in a pluralistic world.

Universal Intent

A major part of Newbigen's apologetic for his theology of cultural plurality is his use of Polanyi's notion of universal intent. When Newbigen makes his truth claims about Jesus Christ as the unique and decisive revelation of God and the Bible as universal history, he defends this against subjectivity by saying:

There is nothing more ultimate than Jesus Christ, through whom all things came to be and in whom all things will find their consummation. Polanyi's answer to the charge of subjectivism

is that while we hold our beliefs as personally committed subjects, we hold them with universal intent, and we express that intent by publishing them and inviting all people to consider and accept them. To be willing so to publish them is the test of our real belief. In this sense missions are the real test of our faith.²⁰

At the level of Polanyi's general argument for personal knowledge, Newbigen's statement seems true to Polanyi. But as Hunsberger said of my reading of Newbigen, the nuances are not quite right. First, Polanyi's notion applies to all truth claims including all religions and non-religious believers. The Muslim and the atheist also speak with universal intent. Second, universal intent does not establish the universality or truthfulness of a claim but points out that our personal sense of truth leads to a belief that our belief has universal implications.

Polanyi's argument allows for errors in judgment and calls for responsibility in our assertions. Further, the test of our beliefs is in their evaluation by further experience and the appraisal by others. Some beliefs may be rejected by their hearers and later turn out to be true as seen in the history of scientific change. This test of the truth of our beliefs becomes still more complex as we move from science to the arts, myths and to religion.

This complexity is why Polanyi made a distinction in *Personal Knowledge* between verification and validation for science and for theology and religion. Polanyi later, with Prosch, tried to clarify this distinction by showing a difference in the epistemic integrations. The "natural integrations" of science are based on observation, and arts, myths, and religion are based on "transnatural integrations."

In this discussion, Polanyi and Prosch show, among other things, that the truth claims of science are different from the truth claims of art, myths, and religion. The creative natural integrations of science that make discoveries can be accepted and later used without our giving a great sense of effort or indwelling. For this reason, these integrations are called "self-centered" integrations in that they involve less of the investment of us in seeing their claims. On the other hand, transnatural integrations, such as in myths and in religion, attempt to speak about meanings far beyond the ordinary and everyday. These integrations take us to extraordinary views.

Newbigen gets this partly right in stressing that one has to indwell the Biblical story through a community. He misses, however, the difference between indwelling when we accept the claims of science and when we accept the claims of a faith tradition. The faith tradition may make no sense in literal terms but it may by its integration of our ordinary lives into a grand story of cosmic meaning carry us to sublime understandings.²³ The demands of this understanding are ones that "carry us away." Both scientists and theologians make claims with universal intent, but the bearings of their claims on reality have great differences. They share a common ground in involving the person in the tacit structure of knowing. Yet their focal awareness is not the same. These differences are ones that make some theologians uncomfortable with Newbigen's use of Polanyi to uphold a theology of cultural plurality that is so confined to the Biblical doctrine of election.

Another View Of Theology And Cultural Plurality

Hunsberger rightly notes that behind my concerns are also theological assumptions that were not clearly exposed in my review. I did suggest that the work of Charles McCoy in *When Gods Change, Hope For Theology*²⁴ provides a different use of Polanyi in the treatment of plurality. McCoy has been one of the principal teachers and researchers in the thought of Michael Polanyi. Not merely because he was my teacher but also because of his personal and scholarly knowledge of Polanyi and because of his offering a paradigm that is more

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responsive to the positive as well as the negative aspects of plurality did I turn to him. In closing, I want to extend this suggestion by showing a few of the possibilities for Christian theology and Christian life in McCoy's approach.

McCoy through a long line of key thinkers including the covenant or federal theologian Johannes Cocceius, H. Richard Niebuhr and Michael Polanyi takes the position that we are all believers in the sense that we all live by faiths that occur in the very process of living. These faiths are about believed-in realities and they may become a part of a life-guiding faith. Since these faiths or faith are about reality, they are also about deity or what persons believe is ultimately true. In our situation, McCoy uses the term pluralism for both the diversity in our cultures as well as for an attitude about this diversity.²⁵

For McCoy, pluralism is not necessarily relativistic. Pluralism (or plurality in Newbigen's terms) can be the encounter with the dynamic presence of God in history that challenges our static and limited outlooks. McCoy sees Christian theology called to respond by learning from these many voices of believed-in reality.

In a comprehensive discussion of where we are in Christian theology, McCoy proposes a covenant or federal way of doing theology. This approach widens the understanding of theology for a global society and for the liberation of persons from the oppressions of exclusivist and of imperialist approaches to other faiths. It sees theology as not just Christian but as "reflection on ultimate commitments governing action."²⁶

In McCoy's view, the Biblical story of a liberating God invites theology to transformation through the covenanting with others who share in pluralism. His trust in the Biblical God as not limited or confined to our past or present formulations appears throughout his book such as in the following statement:

The most sovereign power of our experiencing as Christians is God not only of our history, of Hebrew-Christian history, but of all human histories. In choosing us, God chooses all humanity. The old tension in Hebrew faith between the exclusiveness of our limited loyalty and the inclusiveness of God's unlimited love remains. We live by what we have learned from our ancestors, but we hope also to learn of God from all humans. We do not relinquish the heritage of our faith, but we understand it through the expanding experience of global relationships.²⁷

This approach leads in a different direction to finding through theological exploration a permanent revolution in our believing. It is a trust in the God of Israel and of Jesus as, not human conception, but as the reality that ever challenges and transforms our relationships and understandings.

The theological controversies raised by Newbigen's work involve some of the most basic questions of the 19th and 20th centuries including the interpretation of the Bible, Christology, and the relations of Christian faith and culture. Polanyi certainly has a contribution to make to this discussion, but there is room for debate about how to apply his insights. To me it seems that theology ought to continue what Polanyi saw when he wrote: "Christianity is a progressive enterprise....An era of great religious discoveries may lie before us."²⁸

Endnotes

¹ Tradition & Discovery, XXII, No. 2, 2000-2001, pp. 39-44.

² I emphasize this element in my book, *The Way of Discovery*, New York: Oxford University Press, 1977.

³ Michael Polanyi, *The Tacit Dimension*, Garden City, New York, 1966, pp. 90-92.

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<sup>4</sup> Michael Polanyi, Personal Knowledge, Chicago, University of Chicago Press, 1958, Chapter 6.
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⁵ *Ibid.*, p. 309.

⁶ Newbigen, p. 5.

⁷ Newbigen, pp. 24-25.

⁸*Tradition & Discovery*, p. 24.

⁹Newbigen, p. 40.

¹⁰ *Ibid.*, p. 50.

¹¹ *Ibid.*, p. 5.

¹² Tradition & Discovery, p. 25.

¹³ Newbigen, p. 3.

¹⁴ Ibid., pp. 66-68.

¹⁵ *Ibid.*, pp. 92, 89, et passim.

¹⁶ *Ibid.*, Chpt. 7.

¹⁷ *Ibid.*, Chpts. 13 and 14.

¹⁸ *Ibid.*, Pp. 182-183.

¹⁹ *Ibid*, p. 183.

²⁰ *Ibid.*, p. 126, see also pp. 77, 92, et passim.

²¹ Meaning, Chicago, University of Chicago Press, 1977, pp. 125-126.

²² *Ibid.*, p. 85.

²³ *Ibid.*, p. 157

²⁴ Nashville, Abingdon, 1980.

²⁵ *Ibid.*, p. 48.

²⁶ *Ibid.*, p. 150.

²⁷ *Ibid.*, p. 125.

²⁸Personal Knowledge, p. 285.

Can Theology be Tacit? A Review Essay on *Personal Catholicism*Joseph Kroger

Martin X. Moleski, S.J., *Personal Catholicism: The Theological Epistemologies of John Henry Newman and Michael Polanyi*. Washington D.C.: The Catholic University of America Press, 2000. pp. 222. ISBN: 0-8132-0964-1 (cloth), \$54.95.

ABSTRACT Key Words: Martin Moleski, John Henry Newman, Michael Polanyi, illative sense, tacit knowledge, Catholicism, theology

Martin Moleski summarizes Newman's Grammer of Assent and Polanyi's Personal Knowledge and finds remarkable similarities in their epistemologies, particularly their concepts of "illative sense" and "tacit knowledge". There are, however, problems (particularly in Catholicism) with Moleski's interpretation of the theological significance of the "illative" or the "tacit", as well as ambiguities in the way he relates faith to theology.

Part of the cultural legacy of the scientific age in which we live is the fact that doubt, uncertainty, and tentativeness are considered intellectually respectable while belief, certainty and commitment are looked upon with suspicion. Since knowledge is thought to be limited to what can be clearly specified and objectively demonstrated, it is considered irresponsible to hold any belief or give assent to any truth without being able to provide clear and explicit grounds for doing so. Such is the morality of knowledge in a world governed by the ideals of critical reason.

Martin Moleski's Personal Catholicism examines and compares the work of two unlikely and unacquainted allies in the development of an alternative "post-critical" view of what it means to be rational and responsible in the world today, a view that directly challenges contemporary epistemological assumptions of distrust, objectivity and detachment. John Henry Newman (1801-1890), a convert to Evangelical Christianity, then an Anglican priest and eventually a Roman Catholic Cardinal, characterized his life's work as a confrontation with "religious liberalism". Michael Polanyi (1891-1976) was born a year after Newman died and pursued a career in medicine, physical chemistry and economics, before turning to philosophy to resolve issues regarding the nature and justification of science in a free society. Polanyi converted from Judaism to Catholicism and was later drawn to Protestant thought (specifically that of Paul Tillich), but unlike Newman, he was not personally religious in any traditional sense. What Newman and Polanyi did have in common, however, as Moleski's work makes abundantly clear, was the counter cultural conviction that the path to reliable knowledge proceeds not from doubt or explicit premises, but rather from fiduciary commitments and vague apprehensions. Both were unconvinced by modern forms of rationalism that seemed almost irresistible to most of their contemporaries, and perhaps for that reason, each remained to a certain extent an "outsider" to the dominant intellectual traditions of their day. Newman and Polanyi each began by reacting to the damaging effects of the ideal of instrumental reason on their own specific disciplines (theology and natural science) and ended with nothing less than a radical challenge to the paradigm of rationality itself. They saw, in Moleski's words, that rationality is "greater than logic", and gave persuasive descriptions of the informal operations of the mind which lead from tacit assumptions to true and certain judgments.

Moleski's book is divided into four major parts (preceded by a brief introduction and followed by a personal conclusion, which is also brief but apparently very important since it alone explains and justifies the title of the book). Most of the questions I want to raise concern that conclusion and how it is related to the earlier analysis, but I will begin with an overview of Moleski's project. Parts one and two present chapter by chapter summaries, first of Newman's *Grammar of Assent* and then Polanyi's *Personal Knowledge*. Part three compares Newman's notion of the "illative sense" with Polanyi's idea of "tacit knowledge", the key terms each use to characterize the foundation and the process of rational thought. In part four Moleski discusses what he sees as the significant implications of these converging post-critical perspectives for understanding religion and theology. This is further discussed and personalized in his conclusion.

Newman developed his notion of the "illative sense" in his major epistemological essay *Grammar of Assent*. Moleski locates this text in its biographical context and clarifies its purpose and structure. He then traces the line of argument whereby Newman accounts for the capacity and the legitimacy of holding beliefs to be true even though they can be neither fully understood nor explicitly proven. While the title of Newman's essay suggests that he will provide "rules" for the formation of judgment, Moleski shows that his purpose was precisely the opposite. There are no explicit methods or recipes for the mind to follow mechanically in its pursuit of truth. Rather, intelligence is guided towards the act of assent by an anticipatory and informal "illative sense" that operates in a deeply personal way beyond any technical rules. Thus, Newman argues against the attempt to formalize the conditions of legitimate assent. There can be no higher certitude than that given by the illative sense itself and for this reason all judgments are ultimately acts for which we must take personal responsibility.

In his theory of tacit knowledge, Polanyi provides a similar account of reason and responsibility. Moleski again begins by providing a biographical context for Polanyi's major text and then explains its purpose and structure. *Personal Knowledge* is a long and philosophically challenging work and Moleski's methodical chapter by chapter summary is helpful in focusing on Polanyi's central thesis that all knowledge is personal because all knowledge is rooted in fiduciary commitments which necessarily remain tacit. Polanyi sees knowing as an art, and like Newman, he attends to the role of intellectual passions and creative imagination leading the mind forward in the pursuit of truth. He argues that behind all the formal methods and specifiable procedures of scientific inquiry lie the informal and tacit operations of the scientist's own mind. Explicit logical processes are effective only as tools, and the rational application of such tools is always a personal performance, an act of ultimate self-reliance. Polanyi's goal is to describe and account for that personal performance.

Moleski argues that what Newman calls the "illative sense" and what Polanyi calls "tacit knowledge" are basically the same thing. Both describe an irreducible and transcendental dimension of the intellect. However, according to Moleski, while Newman focused on the *capacity* of the mind, Polanyi was concerned with the *product* of that potency, what Moleski calls "the accumulation of tacit knowledge". (96) This interpretation of Polanyi's epistemology, which sees the tacit dimension in the outcome rather than the initiation of the reasoning process, together with Moleski's insistence on the "essential incommunicability" of reality and ideas (101, 102, 104) are crucial, I believe, for understanding his conclusion, and I will return to this point momentarily. Here, I'll simply observe that in addition to arguing the basic identity of the illative sense and tacit knowledge, Moleski notes the intersection of many other aspects of these two epistemologies: the role of conscience in the formation of judgment, the personal character of intellectual commitment, and the description of knowing as an act of integrating subsidiaries or assembling possibilities. He also points out

the similarity of Newman's and Polanyi's self-reflective methodologies, i.e. the fact that neither attempts a formal proof of the operations of intelligence, but rather invite the reader to consider their own experience and to reflect upon their own intellectual performance in order to discover for themselves the irreducibly personal character of knowledge. Considering their diverse backgrounds and purposes, the convergences that Moleski finds are remarkable.

While his stated aim is to illustrate the similarities of Newman's and Polanyi's insights into the personal dimension of human judgment, Moleski does not gloss over their differences. This becomes especially clear in the fourth chapter where he shows how these two authors arrive at very different theological positions despite similar cognitional theories. Thus, while both Newman and Polanyi allow for an apprehension of the reality of God by an illative sense or tacit powers of thought, as Moleski see it, for Newman faith and revelation are directly related to propositional truth claims of theology in a way that for Polanyi they are not. Despite his use of religious imagery, for Polanyi the reality of God remains in the realm of the tacit, i.e. mystical and inexpressible. Surprisingly perhaps, given the title of the book, Moleski seems to agree with Polanyi rather than Newman in this view of theology.

The major implication for Catholicism that Moleski draws from both Newman and Polanyi in his concluding chapter, where he relates their thought to his own personal commitments, is the need for theology to recognize its own inadequacy. It is important to note that Moleski uses the term "theology" not in the narrow or exclusive sense of "words about God" but in the broader and more common sense of "words about any aspect of one's faith commitment" (for a Catholic that would include God, Jesus, The Holy Spirit, The Church, and many other realities). Moleski makes a sharp distinction (a dichotomy perhaps?) between the personal knowledge a Christian has of God, Jesus Christ, the Holy Spirit, and the Church, on the one hand, and the formal knowledge or propositions of Christian dogma about those same realities, on the other hand. In emphasizing this disjunction of personal religious faith and formal theological reflection, Moleski contrasts two (almost unrelated) forms of knowledge and equates the "illative sense" and "tacit knowledge" only with the former. The result is not only to privilege faith as a tacit way of "knowing more than we can say" but to suggest that the theological task (in any positive sense) is ultimately futile, since theology is incapable of expressing the reality apprehended by faith. Thus, it is the "priority of faith over understanding", (141) and not the relationship of faith to understanding, that Moleski sees as the real theological significance of Polanyi's epistemology. I think this implication follows from Moleski's focus on "tacit knowledge" as a product of the mind. There is little consideration of the view that Polanyi developed after Personal Knowledge when he characterized "tacit knowing" not as a product of the mind but as a process and structure of the mind.

Moleski suggests that the distinction Newman made between the illative sense and formal reasoning and the similar distinction Polanyi makes between tacit knowledge and explicit knowledge reveals just how different faith and theology, as two kinds of religious knowledge, really are. But if his intent is to make an analogy between "faith" and tacit or subsidiary awareness, (on the one hand) and "theology" and explicit or focal awareness (on the other hand), then two problems or ambiguities arise.

The first problem is one of coherence. What exactly are the terms of the analogy? Is it faith awareness that is subsidiary and tacit or is it theological dogma? At times Moleski suggests it is the personal knowledge of faith that is tacit, and inarticulate, what Newman would call an act of the illative sense, or a "feeling" to use Moleski's word. Such faith is always knowing "more than we can tell". Theological knowledge, then, which is articulate and propositional, would seem to correspond to Polanyi's "explicit or

"focal" knowledge and Newman's "argumentative" or "verbal" reasoning. Thus, one Polanyian understanding of faith and theology is that faith is subsidiary knowledge (tacit, informal, unexpressed) and theology focal knowledge (explicit, formalized, articulate). Theology attends from a faith it can never adequately or fully express. Yet, in his concluding chapter, Moleski shifts the terms of the analogy. Here he speaks of the "dogmatic propositions" of theology or "the articulate dimension of revelation" as being "subsidiary". Rather than considering doctrine the "focal" or explicit dimension of religious knowledge, then, Moleski cautions against a "focus" on these "subsidiary elements". Does this mean that Moleski now considers faith to be the focal dimension and theological doctrine to be the subsidiary? This would seem to rule out completely theology as a form of critical reflection. It is one thing to say that theology is rooted in a-critical faith awareness, but it is quite another to say that there is no role at all for critical reflection in theology.

The second problem I have with Moleski's interpretation of Polanyi concerns not so much the issue of how different these two kinds of knowledge (the tacit/subsidiary and the articulate/focal) are, but rather the question of their mutual exclusiveness. Rather than describing explicit theological knowledge as grounded in tacit faith awareness, as Moleski describes them, theology and faith are at odds with one another. "The faith that can be put into words is *not* the real faith. . . . The God that can be put into words is *not* the real God." (182) "The Jesus who can be put into words is not the real Jesus." (184). Does this mean that the tacit, inarticulate and deeply personal faith knowledge that a Christian has of Jesus Christ is "real" while the explicit, articulate and theological knowledge that arises from that faith is not real? As faith seeks understanding and expression does it move away from reality? In the Tacit Dimension, (a work which Moleski does not discuss at length), Polanyi describes the structure of tacit knowing. There he speaks of the functional aspect of tacit knowing as a "from-to structure", and describes how one dwells-in and "attends from" a tacit or subsidiary awareness in order to break out and "attend to" an explicit or focal awareness. (TD p. 10) As a theological illustration of this one might say that a Christian dwells-in and attends from an inchoate faith knowledge in order to seek a more explicit or focal theological understanding. Anselm's classic expression "fides quarens intellectum" seems to express this well. However, in describing what he means by personal Catholicism, Moleski rejects the analogy of "breaking out". (180) Does this mean one simply continues to accumulate a reserve of tacit knowledge that is "essentially incommunicable" and will never be able to be expressed and shared? Further, when Polanyi speaks of the *ontological aspect* of the structure of tacit knowing, (TD p. 13) he does not consider (as Moleski does?) the explicit or focal pole of knowledge to be empty of reality. Quite the contrary, Polanyi could hardly say that the tacit or subsidiary awareness from which we attend is real, and the explicit or focal awareness to which we attend is not real. Were that the case, the from-to structure of tacit knowledge would lead away from reality rather than toward a discovery of reality. To claim that any object of faith whatever (God, Jesus, the Holy Spirit, grace, the church, salvation, the sacraments, morality, etc.) when put into words is not the reality apprehended by faith would be to advocate an apophatic or negative theology in the extreme.

For the sake of discussion I would suggest an alternative interpretation of the theological significance of Newman and Polanyi based on the view that the "illative sense" and "tacit knowledge" describe an intellectual process (not only in theology but in any field) that *begins* with a faith commitment and *culminates* in articulate propositions or truth claims. So understood, the illative and the tacit would refer *not* to inarticulate "faith-awareness" in contrast to articulate "theological doctrine", *but* rather to the *reasoning process* that moves from the former to the latter. To put this point in the classic terms of "fides quarens intellectum", Newman's "illative sense" and Polanyi's "tacit knowledge" account neither for the "fides" (faith) nor for the "intellectum" (dogma), but rather describe the "quarens", the practice of inquiry itself. This

interpretation assumes, however, that Polanyi was not concerned with describing tacit knowledge as a *product* that accumulates over time, but rather as a presupposition or foundation for an activity of discovery that leads from tacit awareness to explicit knowledge. Theology could be described then not so much as tacit *knowledge* but as tacit *knowing*, an on-going process of attending from a particular faith tradition to a focal expression of rationality that has universal (i.e. catholic?) intent. Knowing (in theology as in any other discipline) could then be seen as an activity that leads not *away from* reality but *toward* reality.

Electronic Discussion List

The Polanyi Society supports an electronic discussion group exploring implications of the thought of Michael Polanyi. Anyone interested can subscribe; send e-mail to Struan Jacobs (swjacobs@deakin.edu.au) who is the moderator. The address for the list is polanyi-list@deakin.edu.au

Submissions for Publication

Articles, meeting notices and notes likely to be of interest to persons interested in the thought of Michael Polanyi are welcomed. Review suggestions and book reviews should be sent to Walter Gulick (see addresses listed below). Manuscripts, notices and notes should be sent to Phil Mullins. Manuscripts should be double-spaced type with notes at the end; writers are encouraged to employ simple citations within the text when possible. MLA or APA style are preferred.; because the journal serves English writers across the world, we do not require anybody's "standard English." Abbreviate frequently cited book titles, particularly books by Polanyi (e.g., *Personal Knowledge* becomes *PK*). Shorter articles (10-15 pages) are preferred, although longer manuscripts (20-24 pages) will be considered. Consistency and clear writing are expected.

Manuscripts normally will be sent out for blind review. Authors are expected to provide a hard copy and a disk or an electronic copy as an e-mail attachment. Be sure that electronic materials include all relevant information which may help converting files. Persons with questions or problems associated with producing an electronic copy of manuscripts should phone or write Phil Mullins (816-271-4386). Insofar as possible, *TAD* is willing to work with authors who have special problems producing electronic materials.

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How "Catholic" Is Personal Catholicism?

John V. Apczynski

ABSTRACT Key words: Martin Moleski, Michael Polanyi, John Henry Newman, *Personal Knowledge*, personal commitment, knowledge, nature of theology, existence of God

This review essay argues that the emphasis on the personal commitments sustaining all knowledge, while permitting some fruitful insights into structural parallels between Newman's and Polanyi's epistemological positions, finally is not fully satisfactory for developing a theological program. Moleski's effort to develop such theological insights may be advanced if it were supplemented by incorporating a more detailed structural analysis of the illative sense and of tacit knowing.

Any attempt to portray accurately the basic thrust of Michael Polanyi's theory of knowledge requires that the interpreter develop an angle of vision through which Polanyi's view may be systematically elaborated. This tactic is desirable so that the "overall coherence" of Polanyi's position may be discerned and then expanded or developed. It provides a frame of reference within which the evolution of Polanyi's thought as it was developed in the course of his writings might be approached in an integrated fashion. Thus, for example, the major studies by Richard Gelwick and Harry Prosch present Polanyi's theory under the patterns of the process of discovery and of a therapeutic healing of the intellectual ills besetting Western culture, respectively. In his major new study, *Personal Catholicism*, Martin Moleski interprets the fundamental thrust of Polanyi's theory from the vantage point of the role of personal commitments in the upholding of all our knowledge. The feature of "commitment" functioned very prominently in *Personal Knowledge*, before Polanyi had developed his later elaboration of the "structure" of tacit knowing (although all these features, as Marjorie Grene has persuasively argued, were already informally present in this earlier work).

Very likely Moleski adopts this hermeneutical stance because his larger aim is to explore Polanyi's theory of personal knowledge in light of John Henry Newman's understanding of the illative sense. He begins with two complementary chapters, which place the epistemological reflections of Newman and Polanyi within their respective biographical and historical contexts. In Newman's case, the issue concerns his effort to explain his conversion to Roman Catholicism. In contrast to the demand for strong evidence to serve as a foundation for all judgments of certitude, Newman pointed to the informal working of the "illative sense" of a person making judgments in concrete matters, including the certitude expected in cases of fundamental commitments. In the case of Polanyi, the problem involved Polanyi's conviction that science, and by extension all forms of knowing, were grounded in personal commitments, many of which the knower could not even articulate. The emphasis here is on the importance of the fundamental commitments sustaining every judgment, which Polanyi elaborated in *Personal Knowledge*. Since in both cases the focus is on the personal accreditation of fundamental claims, these chapters do not quite function as full-fledged introductions to Newman's or Polanyi's epistemologies. Rather their work is used to provide a conceptual framework supporting Moleski's understanding of the necessity of personal commitment as the basis of all knowing, including, of course, religious faith.

Hence, the major purpose of this comparative exposition is to defend the necessity of faith for upholding our fundamental convictions in our "post-critical" age and then to develop implications for the

theological task, illustrated with concluding examples drawn from the Roman Catholic theological community. When Moleski addresses the specific issue of the personal grounds of our knowing, his comparative strategy provides some helpful insights. For example, the way in which Newman subtly explores how the illative sense allows a person to judge the outcome of a cumulation of probabilities with certitude whereas if taken singly in isolation they would not is nicely illumined by Polanyi's notion of the tacit integration of subsidiaries (125-6). In cases such as this one, where the patterns of knowing uncovered by Newman and Polanyi are juxtaposed, Moleski helpfully advances the reader's understanding of the role of personal judgment in sustaining fundamental commitments.

Nevertheless by situating Polanyi's understanding of knowing within this interpretative framework, Moleski opens his theological application to consequences that are ambiguous and, in my estimation at least, unsatisfactory. His emphasis on the unformalized and unformalizable commitments that regularly ground the concrete act of knowing, without formally contextualizing the structure of tacit knowing within the forms of bodily, linguistic, historical, and cultural indwelling, tends to leave the impression that knowing is fundamentally arbitrary or capricious. Note well that this is decidedly not Moleski's intention, since he clearly observes how Polanyi places the act of tacit knowing within the context of intending a reality beyond the knower (116). The problem is that these structural elements of Polanyi's theory of tacit knowledge are simply acknowledged without being sufficiently incorporated into Moleski's overall position. For Polanyi, the "self-set standards" by which a person responsibly affirms an aspect of reality are embedded in a rich textured web of patterns of indwelling so that these standards are never simply private or isolated. Again, while Moleski acknowledges this, his emphasis on the personal judgment creating the grounds of knowing obscures this crucial dimension.

These unsatisfactory consequences emerge in the final chapter where Moleski develops his personal version of a post-critical theology derived from his appropriations of Newman and Polanyi. A preliminary ambiguity emerges when Moleski discusses Polanyi's "theology" - even though he acknowledges, as most students of Polanyi would, that Polanyi does not really propose a theology in his writings (141-3). I suspect that Moleski here is conflating Polanyi's personal belief in God (or lack thereof) with his ruminations about Christianity. Should one suppose that Polanyi had no (or at best a highly attenuated) belief in God, it would be fair to conclude that his statements about religion are not grounded in any kind of "real assent" insofar as his personal commitments do not open him to the transcendent reality to which the religious statements might presumably refer. (Such a supposition could be supported by noting Polanyi's typical reference to matters Christian or religious in the third person, not in the first.) I think that this is the sort of point Moleski is making when he declares that Newman and Polanyi constructed dissimilar theologies (143). But even if Polanyi did not personally accept Christian commitments, why should his "theology" - in the sense of an articulation of a religious tradition - be linked so rigorously to one's personal commitments? Surely, an interested "outsider" (that is, one who does not share in the personal commitments that normally sustain the members of a religious community) might understand and even contribute to a community's theological reflections? Has Moleski's focus on the personal commitments sustaining knowledge obscured this point?

This ambiguity arises again when Moleski interprets Polanyi to deny any real assent to God because he declares in *Personal Knowledge* that the existence of God is not properly taken as a "fact." Certainly this may mean that Polanyi believed that there is no thing "real and external" to the act of worship (148), although I would disagree. (This is, admittedly, a notoriously contentious issue among students of Polanyi.) Nevertheless, should not Polanyi's personal commitments be a secondary consideration for an appropriate explication of his intent on this matter? Might he not be offering, as part of his challenge to logical positivism

in science, his own appropriation of the traditional Christian theological insight into the analogical character of language about God? If we place his observations as a reflection, not of his personal commitments, but on the way the living tradition of Christian worship might function for believers, then "God" would be that toward which all the worshippers' strivings tended, and this could never be appropriately identified as a fact. In a different setting, Moleski actually acknowledges that the concept of "God" may function for Polanyi as the reference to the ultimate context within which everything is to be understood (162). Whence this ambiguity?

There are further examples of these sorts of ambiguities regarding the meaning of revelation and doctrine and their relationship to the teaching authority of the church (155-60), the nature of authority and the papacy (168-70), and the significance of "breaking out" (180-1) and its relationship to the development of doctrine (167). These are all manifestations, in my reading of Moleski's position, of his emphasis on the personal commitments grounding the activity of knowing without paying sufficient systematic attention to the attendant structural elements of indwelling. There are many resources within Moleski's work for moving toward such a clarification. He speaks of a "visionary theology" that may be sustained by "a renovation of a patristic method of theology" (175). What this enticing suggestion points toward is not clear to me. I would propose that it should acknowledge something along these lines: only by means of dwelling in a religious tradition does the personal commitment of faith unfold, and the structural elements of this indwelling ought to be explicitly incorporated into the formulation of a theology; to focus on the personal commitment grounding faith does not present as full an analysis.

This review and recommendation undoubtedly reflect my own personal religious background. Paradoxically, even though Moleski and I share the same background, I have found his emphasis on the personal commitments grounding knowing to be somewhat discordant with this background. The title I have affixed over these ruminations whimsically suggests this. Moleski's choice of a dialogue partner for Polanyi's thought and the specific substance of his theological reflections are thoroughly "Catholic" in character; his emphasis on the personal commitment of the knower, however, I found to be quite "evangelical" in orientation.

Endnotes

WWW Polanyi Resources

The Polanyi Society has a World Wide Web site at http://www.mwsc.edu/~polanyi/. In addition to information about Polanyi Society membership and meetings, the site contains the following: (1) the history of Polanyi Society publications, including a listing of issues by date and volume with a table of contents for recent issues of *Tradition and Discovery*; (2) a comprehensive listing of *Tradition and Discovery* authors, reviews and reviewers; (3) information on locating early publications; (4) information on *Appraisal* and *Polanyiana*, two sister journals with special interest in Polanyi's thought; (5) the "Guide to the Papers of Michael Polanyi" which provides an orientation to archival material housed in the Department of Special Collections of the University of Chicago Library; (6) photographs of Michael Polanyi; (7) five essays by Michael Polanyi.

³ Personal Catholicism: The Theological Epistemologies of John Henry Newman and Michael Polanyi by Martin X. Moleski, S.J. (Washington, D.C.: The Catholic University of America Press, 2000) xxii + 222 pp.

² See her "Introduction" to *Knowing and Being: Essays by Michael Polanyi*, ed. Marjorie Grene (Chicago: The University of Chicago Press, 1969), p. xiv.

Evangelical Catholicism and the Tacit Dimension of Theology

Marty Moleski, S. J.

ABSTRACT Key Words: Apczynski, Kroger, Newman, Polanyi, theology, dogma, Catholicism, tacit knowing, tradition, interpretative framework, General Authority, Specific Authority. Moleski responds to reviews of Personal Catholicism by Joseph Kroger and John Apcyznski. He argues that theology is tacit or rooted in tacit knowledge and therefore cannot be fully articulated. He portrays the Roman Catholic tradition as an interpretative framework that differs from scientific frameworks by being bound to a particular revelation made in history which is then preserved by a Specific Authority.

Let me begin by thanking Kroger and Apczynski for their thoughtful and attentive reading of *Personal Catholicism*. Their remarks have helped me to recognize afresh both how valuable it is to use post-critical epistemology to explore religious commitments.

Kroger is correct that I glossed over the development in Polanyi's thought from a static image of tacit knowledge to a more dynamic understanding of tacit knowing as a process. It seems to me that the two perspectives are complementary and not contradictory. I regret it if in my enthusiasm for the tacit dimension I have given the impression that there is no value in articulation. Far from it. It is only by articulation that one can say—and communicate to others—that all knowing is tacit or rooted in tacit knowledge. Theology can neither be fully tacit nor fully articulate. It is, like all human intellectual endeavors, embedded in the tacit dimension.

Tacit acts of comprehension and of commitment precede, accompany, and flow from those acts which we can clarify, formalize, focus on, and articulate. In the milieu of the Enlightenment, Roman Catholic theology tended to adopt Cartesian models of knowing, acting as if faith could be reduced to a handful of propositions that then could be manipulated by formal logic to generate and sustain all of the dogmas of the faith, and then listed in a catechism for believers to memorize. The post-critical philosophy of Newman and Polanyi is a wonderful tonic for the sterile syllogisms of neo-thomism. Their epistemology reminds us that there is much more to thought and things than can be captured by rigorous logic and precise speech. I do not think—and never intended to say—that theology is "ultimately futile," only that it is, like all human speaking, limited in its power to render the fullness of what God has given us in the person of Jesus.

Kroger asks, "Is it faith awareness that is subsidiary and tacit or is it theological dogma?" It seems to me that both have tacit and articulate dimensions. Our attention can range widely, now bringing this aspect of faith or theology into focus, now that aspect. The skill of reflecting critically on the faith, like all skills, has both tacit and articulate dimensions. In weighing the value of these two, I think that Polanyi is right to give priority to the tacit dimension: all theology is either tacit or is rooted in the tacit dimension.

For me, it seems reasonable to say that a part is not the whole. Thinking and speaking of faith, God, Jesus, or myself causes me to focus, for a moment, on one aspect or another of much larger realities. It seems important to me to remember that the part of faith or reason that I can put into words is not the whole of faith or reason. We always see more than we can say, and it is from the seeing, the tacit act of comprehension, that

all speaking draws its meaning. Words do not make contact with reality; people do. Contact with the realities of faith is first and foremost a tacit act, and only secondarily something that can be formalized and organized through the skills of theological analysis. Even as I speak of one aspect of believing, I am tacitly aware of many others which modify the meaning of what I am saying. I cannot express this vision all at once, nor can I ever reduce it to a set of propositions in a system of formal logic. Saying and seeing are always two different kinds of operations, and neither can take the place of the other.

Apczynski says that I tend "to leave the impression that knowing is fundamentally arbitrary or capricious." I reply with Polanyi that "It is the act of commitment in its full structure that saves personal knowledge from being merely subjective" (PK, 65). When we adopt an interpretative framework, we make a disposition of ourselves that changes not only our view of reality, but changes us, too. It is true, as Apczynski suggests, that "an interested 'outsider' (that is, one who does not share in the personal commitments that normally sustain the members of a religious community) might understand and even contribute to a community's theological reflections," but that is a far cry from saying that all theology can or must be done non-committaly.

In writing about personal Catholicism, I had a dual focus. On the one hand, I wanted to appropriate what Polanyi and Newman together teach about personal knowledge. On the other hand, I also wanted to appropriate the lesson taught by evangelical Christianity about the need for a personal relationship with Jesus as the foundation of the Christian life. Roman Catholicism suffers when too much attention is given to its institutions as if they could exist or have meaning apart from personal relationships. It seems to me that theology comes from and should lead back to something other than itself.

It makes good sense to me to think of the Roman Catholic Church as a tradition, an interpretative framework with both tacit and articulate components. As Polanyi rightly notes, the Roman Catholic tradition includes a Specific Authority very different from the General Authority of science. In choosing to dwell in the Roman Catholic framework, I do not expect to be able to break out of it as scientists expect to break out of their existing interpretative frameworks. The discoveries of the faith, in my view, should always lead the believer more deeply into the same reality of the love of God made manifest in Jesus. The developments of dogma as described by Newman are permanent boundary markers for the investigation of what Catholics believe about this foundational, historic event. Scientists, by contrast, do not have a decisive revelation made once in history through the presence of a person. They can repeat observations and duplicate experiments at will. Their investigation does not have the kind of focus and specificity that is present in a religion which holds that "the Word became flesh and dwelt among us." This, I think, is where Newman and Polanyi part company. The goal of the Roman Catholic tradition is to hand on to others what was handed on to us in the deposit of faith. The goal of Christianity in Polanyi's view, as far as I can tell, seems to resemble that of science: to pursue contact with divine reality in an open-ended, non-dogmatic fashion. If Newman is right that God has revealed things to us in Jesus that cannot be known in any other way, then it makes sense to me that revelation should be guarded through commitment to a Specific Authority and to the findings (dogmas) of that Authority. If Polanyi is right, then Christians should operate on the model of General Authority and can freely say whatever they see in their own religious experience without having to draw from or contribute to a particular religious tradition.

REVIEWS

Eric Mount, Jr. *Covenant, Community and the Common Good.* Cleveland: Pilgrim Press, 1999. Pp. xi + 188. ISBN: 0-8298-1355-1. \$19.95, paper.

Inspired by his work with the covenantal ethics interest group of the Society of Christian Ethics, Mount continues to develop themes found in his earlier Professional Ethics in Context: Institutions, Images and Empathy. In this book, Mount sets out "to explore the continuing importance of covenant, community and common good as relational and conceptual framers of moral discourse" (p. 6). In so doing, he identifies places where the covenantal tradition of the ancient Hebrew people converges with the common good tradition of the ancient Greeks. In fact, he concludes that the two traditions nicely complement one another. He observes, "In tandem, covenant and common good work well to offset the pitfalls of excessive individualism and a communitarianism that submerges difference. Covenant takes the common good personally; the common good can stretch a covenant universally" (p. 49).

Mount develops his argument for the continued vitality of these traditions in three stages. In the first (chapters one and two), he examines criticisms of both covenant and common good, acknowledges the rightness of their critics, but points out nuances within the traditions that provide neglected ways of avoiding the criticisms. For example, one criticism made of covenant language is that it can exclude the stranger. Mount observes, "one person's promised land is another's ancestral homeland" (p. 16). Nonetheless, he suggests that hospitality to the stranger, arguably the essence of covenant, provides a push toward inclusivity in covenant that balances a rhetoric of difference. Likewise, common good language is vulnerable to a variety of charges, including the complaint that it leads to abuses of power. Mount admits, "When the powerful define the common good, the powerless are subjected to it" (p. 32), yet argues that the common good nonetheless provides resources for seeing others as "dialogue partners" rather than enemies. In the end, he proposes that the common good should be treated "more as a community *process* than a prearranged principle or a finished product" (p. 34, emphasis mine).

In the second stage of the argument, Mount applies covenant and common good perspectives to a variety of settings in order to display their continued promise. He looks at marriage and sex (chapter 3), work and welfare (chapter four) and global relations (chapter five). On the matter of sexual ethics, he argues that covenant language provides an alternative to what he calls the fundamentalisms of either natural law or biblical rules. Beginning with the vulnerability of the stranger, Mount suggests how someone working out of a covenantal/common good perspective would respond to questions of rape, sexual fidelity and homosexuality, among other related topics. On the matter of work, he demonstrates how sensitivity to covenant themes and concern for the common good can inform a definition of good work, help persons and society balance commitments to work and family, as well as support commitment to the less well-off members of our community. As to the possibilities of global community, Mount explores the possibilities inherent in a growing awareness that the earth is our commons and the growing recognition of universal human rights.

Mount concludes the book by identifying the virtues necessary to live in covenant for the sake of the common good. One is faith, understood as fidelity in relationships with the other. Another is hope, understood as active, patient participation in realizing the common good. The third virtue is love, understood as the compassionate ability to suffer with others and to work for justice. The final virtue is the kind of gratitude for what has been received that leads to public-

spiritedness.

As usual, Mount's writing is irenic and refreshingly easy to follow. The book would therefore be useful for upper level undergraduates as well as church groups. He offers creative and close readings of covenant and common good traditions, thus providing a way of rehabilitating and bringing new life to them. Mount comes off as an optimistic realist in that he does not wistfully long for a past age. He fully recognizes the challenges of individualism to our culture. At the same time, he does an excellent job of highlighting places where covenant and common good language seems to work effectively, thus keeping his work grounded in the practices of real people and communities. work is timely and sensible. It offers a way to acknowledge the strengths while avoiding the weaknesses of thinkers he identifies as classical liberals and sectarian communitarians (see pp. 2-3). Part social analysis and part constructive proposal, rooted in ancient traditions of thought and contemporary social practices, Mount offers an invitation to dialogue in community that is well worth taking up.

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Carlo Vinti, *Michael Polanyi: Conoscenza scientifica e immaginazione creative*. Roma: Edizioni Studium, 1999. Pp. 210. ISBN 88-382-3817-0.

Carlo Vinti is professor of philosophy at the University of Perugia, Italy, and the present volume aims not only at introducing Polanyi to the Italian intellectual scene but is also a critical review situating him in the context of personalist philosophy.

Professor Vinti is well qualified for his task because he was educated in the personalist school of Serafini and Rigobello. He has undertaken an extensive research project on Polanyi's texts and is currently working to computerise archival material from the University of Chicago, which should open up new avenues of research.

The present volume is lucidly written in three parts: first, an introduction to Polanyi's thought that occupies more than a hundred pages; second, the translation of two texts into Italian, namely on creative imagination and on scientific understanding; and third, lines of research for further development. The author's starting point is to place Polanyi within the contemporary discussion on the philosophy of science, contrasting his ideas particularly with Foucault's "death of the subject." He sees Polanyi as having broken through the dualisms between psychology and logic, explanation and understanding, historicism and analysis, and facts and values. He brings out the failures, indeed the misery as he calls it, of a critical philosophy that divides and separates the person possessing knowledge from what he or she knows. He pays close attention to the community aspects of personal understanding in order to show how a commonly held ontology can be achieved in society.

His third section, of only twenty five pages, is a brief but provocative suggestion of work still to be done, of lines of research opened up by Polanyi's philosophy. Issues indicated as requiring attention are the relationship of Polanyi to the following: modern thought in the form of the challenge from the Frankfurt school and post-Popperian epistemology; classical philosophy, especially Plato and Augustine; postneopositivism; the personalist tradition and how it fits with science; neodarwinism and its objections to the idea of levels of reality; the mind-body problem; religious experience and theological reflection; and art, psychology and pedagogy. As can easily be seen, this is a wide ranging, many faceted approach to Polanyi that always returns to the importance of the person as its focal point.

The present small but penetrating volume places Polanyi firmly within the personalist tradition. It will be useful for all who are interested in seeing where Polanyi fits in Continental thought. It has two great merits. First, the exposition in the first part is clear, logical, and philosophically competent in a way well suited to familiarising new readers with the subject. Second, the lines of research suggest horizons still to

be explored. Among Vinti's original insights is his idea that persons can best be described in Polanyi as explorers of the universe, "L'uomo come esploratore" (p. 114-118).

Michael Polanyi is number 28 in the collection Interpretazioni edited by Armando Rigobello. It is satisfying to see that Polanyi has been able to take his place among those the Italians consider the important philosophers of the twentieth century.

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John F. Haught, *God After Darwin: A Theology of Evolution*. Boulder, CO: Westview Press, 2000. Pp. xiii + 221. \$18. ISBN 0-8133-3878-6.

This innovative and daring book is a welcome contribution to the dialogue between Christian theology and the evolutionary sciences. Haught explores the ontological issues that underlie these disciplines and attempts to articulate a doctrine of God as Creator of an evolving universe. He begins by urging us to move beyond both the "intelligent design" arguments (based on classical metaphysics) and the materialist philosophy of many scientists (such as Dennett and Dawkins), because neither of these options offers a suitable *ultimate* explanation of the world. In the second chapter, he describes Darwin's "dangerous" ideas, and notes in chapter three that theology has often responded by ignoring or vehemently denying scientific theories about human ancestors and natural selection.

Haught argues in chapter four that Darwin actually provided theology a gift – the opportunity to rethink the God-world relation in a way that is more adequate to biblical faith, to leave behind the dualism that has plagued theology for centuries. He suggests that the classical "hierarchical" vision of the world, expressed by the "Great Chain of Being" model, does not fit with a molecular and historical view of an evolving universe. Nevertheless, Haught argues in

chapter five that theology may refigure its hierarchical vision by viewing God as the source of information at an abstract level, making logical space for a link between God and an evolving world. He sees the metaphysical intuitions of Teilhard de Chardin and A. N. Whitehead as our best hope for a more adequate ultimate explanation.

Chapter six outlines an alternative metaphysical framework, a "God for Evolution." Here we find the most interesting and promising proposal of Haught's book, a "Metaphysics of the Future." He builds on the work of theologians like Pannenberg, but notes that many discoveries in the science of complexity have also opened up new space for such conclusions. This is central to the book, so let me offer some quotations. "Evolution... seems to require a divine source of being that resides not in a timeless present located somewhere 'up above,' but in the future, essentially 'up ahead,' as a the goal of a world still in the making" (84). "...the novel informational possibilities that evolution has available to it arise from the always dawning future... Evolution is rendered possible only because of the temporal clearing made available when the future faithfully introduces relevant new possibilities" (87). "...all things receive their being from out of an inexhaustibly resourceful 'future' that we may call 'God'" (90). Haught argues that this metaphysics can provide an ultimate theological explanation for the realities of contingency, law and time.

Haught puts his metaphysics of the future to work by addressing one of the most difficult of theological issues in chapter seven, "Evolution, Tragedy and Cosmic Purpose." The well-known problem of evil has rendered the idea of a divine designer (or planner) problematic, all the more so now that evolution paints a picture of millions of years of suffering. Haught encourages an insertion of reflection on the cross and the kenotic God of love directly into theological-scientific discussion, where the dialogue has often remained at the abstract level of the "divine." For Haught, the biblical view of God suggests that the future is the modality of being from which that which is most real arrives, namely, the promise of God. The Creation

of the self-emptying God of love is a "letting be" of an evolving world.

Chapter eight continues exploring the explanatory power of the metaphysics of the future. Rejecting the dualism of matter and spirit (wherein ethics requires escaping to the "spiritual") and the traditional formulation of "original" sin, Haught borrows from aspects of process thought in order to propose that God's vulnerable love is the ultimate theological grounding for an evolving cosmos in which free human creatures emerge and are called to orient themselves to the coming kingdom of God. In a similar way, chapters nine and ten apply this metaphysics to the issues of ecology and divine action respectively. Haught concludes by urging the reader to think of nature no longer as "design" but as "promise." As with all innovative and daring proposals, readers may well find aspects of Haught's book challenging and disconcerting, and it is precisely for this reason that I recommend it highly.

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Warren S. Brown, Nancy Murphy and H. Newton Malony, eds. *Whatever Happened to the Soul? Scientific and Theological Portraits of Human Nature*. Theology and the Sciences. Minneapolis: Fortress Press, 1998. Pp. xv + 252. ISBN: 0-8006-3141-2. \$19.00, paper.

This book was inspired by lectures on the topic of psychology and theology given by Malcolm Jeeves at Fuller Theological Seminary in 1995, which then led to a series of follow-up conferences funded by the John Templeton Foundation. A conviction emerged from those discussions that it is possible to present a view of human nature that is "reconcilable and congruent" with a range of scientific, theological and philosophical perspectives. This volume of essays attempts to develop further and defend that commitment (xiii). The contributors, four of whom are on faculty at Fuller, comprise an interdisciplinary panel made up of a theo-

logian (Ray Anderson), a philosopher (Nancey Murphy), an evolutionary biologist (Francisco J. Ayala), a geneticist (V. Elving Anderson), a New Testament scholar (Joel B. Green), three psychologists (Warren S. Brown, Malcolm Jeeves and H. Newton Maloney), and a medical ethicist (Stephen G. Post).

All nine authors share a commitment to a position that Murphy calls "non-reductive physicalism," a view that resonates with Polanyi's understandings of emergence. As Murphy defines the term, she notes that non-reductive physicalism agrees with the many scientists and philosophers who think that we do not need to appeal to nonmaterial entities such as soul or mind in order to explain distinctively human traits. At the same time, the term is intended to resist the tendency to say that a person is "nothing but a body" (2). Non-reductive physicalism thus contrasts with three other views (24-25): a radical dualism that identifies person with soul or mind, something separable from the body; a holistic dualism that argues that personhood refers to the gestalt while being constituted by many separable parts; and a reductive materialism that equates personhood with physiology and thus expects the physical sciences eventually to be able to explain emotions, morality and religious experience.

Murphy opens the book with an historical survey in which she offers synopses of how human nature has been viewed in western philosophy, early Christian sources, the early modern sciences, the philosophy of mind, recent science and recent biblical and theological scholarship. Located after this survey are two chapters each devoted to biological and psychological considerations. A key theme that unites these essays is that distinctive human capacities (as measured primarily against primates) emerge from biological underpinnings. For example, Ayala, while eschewing attempts to establish moral norms by reading them off of evolutionary developments, nevertheless argues that the possibilities of and need for ethics arises out of the larger brains and ensuing "enhanced intelligence" that are naturally selected in human beings. Thus, biology is necessary, but not sufficient for understanding the ethical dimension of human experience. In like manner, Anderson argues that our genetic code provides a necessary but not sufficient basis for many facets of human physiology and behavior. Analogously, Jeeves argues that mind emerges from brain physiology and Brown argues that what we call "soul" (defined as the capacity for personal relatedness) emerges from our biologically-rooted cognitive capacities.

In the following essay, Murphy reflects on some of the philosophical questions raised by these positions (e.g., the nature and type of reductionism and the epistemological status of non-reductive physicalism) and offers an understanding of religious experience based on non-reductive physicalism. The next two essays turn to explicitly religious accounts of human nature. Although this statement oversimplifies their analysis, both Green and Anderson show that the biblical writings tend toward a view of human nature as a psychosomatic unity rather than a dualism of body and soul. Prior to Brown's concluding recap of the book, Post offers an ethical assessment of both dualism and non-reductive physicalism, suggesting that the former is, at best, morally ambiguous and that the latter does not compromise anything essential to Christian ethics.

The book works effectively as a programmatic piece that makes a strong case for non-reductive physicalism and its compatibility with at least some of the sciences, philosophy and Christian faith. The authors write clearly and provide concise summaries of important historical and scientific developments. The book also contains an extensive bibliography to guide further study. Unlike some discussions of human nature, authors in this volume (Ayala and Post) address the often forgotten matter of the politics of anthropology, warning against the tendency to justify certain political and moral arrangements by rooting them in "human nature." Their discussion could profitably be extended to develop a more extended critique of the likely ideo-political consequences of nonreductive physicalism. One other way in which the positions taken in the book might profitably be extended is by using dolphins, rather than primates, as the touchstone for understanding human distinctiveness, since recent research suggests that dolphins have much greater capacities from communication than primates.

Nevertheless, the scope of interdisciplinary convergence is inspiring and the arguments convincing. Regardless of how widely accepted the arguments become, *Whatever Happened to the Soul?* deserves to set the terms for future discussion, at least for those who see the importance of placing the sciences and theology in dialog with one another on the topic of human nature.

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Alister E. McGrath, *T. F. Torrance: An Intellectual Biography*. Edinburgh: T&TClark, 1999. Pp. xiv+300. \$49.95 ISBN: 0-567-08683-6.

In a rather straightforward, no-nonsense volume, Alister McGrath has made a substantial contribution to the study of Thomas F. Torrance. McGrath's intellectual biography of Torrance does not rely upon winsome prose or provocative, personal exposés to accomplish its main objective: to set forth Torrance's understanding of the complementarity of the natural sciences and theology and of the major themes of Christian theology which contribute to that relation. The book is meticulously researched and well-argued, drawing upon unpublished writings and correspondence.

Initially, McGrath became interested in Torrance as McGrath sought a way to relate his early scientific work in molecular biology with his theological interests. He reports that he was generally disappointed in the facile and naïve manner in which theologians tended to deal with science. However, Torrance's mastery of dogmatics and the philosophy of science was especially impressive. Torrance was able to see both theology and science in light of the other, and so forge an integrated understanding of science and theology as having to do with the same reality in different ways. McGrath comments, "Torrance writings were, quite simply, of landmark significance....It seemed that Torrance was one of the few — indeed, perhaps even the

only — writer to appreciate the fundamental importance of *methodological* issues in relation to this dialogue [between science and religion]" (p. xii).

McGrath has put his finger on precisely the main reason why Torrance is at once so important and so confoundingly difficult to understand. It is also one of the primary reasons why Torrance's reception among theologians has been respectable but muted. Methodology is not sexy. It is rather abstract and technically complicated, and Torrance's dense style of writing does little to assuage the challenge or make methodology more appealing. Furthermore, Torrance does not approach methodological questions from the currently fashionable postmodern hermeneutic but rather from what may appear to be a rather stodgy appeal to orthodoxy. But the fact is that methodology is fundamental to disciplinary and intellectual coherence, and Torrance's contribution to our understanding of epistemology, both theological and scientific, has paved the way for a rich and mutually enhancing interaction between the two. Furthermore, Torrance's attempt to plumb the depths of orthodoxy reveals it to be inherently dynamic, polyphonic, and trenchant. Torrance's rediscovery and appropriation of orthodox realism wields a critical force upon all human assumptions and knowledge that outstrips even the most fervent of postmodern skeptics.

As I have noted, McGrath's intellectual biography of Torrance is all too straightforward. If one is hoping to find a thorough-going confrontation between Torrance and his critics, or if one is eager to see the practical consequences of the engagement of science and theology (e.g., the development of scientific or theological ethics), one should look elsewhere. The book is solely focused on demonstrating "the coherence and significance of Torrance's conception of 'scientific theology'" (p. xiv). This McGrath accomplishes competently with exacting precision.

McGrath's exposition is divided into two sections. The first third of the text is a biographical narrative that traces Torrance's life from childhood through twenty-nine years at New College, Edinburgh, as Pro-

fessor of Church History and Professor of Church Dogmatics. The story concentrates upon the external details of the significant relationships and faculty appointments and includes many photographs from Torrance's life. There are extended passages within this first section in which McGrath lays out the chronological markers of many of Torrance's most significant insights. These markers can become rather tedious reading, especially given the systematic development of the ideas in the second section. But they are important given one of McGrath's underlying purposes in the book. McGrath aims to acknowledge the close relationship of Torrance to Karl Barth, but also to show how Torrance was not only one of the most able and accurate interpreters of Barth, but one who diverged from and developed beyond Barth as well. Over and over, McGrath contends that Torrance was an appreciative but critical student of Barth who later became a master, if not Barth's equal, in his own right. The evidence he uncovers for his case is substantial. Not only is McGrath intimately familiar with Torrance's published and unpublished writing, he also draws upon his conversations with Torrance's friends and family as well as with Torrance himself. Additionally, McGrath provides an erudite commentary on the major British and German theologians and about some political intrigue within British theological schools.

In the latter two-thirds of the exposition, McGrath lays out the contours of Torrance's scientific theology. Although Barth figures prominently in Torrance's theological development, McGrath draws our attention to the vast range of the Christian tradition from which Torrance draws. Deftly, McGrath traces the intellectual moorings of Torrance's thought past Augustine to the very heart of orthodox Nicene theology as expressed in Athanasius and the Cappadocian Fathers. It is here in patristic theology that Torrance finds the unitive antidote to the dualism of Augustine, the all-important concept of the *homoousion*. As one would anticipate, the Reformation and especially John Calvin constitute a fundamental contribution to a critical realist theological hermeneutic.

In the last chapter of the book, McGrath traces Torrance's conception of natural theology. McGrath suggests that this is the most significant point of difference from Barth (197). Early on, Torrance was influenced by Scottish and British realism and by writers such as Daniel Lamont and Hugh Ross Mackintosh, both of whom were very appreciative of the natural sciences. After spending a year with Barth in Switzerland, Torrance was appointed to a faculty position at Auburn Theological Seminary in New York. There he engaged an ongoing "ferocious intellectual battle" over the relation between science and Christian theology. In his Auburn lectures, one will find ample evidence of Torrance's emerging conviction of the unitary nature of reality, and of the complementary relation between theology and science as ways of approaching the created order. According to McGrath, these were points over which Torrance repeatedly engaged Barth, encouraging him to attend to the convergences between science and theology.

Also in the last chapter, McGrath acknowledges the close affinity between Torrance and Michael Polanyi. McGrath explicitly takes to task Colin Weightman, who argued in Theology in a Polanyian Universe: The Theology of Thomas Torrance that Torrance grounded his theology in Polanyi's perspective. Dating Torrance's use of Polanyi's ideas to the early 1960's, long after Torrance developed his fundamental approach to theology, McGrath contends that Torrance did not wholly adopt Polanyi's philosophical perspective but rather found it to be illuminative of his ideas, especially with respect to Polanyi's commitment to realism and his appreciation of the fiduciary nature of faith. In my view, McGrath is closer to stating the truth of the matter than Weightman, but still I believe he understates Torrance's indebtedness to Polanyi's epistemology. It seems to me, Polanyi gave Torrance a language and conceptual framework with which Torrance could articulate the epistemological contours of a scientific theology. He was able to address more directly the methodological transformation that modern theology must undergo if it is to be scientifically viable. For example, on the matter of tacit knowledge and the hierarchical structuring of the universe, it is not enough to say that Polanyi merely "stimulated Torrance's theological reflections" (232). In many of his writings, Torrance acknowledges his indebtedness to Polanyi and adopts Polanyian language to explain the concepts and their implications for theology. "Personal knowledge" gave Torrance a means by which to affirm the unitary nature of reality and also account for the irreducible, bipolar interpenetration of material and spiritual dimensions. Torrance found in Polanyi a way to talk with scientists in their own language and to develop theology with greater scientific precision.

McGrath's intellectual biography of Torrance is an important and extremely useful introduction. Despite its scholarly depth and precision, and without detracting from its worth, I think it misses a vital ingredient. Undoubtedly, no book can fulfill every expectation, but nevertheless, I believe an important opportunity might have been missed. A biography should do more than trace the externals of a person's history and thought. It should delve into the personality, the personhood, of the person. Specifically, given the access to Torrance that McGrath enjoyed, one would want him to explore the early experiences and underlying, subterranean motivations that formed the tacit basis out of which beliefs emerge and commitments are forged. I wanted McGrath to serve as the voice through which we might hear Torrance reflect upon his formative experiences, answering the questions about why realism and scientific investigation became so all-important for him. Such a personal exploration would be invaluable to help us understand better the basic simplicity and profundity of Torrance's mind and approach. It would most certainly help a postmodern generation identify within their own experiences the tacit basis upon which they, too, might overcome dualistic thinking and affirm the ultimate unity of life before God.

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