Abstinence. Paul Tillich and Pierre Teilhard de Chardin both have made contributions to a theology of evolution. In a 2002 essay John Haught expresses doubt that Tillich's "purely clinical theology of "being" is radical enough to account for the "becoming" of evolution. Tillich's ontology of being includes the polarity of form and dynamism. Dynamics is the potentiality of being, that is, becoming. Tillich's dynamic dialectic of being and nonbeing is a more descriptive meta-

phil for the five mass extinctions of evolutionary history than Teilhard's progress. This dialectic is also a more realistic description of "ecomic evolution." Tillich's "Kingdom of God" within history, as well as "the End of History," in contrast to Teilhard's Omega Point, does not appear to contradict the Second Law of Thermodynamics, which predicts that the universe will ultimately disintegrate. Haught's concept of contract modes of relating science and religion would regard Teilhard's Omega Point as an expression of spiritual hope and purpose rather than a scientifically verifiable principle. The contract's contact portion is consonant with Tillich's description of religion as part of the vertical dimension of ultimate concern and science as part of the horizontal dimension of relationships between finite objects. Tillich did not share Teilhard's optimistic vision of the future.

Keywords: being and nonbeing; dynamic dialectic; End of History; horizontal dimension and vertical dimension; Kingdom of God; Omega Point; science and religion.

John Haught's essay "In Search of a God for Evolution: Paul Tillich and Pierre Teilhard de Chardin" (2002) expresses doubt that Tillich's theology of "being" is radical enough to account for the progressive "becoming" of evolution. In this article I show instances where Tillich's theology is...
more realistic than Teilhard's as well as not appearing to contradict the Second Law of Thermodynamics. Interestingly, Teilhard did not regard his major work, *The Phenomenon of Man* (1961) as theology. In the introduction he wrote, "If this book be properly understood, it must be read not as a work on metaphysics, still less as a sort of theological essay, but purely and simply as a scientific treatise." I regard it as being on the boundary between science and theology.

Teilhard and Tillich came from different professions and traditions. Teilhard was a geologist, paleontologist, and a Roman Catholic Jesuit who served as a French stretcher bearer in World War I. Tillich was a philosopher and theologian who served as a Lutheran chaplain in the German army during the same war. When Hitler came to power, Tillich had the "distinction" of being the first non-Jew to be dismissed. He had occupied an influential chair in philosophy at the University of Frankfurt, Germany. Reinhold Niebuhr then invited Tillich to teach at the Union School of Theology, Columbia University, New York. Teilhard also spent the last years of his life in New York.

**The Evolution of Life**

Haught writes, "Teilhard would still wonder whether the philosophical notion of being, even when qualified by the adjective >non<, is itself adequate to contextualize evolution theoretically." (2002, 539). Haught may have overlooked Tillich's dynamic dialectic between being and nonbeing used so effectively in his *The Courage to Be* (1951). Courage is the affirmation of one's own being in spite of the anxiety of nonbeing. The oscillation between being and nonbeing is a more realistic metaphor for the mass extinctions of complex life in the evolutionary history of Earth than Teilhard's progress toward an Omega Point. In the last 500 million years, life on Earth has undergone five cycles of extinction and rejuvenation, the most familiar being the extinction of the dinosaurs 65 million years ago. The "nonbeing" of dinosaurs must have been accompanied by massive, catastrophic suffering, but it made possible the "new being" or "becoming" of the mammals.

Tillich's dialectic of being and nonbeing is also consonant with the birth and explosive death, or nonbeing, of stars in supernovae. Gravitational attraction causes the dust from these to coalesce and become new stars with their planets. We are made of stardust. The term *human being* derives from the root word *homo*, the fertile soil, decayed organic matter that came from the nonbeing of plants. The dynamic dialectic of being and nonbeing leads to "new being" and "becoming." (This "new being" is not the same as Tillich's New Being, the healing power manifest in Jesus the Christ, who reunites our estranged existence with our essential being.) "Being includes and overcomes relative non-being." (Tillich 1963b, 25).
Tillich believed that scientists discover the nature of being. "The work of the scientists is the highest theological interest insofar as it reveals the logos of being, inner structure of reality. . . . In this sense the witness of science is the witness to God" (1967, 458).

Contrary to P. RogerGillette (2002, 641), who asserts that there (God) is more like an activation of doing than a ground of being, "Tillich's concept of being includes becoming. His structure of being includes the polyvalence of dynamics and form. There is no being without form. . . . We human beings identify each other by the form of our bodies. Dynamics is the potentiality of being, that is, becoming.

The dynamic character of being implies the tendency of everything to transcend itself and create new forms. At the same time everything tends to conserve its own form as the basis of its self-transcendence. . . . Therefore, it is impossible to speak of being without also speaking of becoming. Becoming is just as genuine in the structure of being as is that which remains unchanged in the process of becoming" (Tillich 1933b, 181; emphasis added).

Tillich stated in a dialogue with process theologian Charles Hartshorne, "I am not disinclined to accept the process-character of being itself" (Kegley 1961, 339).

Tillich saw the evolution of life as the actualization of potential being (Tillich 1963b, 15–20; James 1995). It took a billion years for the inorganic realm to evolve into the organic dimension characterized by self-preserving and self-increasing cells. "The dimension of the organic was potentially present in the inorganic, its actual appearance was dependent on the conditions described by biology and biochemistry" (Tillich 1963b, 20). The Cambrian explosion about 500 million years ago produced conditions that enabled organic cells to actualize their potential to evolve first into animals and then into a being with language. It took tens of thousands of years for the being with the power of language to become the historical humans we know as ourselves.

Tillich's idea of evolution as the actualization of potential being can be expressed by the saying "We can count the seeds in an apple. Only God can count the apples in a seed." The potential being of a seed is actualized in many apples. The primordial atom at the beginning of the Big Bang had the potential to become the present universe.

For Tielhard, life is the rise of consciousness. 'The cultural activity of human beings is creating a noosphere, which evolved from the biosphere, the atmosphere, the hydrosphere, and the geosphere. The Internet that encircles our globe is a good example of the noosphere. Tillich deals with the rhodycian problem of how a compassionate God could have allowed the suffering and loss of, for example, the dinosaurs. His theology is thoroughly developed in his Systematic Theology (1953b, 269–70; 1963b, 404). In summary, God, the ground of all being, which includes all forms of life, participates in the suffering through the symbol
of the cross. "God as creative life includes the finite and, with it, non-being, although nothing is eternally conquered, and the finite is eternally contained within the infinity of the divine life." Teilhard in a three-page Appendix to The Phenomenon of Man (1961, 311–13) discusses the problem of evil and concedes, "Even in the view of a mere biologist, the evolutionary epic resembles nothing to which the way of the Cross." 

TEILHARD'S "OMEGA POINT" VERSUS TILICH'S "END OF HISTORY"

Teilhard believed in spiritual evolution as well as material evolution: 

The end of the world the whole world is a transmutation of itself, through the universe, which has simultaneously reached the heterogeneous limits of its complexity and its centrality. The end of the world: the overgrowth of equilibrium (beat death), will detach the mind, fulfilled at last, from its material nurtures, to sustain itself for the rest of its weight on God Omega. (1961, 287)

Haught's contrast/contact mode, analogous to the Barbour's independence mode (1997, 87–87), is best for interpreting Teilhard when he asserts that a transcendental power drives evolution to higher levels of complexity converging at an Omega point. Teilhard's four ways of relating science and religion (1995) are conflict, contact, contrast, and confirmation. In conflict, science and religion are irreconcilable, as in creationism versus scientism. In contrast, there is a genuine conflict; the two are independent and deal with different questions. Contact is the way of dialogue, interaction, and possible coexistence. In confirmation, religion supports and nourishes the scientific enterprise.

In the contrast/contact mode, Teilhard's Omega Point is a religious expression of spiritual hope, which motivates and gives meaning to our living. If taken scientifically, a violates the Second Law of Thermodynamics for the increase of cosmic entropy (or disorder) as well as modern cosmology's prediction that the universe will freeze as it continues to expand. The metabolism that makes life possible increases the overall entropy of the cosmos. A metaphor for understanding the Second Law of Thermodynamics is the hapless Humpty Dumpty. W.B. Yeats put it this way: "Things fall apart; the center cannot hold." ([1921] 2003, 62).

In the contrast/contact view, the Omega Point transcends the space-time dimensions of the physical world and is therefore not subject to the Second Law. The conviction that the universe has direction is not capable of being demonstrated by science, according to Teilhard.

Tillich saw religion as part of the vertical dimension of depth, ultimate concern, meaning, and purpose. He regarded science as part of the horizontal dimension of relationships between finite objects ([1958] 1987; 1963a). *Science lives and works in another dimension and there-
fore cannot interfere with the religious symbols of creation, fulfillment, forgiveness, and incarnation, nor can religion interfere with scientific statements" (1967, 456). "Dimensions cross without disturbing each other; there is no conflict between dimensions" (1963b, 15).

Tillich’s "Kingdom of God" as both the End of History and within history is analogous to Teilhard’s Omega Point. Tillich’s metaphor does not appear to contradict the Second Law of Thermodynamics. The kingdom of God overcomes historical struggle between being and nonbeing, for power is the symbol for the eternal possibility of resisting nonbeing, and God exercises this power. Every victory of the Kingdom of God in history is a victory over the disintegrating consequences of the struggle between being and nonbeing. The final conquest, however, raises the eschatological question, and this is answered by the symbol of the End of History, in which the aim of history is achieved. The divine memory judges history by evaluating the negative as positive and the positive as positive. In an eschatological parenthesis, all returns to God, its source and ground.

The history of the universe will be remembered in the mind of the eternal. The eternal is not endless time but is part of the vertical dimension, which transcends space and time. Humanity’s eschatological fulfillment is its ongoing existential participation in the "eternal now." We can experience the eternal vertical dimension as a transcendent quality of the present. The fragility of the nature of these transcendent experiences is part of our finitude. This contrasts with Teilhard’s view that history is being drawn by the future Omega Point toward higher and higher levels of complexity and completeness.

Tillich, after reading Teilhard’s *The Phenomenon of Man*, wrote:

> It encouraged me greatly to know that an acknowledged scientist had developed ideas about the dimensions and processes of life so similar to my own. Although I cannot share his rather optimistic vision of the future, I am convinced by his description of the evolutionary process of nature. Of course, theology cannot rest on scientific theory. But it must relate its understanding of man to an understanding of universal nature, for man is a part of nature, and statements about nature underlie every statement about himself.

(1963b, 5)

Because Tillich was Prezentist and Teilhard Roman Catholic, it is good to recall Tillich’s *Protestant Principle* as being in dialogue with "Catholic Substance." Tillich’s Protestant Principle is critical of all forms of absolutism, and this essay is a critique of Haught’s doubt that Tillich’s theology of being is radical enough to account for evolution. Catholic Substance is the concrete embodiment of spiritual presence, which Teilhard exemplified in his practice of Ignatius’ spiritual tradition of seeing God in all things as well as his writings on evolution. These were so radical that his Jesuit superiors forbade their publication during his lifetime. Teilhard’s world-view was contrary to the absolutism of his superiors—and thereby an example of the Protestant Principle!
CONCLUSION

Both Tillich and Bultmann have made contributions to a theology of evolution. However, Tillich did not share Bultmann’s optimistic vision of the future. Tillich’s “Kingdom of God” within history as well as “the End of History,” in contrast to Tillich’s Omega Point, does not constitute the Second Law of Thermodynamics, which predicts that the universe will irreversibly disintegrate. Tillich’s dynamic diabolic of being and non-being is a more descriptive metaphor for the five mass extinctions of evolutionary history than Tillich’s progress toward an Omega Point. Haught’s contrast/contact mode of relating science and religion would regard Tillich’s Omega Point as an expression of spiritual hope and purpose in contrast to a scientifically verifiable principle. The contrast/contact position is also consonant with Tillich’s vertical dimension of religion and horizontal dimension of science.

NOTE

A version of this essay was presented at the Tillich and Tillichian Session of the North American Paul Tillich Society meeting held during the American Academy of Religion meeting, Atlanta, Georgia, 31 November 2005.

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