

**Spirituality as Spirit and Spirituality toward Spirit:  
A Critique of Jacques Derrida's *De l'Esprit***

Boundaries draw us. Important things happen at the boundaries, and most of the significant questions are decided there. Already the Greeks saw this: *to apeiron*, the limitless or infinite, could not exist in time and space; everything that is some-thing is what it is because of its boundaries. The Greeks knew: categories make the thing; it needs its *ti tén énai*, as Aristotle put it, its “what it is to be [this thing].” And weren't the rationalists saying the same things about boundaries in different words when they asserted that a thing's reason is the cause of its being?<sup>1</sup> Even Quine recognized the crucial role of boundaries in his famous manifesto for mathematical logic, “to be is to be the value of a bound variable.”

Boundaries are constitutive of being. Perhaps that's why there is such interest today in the boundary lands on which spirit and science meet and overlap. We sense that we would really know what science is, what theology is, if we could only know how they are different, how the one limits the other. The history of their love-hate relationship underscores this lesson: throughout much of the modern period science derived its being, its very existence as a field, by negating talk of Spirit. Here truly *omnes determinatio negatio est*. Science was the teenager whose very identity had to emerge from negating, from overcoming the parent who had given rise to it. Think of Francis Bacon's manifesto of scientific method: each of his famous four “idols” — the idols of the tribe, cave, theater and marketplace — expressed a tenet he associated with the Church, the negation of which alone would allow science to emerge on its own.

The 21<sup>st</sup> century dawns with attention being showered upon the boundaries between science and theology. In the intervening centuries the former teenager, science, has grown into the full powers of adulthood: calm, sometimes cocky, in his powers; comfortable with the riches and the powers that he now commands; sometimes lean and fit, other times a little pudgy around the middle, as he moves forward confidently to face tomorrow's challenges. Theology, many would say by contrast, has grown old, somewhat lame and hard of hearing, now weakened by the

usurpation of his former powers, resting in his rocking chair at the edges of the action, no longer at the center of attention, sometimes a little melancholy, ready though to reminisce and to share his stories with anyone who will listen.

Or so it seemed a few years ago. But something happened in the last dozen or so years. Have you noticed this new blaze of attention to the frontiers between science and spirituality, the series of sorties back and forth from both camps, the new treaties and joint undertakings between these two great projects of the human spirit? “Frontiers” are again in the news, but now it’s the frontiers of trade between two kingdoms whose interdependency is growing. Our newspapers and academic journals (and now, with *Contact* and its imitators, even our movies) are filled with statements by scientists and religion scholars who now stand proudly on the wall that formerly divided the kingdoms of science and Spirit, not unlike those students who stood atop the Berlin Wall on that night in November 1989, champagne bottles raised above their heads, celebrating the inconceivable: that Berlin might again be united. Of course frontiers still confront us here, but now they are the frontiers of unexpected intercourse, cross-fertilization — the Uncrossable being crossed.

But warring nations do not become bosom buddies without transformation, even transgression. The science that consorts with theology is not the science of Bacon, Laplace, Bertrand Russell, A. J. Ayer, or even Karl Popper. And the theologian who takes the scientist in as bedfellow may find himself touched and probed in some unexpected ways.

The pointed metaphor is apt, for what this new intercourse raises is the question of sacrilege, of boundaries that one dare not cross, of liaisons that perhaps ought not to be. Indeed, does it not border on sacrilege for the theologian to enter into dangerous liaisons with scientists and deconstructionists in his or her continuing quest for Spirit? Nonetheless, I propose to turn to the French deconstructionist Jacques Derrida — and through him, to the German philosopher Martin Heidegger — during this brief exploration of the alleged demise of Spirit and the ascendance of spirituality to the throne. Like Virgil, Dante’s guide into the *Inferno*, Derrida will lead us down the steps — and perhaps up again: “And dark the path we climbed, and long enough / For mortal feet to weary. Fast he led: And I, made tireless by that hope ahead / Pursued him upward, till the rocks were rent / With first a sight of Heaven’s clear firmament, And then the earth’s clean airs with learnt delight I breathed, and round me was the beauteous night, / And overhead the stars.”

Our quest is clear: How is one to understand *Spirit* in these grey borderlands regions in which the old boundaries are obscured — partly by their inherent ambiguity, but partly by this new trampling of boots in both directions: platoons of popular writers, armies of media coverage, the *poparazzi* of on science and spirituality? A warning to the consumer: when the dust of public attention settles, the pristine purity of faith in Spirit may be harder to preserve in the regions where science and religion collide. As Heidegger once put it, “a faith that does not perpetually expose itself to the possibility of unfaith is no faith but merely a convenience.”<sup>2</sup> In commenting on Heidegger, Arnold Come writes,

this exposure of the Christian to the world of man-on-his-own is ... a condition for the continuance of faith itself. As Kierkegaard pointed out long ago, doubt is a permanent dimension of a life of faith. ... The Christian ... remains a pagan in a pagan world, a pagan in the original sense of an out-lander who has not yet moved in to the City of God, who therefore is still subject to the crushing hardships and threatening dangers of life in the “far country.”<sup>3</sup>

### **What then of the Future of Spirit in an Age of Science?**

It’s an interesting assignment. Futurists speculate on the world a few decades hence; computer science experts try to extrapolate technology trends out five or ten years; and stock market analysts can’t predict a stock market collapse one week in advance. Yet the theologian is asked to make one-hundred year pontifications — perhaps as punishment for our well-known concern with eschatology and questions of eternity!

The only way to look forward a century is to look back a century. From the standpoint of our topic, the *status questionis* of science and theology, it was a staggering century. I can put the point in a single sentence: precisely at the moment of its greatest victory, when the dominance of scientific knowledge should have been complete, the scientific endeavor slammed into insuperable limits. The irresistible force met the unmovable object. The pendulum of Empedocles reached its endpoint and switched direction; one epoch began to give way to the next; or, in Californian-speak, “The age of Aquarius dawned.” Of course, the conversion did not come easily: science smashed into its limits like an out-of-control car into a brick wall (and the

pieces are still flying from the impact as we speak). The collision of the individual sciences with their various concrete limits would be a talk of its own: relativity theory introduced the speed of light as the absolute limit for velocity, and thus as the temporal limit for communication and causation in the universe; Heisenberg's uncertainty principle placed mathematical limits on the knowability of both the location and momentum of a subatomic particle; the Copenhagen theorists came to the startling conclusion that quantum mechanical indeterminacy was not merely a temporary epistemic problem but reflected an *inherent* indeterminacy of the physical world itself; so-called chaos theory showed that future states of complex systems (like weather systems) quickly become uncomputable because of their sensitive dependence on initial conditions — a dependence so sensitive that a finite knower could *never* predict the evolution of the system, which is a staggering limitation when you realize what percentage of natural systems exhibit chaotic behaviors; Kurt Gödel showed in a well-known proof that mathematics cannot be complete ... and the list goes on and on and on.

It was truly a century of what I just called Empedocles' pendulum (or should it be Foucault's pendulum?): just as the logical positivists were declaring empirical verifiability as the only criterion of meaning, Toulmin, Hanson and Kuhn were already urging the incommensurability of competing paradigms; just as sociology and economics were setting undreamed of standards for quantitative precision in social science, anthropology and the interpretive sciences were already declaring "no exit" from the hermeneutical blocks to genuine knowledge of the Other; and, most recently, just as the human genome project was laying bare the very building blocks of the human machine, the 30,000 genes that alone must code for all inherited human structures and behaviors, top biologists such as Steven J. Gould were already describing the irreducible role of epigenetic factors and top-down causation in regulating genetic expression. To the innocent observer, it certainly appears that the project of omni-reduction to scientific explanation collapsed, perhaps permanently, at what should have been its moment of greatest victory. Could it be that we stand on the cusp of an era when science no longer represents dominance and control, sucking up and transforming everything in its path — a new era in which one speaks of science and religion using terms such as complementarity, cooperation, connection?

### **Derrida on Heidegger on Science and Spirituality**

In an era of unexpected limitations on the scope of scientific thinking, it might seem that Heidegger no longer has anything useful to say on the topic, “Spirit, spirituality, science, and deconstruction.” After all, as you may know, Heidegger’s writing grew out of the *battle* between two modes of thinking, calculative and meditative thinking. Recall his analyses of technology and science. Science is not a pure pursuit of theory prior to and separate from its manifestation in technology; rather, he held, early modern science was already an expression of technological thinking, even if it took a few centuries for the “fruits” of this mode of thinking to appear.<sup>4</sup> The marks of scientific technique, he thought, are calculative thinking and the will to produce. Harold Alderman puts it nicely: “The relation of science to the thought of Being is construed by Heidegger as the relation between a thought which is domineering and beings-oriented, and one which is acquiescent and Being-oriented.”<sup>5</sup> Recall Heidegger’s dichotomy: on the one side, the dominating, controlling, objectivizing actions of the Cartesian subject; on the other side, the need for passive waiting, emergence, and coming-to-be. “Beings do not become beings because they are represented to man,” Alderman summarizes Heidegger, “but because they are thrust into Being by Being itself. ... ‘Man stands before Being and lets beings Be’” (p. 37).

Derrida uses precisely this dichotomy to set up his dilemma for theology. Calculative thinking is domineering; meditative thinking is acquiescent. Calculative thinking comprehends only efficient causes that can be quantified and reduced to underlying physical laws. Calculative thinking objectifies the world; to it all of nature is “signified” by the limitless extension of the *ego cogito*.<sup>6</sup> Heidegger writes, “To set up an experiment means to represent or conceive the conditions under which a specific series of motions can be made susceptible of being followed in its necessary progression, i.e., by being controlled in advance by calculation” (*QCT*, p.121). But only a society that is blind to its own spiritual heritage, only a human who is blind to her own spiritual nature, could try to pretend that such calculation is ubiquitous. As Edith Wyschogrod notes, Heidegger’s analysis “locates the peril of the present age in its spiritual decline, as well as in our inability to perceive this degeneration in an essential way.”<sup>7</sup> (As the epigram for her book, Wyschogrod thus uses the beautiful quotation from Ludwig Wittgenstein, “I once said, perhaps rightly: the earlier culture will become a heap of rubble and finally a heap of ashes, but spirits will hover over the ashes.”)

Spirits may or may not hover over the ashes of classical theology. But without a doubt spirituality does. The lordship of science, about which Heidegger was so worried, found itself

under severe challenge by the end of the century, and spirituality seems to be gaining dominance instead. The widespread mutiny against science's dominion has, I suggest, three roots. First, *techné* encountered limits that appear to be inherent in nature, such as those expressed by quantum indeterminacy and in the physics of complex systems. Then many in both East and West turned aside in disgust and moral outrage in the face of Hiroshima, Chernobyl, Bhopal, the Exxon Valdisse. Most of all, perhaps, humanity has recoiled from the emptiness and *ennui* that we feel when faced by the prospect of an allegedly spiritless, valueless, meaningless universe.

But if we turn away from calculative thinking, what is it toward which we turn?

### **The “spirituality” fostered by Science and the Spirit science cannot give**

Heidegger's essay on Trakl, in the volume *Unterwegs zur Sprache*, advances the fundamental distinction between *geistig* and *geistlich*. (I admit that it may be discouraging for the English ear to find out that the future of the science-theology debate turns on the subtle difference between the two German suffixes *-ig* and *-lich*!) Yet Derrida's interpretation of these two terms, which I follow, underscores their centrality for theologians who struggle in this borderlands region of spirituality and Spirit— this realm of permeable boundaries, of grey upon grey, where there are few guides and even the most fundamental distinctions can become obscured. Can Derrida, our mentor *par excellence* when it comes to theology's woes, also help guide us out of this morass?

*Geistig* represents, as Derrida puts it, “the Platonic-Christian, metaphysical or onto-theological determination of the spiritual”; *geistlich*, on the other hand, is the speaking of Spirit “now withdrawn, as Heidegger would like, from its Christian or Ecclesiastical signification.”<sup>8</sup> We could paraphrase this latter term, *geistlich*, I suggest, as the “spirituality” that many of our popular religious leaders today fight for in the face of science, spirituality vis-à-vis science. For St. Paul the boundary was *pneuma* versus *sarx*, spirit opposed to flesh. For us it seems to be small-s spirit opposed to materialism, spirit opposed to “blind, meaningless physical law,” spirit as the creative, artistic impulse that rises on outstretched wings to soar above the objectifying forces of law-like explanation and prediction.<sup>9</sup>

Is this indeed the form of Spirit that will provide our liberation from the hegemon of science? I penned these words in a land called Northern California, where the term “spirituality”

enjoys a renaissance of massive proportions. In the strange land from which I come — but I dare say in many other places in the US and Europe — the answer is clear: the *geistig* is dead, long live the *geistlich*! *Geistig*, Platonic-Christian Spirit, now passes (ironically) as the realm of the dead letter, of organized religion, of “meaningless Scholastic distinctions,” whereas *geistlich* is the realm of freedom, humanness, authenticity. To paraphrase the Muslim call to faith, there is no God but spirituality, and Heidegger and Tillich are its prophets. In this movement — and again, I suggest, it extends across our entire culture — the question of spirit *just is* the question of human “spirituality” in an age of science.

Thus in popular culture, but no less in academics, we speak blithely of religion “versus” science, of science *or* spirit, of theology and science, and of the renewed interest in spirituality. Listening again to Derrida and Heidegger, I suggest to you that your ears may have grown deaf to the nuances of tone, and the nuances of position, with which they are wrestling. How can we possibly speak of “the quest for spirit” when we scarcely notice the fundamental distinction between *geistig* and *geistlich*? We are even more tone-deaf to (not to say ignorant of) the wealth of resources that the Western tradition has bequeathed us for speaking of Spirit in the metaphysical sense: the nuances of *ruach*, *pneuma*, *spiritus*, and *Geist*. Could the reason be that our age has embraced Feuerbach with a vengeance, Feuerbach without the sense that there even *is* an alternative? Is it “just obvious” that all talk of Spirit is merely a false projection of the human spirit — as if adding the word “human” to “spirit” is a pure tautology?

[Frustration:] How can I evoke within you the worry that you may have become blind to Heidegger’s distinction? (How can one again hear a melody when his ears have become deaf?) Sometimes I fear that the international project to which I devoted much of the last four years, “Science and the Spiritual Quest,” itself tended to obscure Heidegger’s distinction, despite our best intentions. For example, do you not hear the topic of “science and spirit” as in fact a question about science and the *human* spiritual quest? Note how easily the adjective “human” takes over. “Science does not exhaust the human spiritual quest,” my colleague tells me. But his assertion is not bold enough even to be interesting: *obviously* there is a human spiritual quest which includes yet exceeds the quest of science! To see this you don’t need the complexities of contemporary Continental philosophy: watch a flower grow, play a game with a child, read Mary Midgley’s book, *Poetry and Science* — can you doubt that *homo poeticus* is not captured by laws and equations? But these are not yet the hard questions!

I remember the response of a very famous ethologist whom we invited to Paris for a workshop in the “Science and Spiritual Quest” program last year. This agnostic was puzzled by the word “spirituality” during the entire three-day conference. At the end he noted astutely, “I am a humanist and not at all a religious person. But if you all use ‘spirituality’ to mean everything that humans do, then I suppose that I too must be spiritual!” That’s one way for theologians to win converts, of course: lower the bar so far that everyone is in by definition. Indeed, how many of us begin our “Introduction to Religion” courses by trying to convince our students that they too are spiritual people and therefore should show more interest in the class we’re about to teach! (“Don’t you, too, enjoy taking a walk in an old-growth redwood forest?” we intone profoundly.) Our strategy reminds me of that popular reading of Tillich’s theology several decades ago: “well, if religion means whatever is ‘of ultimate concern’ to each of you, and since each of you must by definition be ultimately concerned about *something*, then I guess all of you are deeply religious persons!”

Such is the profanization of Heidegger’s *geistlich* in contemporary culture. This is us: set free from the metaphysical or “vertical” dimensions of *geistig*, from all Platonic or metaphysical connotations, lacking even an ear for the overtones that might turn our attention in that direction, we now allow “spiritual” to filter down to the lowest common denominator. If driving my speed boat, or doing yoga, or being sexually active makes me feel fully human and fully alive, then engaging in these activities must *ipso facto* make me a spiritual being.

The theology of the future, the theology that dances with science — this new theology needs to be *geistig* as well as *geistlich*, metaphysical as well as anthropological. When it comes to metaphysics, I urge you to be minimalists,<sup>10</sup> to import only as much metaphysical superstructure as is necessary.

But how much metaphysical superstructure is enough? Should you be satisfied with the “religiously tinged naturalism” of the philosopher Willem Drees in Holland, the “ecstatic naturalism” of the comparative religionist Wesley Wildman at Boston University, or the “religious naturalism” of the biologist Ursula Goodenough? In *The Sacred Depths of Nature* Goodenough describes how studying the properties of the cell gives her the same sense of significance as exploring an ancient Aztec ruin; as she puts it tritely, “same rush, same rapture.” In a recent article in *Zygon*<sup>11</sup>, Goodenough draws heavily on the work of Michael Kalton. Kalton



has become a major spokesperson for a purely “horizontal” spirituality in articles such as “Green Spirituality: Horizontal Transcendence.”<sup>12</sup> This is truly the spirituality of Heidegger’s *geistlich*:

Horizontal transcendence finds its anchor in life rather than mind, thus displacing human consciousness from its privileged place. The movement from earth to cosmos, from biosystem to life, is a form of transcendence that is characteristic of degrees of abstraction rather than a movement towards some kind of Absolute metaphysical dimension. There is no cosmos posited apart from the historically ongoing one within which we find ourselves, nor is there life apart from ongoing living, at whatever level it is considered. Instead of the typical vertical transcendence of the Greek inspired tradition, the movement of this kind of spiritual cultivation is horizontal, perfecting our relationship with the world of life about us. ...

Horizontal transcendence to the vast scope of temporal process prior and consequent to human or even earth existence is a different challenge, for it does not relate to our goals and projects with either an ultimate affirmation or negation. Rather it connects with the effort itself, as our mode of manifesting and experiencing a dynamic that is coextensive with the process of life. ...

In this kind of horizontally framed spirituality the question of belonging acquires a new kind of centrality. Recovering a more sacral sense of the earth and universe starts us on the way. But coming from a background of traditions premised on a discontinuity between ourselves and the rest of the natural world, inevitably many of our ordinary ways of thinking and acting carry the imprint of that discontinuity. Belonging is an achievement as well as a statement of fact, and the path to such achievement leads through a reexamination of basic habits of mind.

### **Back to Metaphysics?**

This afternoon I would like to make the case that the horizontal is not enough, that *geistlich* is not enough; human spirituality begs to be understood in the light of a “something more.” Here, again, Derrida is my ally. But Derrida and I part ways — or so it will seem at first — with the very next sentence, viz.: It is time to move the metaphysical question back to the center of the

religion and science debate. For present purposes I must skip over the arguments for the possibility of metaphysics in a post-Kantian, post-Nietzschean, postmodern world.<sup>13</sup> For sometimes, in the attempt to dot the methodological i's, one fails to say anything about the question at hand.

My thesis, then: for a theologian who reads both science and Derrida, the central task becomes to think one's way from *geistlich* to *geistig*, from spirituality to Spirit. Virtually no one denies that there is a dimension of human existence in the world that is *geistlich*. Of course, one knows of the work of those who confidently assure us that it is all "in the genes," or (for that matter) in the quarks. But for most there is little controversy in acknowledging the dimension of human spirituality — after all, religious beliefs and rituals are a firmly embedded piece of the anthropological puzzle and the archeological records.

The question, then, is one of inference to the best explanation. Is *geistlich*, the human spiritual dimension, fully explained using the vocabulary of psychology, sociology, and anthropology? Or is such a spirit "human, all to human"? Is there, as Wordsworth suggests in "Tintern Abbey," a "sense sublime / Of something far more deeply interfused, / Whose dwelling is the light of setting suns, / And the round ocean and the living air, / And the blue sky, and in the mind of man"? It will be my thesis that a metaphysics of Spirit that is tied to science must be a metaphysics of process and emergence.

### **Spirit Emergent and Panentheism**

We've learned from the sciences of evolution, from the sciences of complexity, and from numerous individual results, that history, change and process are fundamental features of our universe. Nor does *process* merely mean a continual reshuffling of fundamental particles into new aggregates, as atomists both ancient and modern have thought. Instead, genuinely new entities and types of properties emerge over the course of natural history. Indeed, the concept of emergence seems ubiquitous in the literature today. Biologists speak of the emergence of higher-order structures out of the chemical building blocks of life; primatologists argue for emergent qualities in the higher primates; neuroscientists trace cognitive phenomena unique to the human person; and defenders of mind or spirit speculate about how these phenomena emerge out of the physical substratum. This last phenomenon is particularly important: mental

properties are emergent features of the most complex natural system known to humankind, the brain, with its roughly  $10^{11}$  neurons and  $10^{14}$  neural connections. One has to approach brain activity from its continuity with other biological structures, namely those that are like, though less complex than, the human brain (e.g., the brains of other higher primates, the less sophisticated nervous systems of other organisms). And yet, just like earlier emergent features of the biological realm, the human brain displays genuinely new emergent features, features which evidence parallels to other data in the biological world without being identical to them.

For simplicity's sake let's think just of the four major transitions in the natural world which evidence the phenomenon of emergence: the transition (1) from fundamental physics to physical systems and chemistry; (2) from biochemistry to complex biological organisms and ecosystems, including the evolution of life; (3) from the brain and central nervous system to the phenomena of consciousness or "mind"; and (4) from primitive awareness to the emergence of spirit within the natural order, including the question of its ultimate nature and origin.

Now the question: how should theologians understand this process of emergence? In *The Problem of God in Modern Thought* I explored the contribution of Friedrich Schelling, the so-called "philosopher of Romanticism." His 1809 "Essay on Freedom" is one of the earliest statements of the doctrine of *panentheism*. Panentheism, much discussed of late, is the doctrine that God includes the world, though the divine is also more than the world as a whole. Christian theology has long held that God on the cross identified deeply with the world and its suffering, as Jürgen Moltmann shows in his famous treatise on "the crucified God." But I would argue that we should also follow Moltmann in taking this identification of God and world even one step further: we should make it *ontological as well as soteriological*. A finite world cannot stand over against an infinite God. The world, not only at its inception, but also after its fall, was, is, and remains within the being of God.

If classical doctrines such as propitiation and the atonement for sin give rise to the picture of the "old man with the white beard," sitting outside the natural order, then let's now change the picture. In the panentheistic picture, the world — just as it is, as it surrounds us, without any attempt to touch up its flaws and wrinkles — is embraced by the divine and continues to express the divine nature. Yet panentheism maintains that God is also *more than* the world as a whole, which is why it remains a variant of theism. As long as one remains a theist, one is committed to

a moment of transcendence (“vertical” transcendence ) in attempting to think Spirit.

At the same time, Jewish, Muslim and Christian theists still have much to learn from their more *pantheistically*-inclined colleagues about what belief in the *immanence of God in the world* might mean and entail. Can it really mean a God who forays occasionally into a realm separate from Godself, acting salvifically like a lightning bolt and then stepping back calmly to view the results of “his” work? Or must we not think divine Spirit as remaining intrinsically and pervasively present within this world, so that it’s within the divine that “we live and move and have our being.”<sup>14</sup> *This*, I think, is the ultimate Christian affirmation; this is the humanism which is at the same time a transcending and overcoming of all humanism; this is what I have called the “Panentheistic Entailment” of the Christian affirmation of the world in *God and Contemporary Science*. In it I hear the words of T. S. Eliot:

The hint half guessed, the gift half understood, is Incarnation.  
Here the impossible union  
Of spheres of existence is actual,  
here the past and future  
Are conquered, and reconciled...

Panentheism and emergence — the key pieces of the puzzle are now in hand. But how are they to be fit together? I mentioned the *Essay on Freedom* by Friedrich Schelling. For Schelling the stages in the emerging complexity of the universe and of life are moments in the self-manifestation of God. Higher levels of complexity are not reducible to their physical basis — e.g. biology is not merely a special case of physics — because the *telos* of the entire process is the manifestation of a spiritual being. Our understanding of what life is, then, must flow from the *end* of the process, not from the beginning alone. This is the future-orientation that is basic to Christian theology, as Wolfhart Pannenberg argued throughout his career. What emerges in nature *is* genuinely new, a novel expression of divine (and human) creativity.

There is a remarkable similarity between Schelling’s view and the defense of emergent properties in recent philosophy of science.<sup>15</sup> According to emergentist biology, the emergence of the first self-replicating unit, the original cells or protozoa, meant the emergence of a genuinely new type of existence. Biological entities are not reducible. They can only be grasped by

biological laws, laws that are not merely shorthand for physical processes but express a mode of being, cell-based existence or *life*, that transcends its source in the physical world even while it continues to depend on definite physical conditions.

The Catholic philosopher Teilhard de Chardin followed the process of development through further stages.<sup>16</sup> Biological organisms that develop to a sufficient degree of complexity — for instance, through the emergence of a complex central nervous system and a brain — give rise to yet another level of analysis, that of the psyche or spirit. The theory of emergent properties thus represents an actual hypothesis concerning the nature of Mind. Against those who claim that someday human thoughts and feelings will be expressible in terms of neuro-physiological states, we argue that Mind is an inherently new thing, a reality that has arisen in the course of the progressive development of life. Finally, although it has not been my focus here, Chardin suggests that when psychological forms themselves develop to a sufficient degree of complexity they give rise to a level of spiritual reality, itself not reducible to the psychological, which becomes a necessary element in any final explanation of the universe. At the end of all evolution stands God.

What is it precisely that emerges in the emergence of Spirit? What emerges in the human case is a particular psycho-somatic unity, an organism that can do things both mentally and physically, in short: us. Although our mental functions supervene upon a physiological basis<sup>17</sup>, the two sets of attributes are interconnected and exhibit causal influences in both directions. To say that human persons are *psycho-somatic unities* is to say that we are complexly patterned entities within the world which evidence diverse sets of properties and causes operating at different levels of complexity. A living body and a functioning brain are *necessary* conditions for personhood, yet they are not *sufficient* conditions. Our personhood is not fully translatable into “lower-level” terms; persons evidence causal and phenomenological properties (*qualia*) that are uniquely personal. The causal story of, say, your listening to this paper cannot be told in physical terms, for the outcome of mental events is not determined by phenomena at the physical level alone. Talk about the subjective experience of falling in love or knowing yourself is irreducibly mental; such phenomena exercise a type of causal influence of their own.

[[Now the critic may object that talk of mental causes is like returning to occult causes in the physical world or “vitalist” causes in the biological world. But science only stopped appealing

to such causes because of the recognition that the realms of physics and biology operate in a fully law-like manner *based on explanatory successes in the relevant sciences*. It's just not true that human persons are analogous to cells and snow crystals, that their behaviors can be exhaustively predicted and explained in a "bottom-up" manner. Indeed, the hierarchy of the sciences itself offers evidence of patterns that are increasingly divergent from "bottom-up" physical causality.<sup>18</sup> Functionalist causal explanations play a role in the biological sciences (from cell structures through neural systems to ecosystem studies) that is different from causal explanations in fundamental physics, just as explanations appealing to intentions as causes play a role in explaining human behavior that is without analogy at lower levels. As one moves up the hierarchy of emergence, one finds an increasing role for top-down causal action. Thus, for example, DNA embodies in its very structure the top-down action of the environment on the molecular biology of the human body.]]

We do not now possess, and may never possess, laws of the mental life. This is why I am an emergentist. In contrast to natural scientists, social scientists can at most ascertain broad patterns of human response, and even these evidence a virtually unlimited number of personal and cultural exceptions. Within the human realm, it seems, uniqueness and idiosyncrasy are the norm (just look at the people sitting around you!). No laws are broken when I speak of your individual action in a non-standard way — indeed, this is what we *mean* by an individual action. Emergence thus points away from the law-centered context; it bespeaks a new ontological openness ... an openness to Spirit.

### **Toward a New Theology of Spirit**

The theology of spirit presupposed in this paper is a theology of emergence, which I have elsewhere called *emergentist monism*. Its roots lie in the one natural world that surrounds us and of which we are a part. As the "stuff" of this world becomes organized in more and more complicated ways, new properties emerge. Although their existence is dependent on the properties of the underlying particles, their behavior is irreducible to any of the underlying levels. Hence the natural world evidences the emergence of genuinely new properties. At each level of emergence, new structures obtain and new causal forces are at work. You can extend the structure of emergence downward to address questions of fundamental physical law, and you can

extend it upwards to come to a better understanding of consciousness, mind and spirit. The emergent causal levels that form the hierarchical structure of the natural world can thus help to elucidate the nature of spirit and its action.

You, though emergence lets us retain the language of spirit, it also constrains that language. Herein lies the humbling of theology in an age of science. No longer can theologians build castles in the air; henceforth we are bound to pay attention to the actual structures of the world and to its empirical patterns. The story of spirit is not fully separate from the story of natural history, and the one who would tell the one story must be prepared to tell the other one along with it. Spirit does not reduce to matter — this is the surprising lesson of recent science. But nor does it float happily on summer breezes, cut adrift from all empirical moorings. He who would know the one must look to the other as well.

This is truly theology in a new key. We may shy away from magical interventions into the physical world, yet we still find that world “re-enchanted” as the field of action of (and in) the divine. The beauties of our planet and the richness of its life forms are not distant expressions of a far and distant God; they continue to manifest the divine presence. We can again look to the structures (and contents!) of individual consciousness, and to the growth and development of culture, for signs of divine creativity. Think for example of the means by which individuals who are agents of creativity can influence other individuals. An idea of great genius (Einstein’s special relativity, Kant’s critical philosophy, Gandhi’s non-violent resistance) or an artistic genre (classical harmony, the sonata form in poetry) can spread like wildfire through a large number of minds or through human experience in general. Individual minds integrate into groups of minds; individual actions influence other actions.

Of course, one cannot *demonstrate* that a given idea is Spirit-breathed or that humanity is progressing toward greater harmony with the divine will; previous centuries offer too painful a picture of regress for such melioristic optimism to be convincing. Still, the “upwardly open” nature of human consciousness, infused as it is with intimations of immortality, offers a powerful model of the integration of mind and spirit. It allows us to speak of the mental or cultural world as upwardly open to the influence of creative Spirit.

At the end, then, we return to Derrida’s distinction between *geistlich* and *geistig*, now

however with a new understanding. I have shown that the contemporary focus on human spirituality hovers somewhere between the two terms, sometimes embracing and sometimes resisting the more metaphysical dimensions of Spirit. After all, isn't Derrida's primary fame as an anti-metaphysical thinker? And yet his essays are a profound grappling with metaphysical themes! Perhaps they are better interpreted not as opposed to metaphysics as such, but rather to the preliminary *closure* of metaphysics — what he calls its “foreclosure” in his book *On Spirit* (p. 100). For Derrida, the metaphysical question must remain radically open, since the semantic fields referred to by *ruach*, *pneuma*, *spiritus* and *Geist* remain constantly in motion. Any new meaning can be constructed by a new semantic field, and any claims to precise meaning can be deconstructed in the same manner.

The Western discussion of God did represent a sort of foreclosure — or rather the pursuit of one line of thought until it became untenable. Specifically, it was the Aristotelian *nous noetikos* path that became untenable: the conception of God as involving such perfection and purity that all real connection with the world is lost. Examples include St. Thomas' difficulties with a God who cannot know contingent changes in the world, Descartes' idea that God could establish even necessary truths by an act of will, and the contemporary difficulties in conceiving divine action. But Derrida, perhaps despite himself, has also signaled the direction in which to turn to address the problems. Derrida is most concerned about one particular “closure of speech” of which Heidegger is guilty: Heidegger's claim “to go beyond the European race from East to West” (p. 101). The philosophical theology that I sketched today under the twin rubrics of emergence and panentheism no longer rests content with an East-West dichotomy or an imperialism of the West. Panentheism represents a rethinking of the divine in the direction of the East.

If one adds the metaphysics of the emergence of Spirit to the doctrine of panentheism, one obtains a framework for theology that has both systematic coherence and a sufficient fit with science to avoid contradiction with its core results. Such ideas struggle to make the trembling transition from the *geistlich* — the human spiritual quest — toward the (always preliminary) language of *Geist* or Spirit, where that quest finds its proper home.

## **Conclusion**

It is time to conclude:



I have disappointed you. You wanted prophecy, of course: a new vision for theology, clear lines of development, predictions of doctrines and structures and outcomes. You wanted to know: What of the Trinity in the 21<sup>st</sup> century? Will liberals or evangelicals win the theological tug-of-war? What of the dialogue between Christians, Jews and Muslims? What do Christ and the Buddha share in common? Which Christian doctrines will science cause us to abandon? And where will the Church finally come down on the debate about ordaining homosexuals?

Church-political debates are important; one should by no means denigrate them. And the concrete, detailed disputes between science and theology, which have been my daily bread over the last several decades, must have a profound impact on what theologians assert in the coming decades. But these are perhaps not the most fundamental questions.

It is no coincidence that Derrida concludes his treatise *On Spirit* with an imagined debate between Heidegger and the theologians. And it is no less significant that Derrida makes himself the referee of this debate — no, much more than a referee: he *creates* both voices, contains both voices ... *is* both voices. In this book, which has served me as both foe and ally throughout this paper, Derrida is both the questioning of Western metaphysics and the theologian of the future, the one who is more concerned about the origin of God-language and its ultimate telos than he is about systematizing inherited doctrines. A mystical tone permeates Derrida's *On Spirit*; a mist obscures the Sun, diffusing its light across the horizon, until we are no longer able to tell where the Source lies and what merely reflects the Source.

So is it today in our quest for Spirit. The lines between Source and reflector, theology and spirituality, Holy Spirit and human spirit, *geistig* and *geistlich*, are no longer clear, though we continue to need both terms in each set. It is in this diffused glow of light through mist — and in the resulting confusion of up and down, of horizontal and vertical, which our critics are labeling the demise of theology, the *Untergang* of metaphysics — it is here that theology must find its way.

I am no prophet. You should have invited a prophet to speak of Spirit and God. But I do know that there is value in this wandering, this seeking for a way, which is theology today and which will continue to be its fate in the coming decades. Instead, perhaps such a theology-on-the-way is a fitting heritage of the wandering Jew from Aramea. Thank you.

## Notes

1. Isn't this why Hegel's dictum, "the real is the rational; the rational is the real" works as the *Grundmotiv* for so many of the moderns?
2. Martin Heidegger, *An Introduction to Metaphysics*, trans. Ralph Manheim (New Haven: Yale University Press, 1959), p. 7.
3. Arnold Come, "Advocatus Dei-Advocatus Hominis et Mundi," in James M. Robinson and John B. Cobb Jr., *The Later Heidegger and Theology*, (New York: Harper and Row, 1963), p. 119.
4. See Heidegger, *The Question Concerning Technology*, trans. William Lovitt (New York: Harper and Row, 1977).
5. Harold Alderman, "Heidegger's Critique of Science and Technology," in Michael Murray, ed., *Heidegger and Modern Philosophy: Critical Essays* (New Haven: Yale University Press, 1978), pp. 35-50, quote p. 35.
6. See the classic treatment by Joseph Kockelmans, *Heidegger and Science* (Washington, DC: University Press of America, 1985).
7. Edith Wyschogrod, *Spirit in Ashes: Hegel, Heidegger, and Man-Made Mass Death* (New Haven: Yale University Press, 1985), p.177. As the epigram for her book, Wyschogrod uses the quotation from Ludwig Wittgenstein, "I once said, perhaps rightly: the earlier culture will become a heap of rubble and finally a heap of ashes, but spirits will hover over the ashes."
8. Jacques Derrida, *Of Spirit: Heidegger and the Question* (Chicago: University of Chicago Press, 1987), p. 12.
9. This "spirit" is beautifully described by Mary Midgley in *Science and Poetry* (London: Routledge, 2001).
10. See "minimal personalist theism" in my *God and Contemporary Science* (Grand Rapids: Eerdmans, 1997), chapter 8.
11. Ursula Goodenough, "Vertical and Horizontal Transcendence," *Zygon* 36 (March 2001): 21-31.
12. See esp. Michael Kalton, "Green Spirituality: Horizontal Transcendence," in M. E. Miller and P. Young-Eisendrath, eds., *Paths of Integrity, Wisdom and Transcendence: Spiritual Development in the Mature Self* (New York: Routledge, 2000). The following quotations are taken from this piece.
- 13 For detailed argument to this effect, see my *The Problem of God in Modern Thought* (Grand Rapids: Eerdmans, 2000).

14 Acts 17:38. See Arthur Peacocke and Philip Clayton, eds., *In Whom We Live and Move and Have Our Being: Reflections on Panentheism for a Scientific Age* (forthcoming).

15 David H. Jones, "Emergent Properties, Persons, and the Mind-body Problem," *Southern Journal of Philosophy* 10 (1972): 423-433; Charles A. Krecz, "Reduction and the Part/Whole Relation," *Philosophy of Science* (1988): 71-87; Gerhard Roth, "Self-Organization, Emergent Properties and the Unity of the World," *Philosophica* (1990): 45-64; Eileen Barker, "Apes and Angels: Reductionism, Selection, and Emergence in the Study of Man (Some Recent Books)," *Inquiry* 19 (1976): 367-387; Roger Wolcott Sperry, *Science and Moral Priority: Merging Mind, Brain, and Human Values* (New York: Columbia University Press, 1983); Mario Augusto Bunge, *The Mind-body Problem: A Psychobiological Approach* (Oxford: Pergamon Press, 1980); Bunge, *Scientific Materialism* (Dordrecht: D. Reidel, 1981).

16 Pierre Teilhard de Chardin, *The appearance of Man*, trans. J. M. Cohen (New York: Harper & Row, 1965); *Building the Earth*, trans. Noel Lindsay (Wilkes-Barre, PA.: Dimension Books, 1965); *Christianity and Evolution*, trans. Rene Hague (New York: Harcourt Brace Jovanovich, 1971); *The Future of Man*, trans. Norman Denny (New York: Harper, 1964); *The Phenomenon of Man*, trans. Bernard Wall (New York: Harper, 1959); *Science and Christ*, trans. Rene Hague (New York: Harper, 1968).

17 For an emergentist theory of supervenience see Clayton, "Neuroscience, the Person and God: An Emergentist Account," *Zygon* 35 (Sept. 2000): 613-652.

18 I cannot review the entire argument here. It is powerfully laid out in Arthur Peacocke, *Theology for a Scientific Age: Being and Becoming — Natural, Divine and Human* (London: SCM Press, 1993).