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A Jostling on the Shelves

Connie Barlow

Months ago, when I was planning my summer 1995 reading, I decided that two books would be marvelously suited for a coupled review in the *Teilhard Perspective*. Perhaps, I hoped, the 1995 books by Ken Wilber and Daniel Dennett would reveal the same majestic tension of evolutionary worldviews in collision as did the masterpieces by Teilhard and Jacques Monod.

Ken Wilber's 524-page opus (with half again that many pages in small-type, not-to-be-missed notes) kept me entranced for more than a week. *Sex, Ecology, Spirituality* is ill-served by its tabloid title; the subtitle *The Spirit of Evolution*—is far more on the mark. (The "sex" part of the title, in fact, does not even surface until page 472.) Shambala is the publisher, but the scholarship would have passed muster with any university press. The ideas come fast and furious. Fortunately, Wilber is an excellent writer, sometimes a beautiful writer. And his uncompromising way of taking a stand on so many issues of scientific, philosophical, and religious consequence kept my critical faculties on the alert. Despite perhaps initial resistance, I usually found I had to agree with him.

A student of consciousness and pioneer of transpersonal theory, Wilber has a genius for transcending conflicting ideas and worldviews. For example, he takes neither side in the "things v. processes"

debate; rather, in his view, reality is composed of "holons" (a term invented by Arthur Koestler). The most fundamental feature of the universe is nestedness. Every thing or process is both a whole in itself and a part of something else—hence, a holon. I was stunned to discover the logical sloppiness in traditional schemes (such as that of Karl Popper) for depicting the nestedness of the universe—atoms, molecules, cells, organisms, and so forth. Nested classifications that make no distinction between "populations" and "enduring compound individuals" violate an immensely useful logical rule: If an entire category is extinguished, then every level more fundamental than it goes on much as before, but every higher level vanishes. Consider: If one constructs a holarchy that contains the sequence "prokaryotic cells, eukaryotic cells, multicellular organisms, Gaia," then extinction of all multicellular organisms would mean the extinction of Gaia. (Unlikely.) But by viewing Gaia as a *population* of prokaryotes, the logic is preserved. Gaia falls outside the holarchy of enduring compound individuals. In my view, Wilber would have done well to introduce the concept of "swarm" from complexity theory, which considerably enhances the power and appeal of a simple population, but that is a quibble.

Wilber also does a fine job of pointing out the shallowness in so-called holistic or new paradigm ways of thinking. The holists (including systems thinkers), in Wilber's view, are just as bad as the reductionists and atomists they abhor in one crucial way: both groups are "flatland ontologists." That is, both groups focus on the exterior, functional, or relational aspects of something, ignoring its *interiority*. Here Wilber gives tribute to Teilhard's emphasis on "the within." Organisms are not just instrumental parts of the great whole of the biosphere; they have their own interiority. And, yes, humans are special for the level of consciousness within. "The Eco philosophies, with few exceptions, are the photographic negative of the Ego philosophies; the two of them are the flatland twins in the dance of Gaia's destruction...The one absolutizes the noosphere, the other absolutizes the biosphere, both contributing equally to the failure of integration...If the biosphere is Divine, then the noosphere must be the Crime." He cautions that, while transcendence to or emergence of new levels is the very essence of human spiritual as well as cosmic evolution, the new level can become pathological if the lower levels are thenceforth repressed or denied. A healthy noosphere utterly depends on a healthy biosphere; yet the cure for humanity's wrong relations with the biosphere must come through advances in human understanding and valuation in the noosphere—not regression to a more primitive level of noospheric development.

In his introduction Wilber cautions us to "read the book a sentence at a time." What audacity!, I said to myself. And so I was prepared to do just the opposite—out of spite. And yet I was never tempted by boredom, frustration, or over-familiarity to skip or skim even one page. So my recommendation to you: Mark it up and take notes. The book is too important to read without the opportunity for later reflection and recovery of ideas that resonated, and it is too dense and long to read more than once!

Ken Wilber thus fulfilled half of my summer reading wish. Yes, I had indeed found a masterpiece on a path parallel to that of Teilhard. What about the book I had hoped would measure up to *Chance and Necessity*, the 1970 anti-Teilhardian book by Jacques Monod?

Darwin's Dangerous Idea: Evolution and the Meanings of Life was a disappointment. Daniel Dennett, whose previous book was the controversial and acclaimed *Consciousness Explained*, begins well enough: "Almost no one is indifferent to Darwin, and no one should be. The Darwinian theory is a scientific theory, and a great one, but that is not all it is. The creationists who oppose it so bitterly are right

about one thing: Darwin's dangerous idea cuts much deeper into the fabric of our most fundamental beliefs than many of its sophisticated apologists have yet admitted, even to themselves." But then, in my mind, Dennett stumbles in several serious ways. "There is no future in a sacred myth. Why not? Because of our curiosity." Dennett makes the error of assuming that a myth, by definition, is necessarily based on superstition or outright falsehood; truth, in his view, cannot be mythologized. (Our own Thomas Berry and Brian Swimme have shown otherwise!) At the same time, anything that is "science" cannot be "sacred." And yet, as even a cursory reading will show, Daniel Dennett not only has religion, he is an ardent proselytizer. He goes so far as to conjecture a Darwinian answer to all the just-so, life-allowing curiosities of the universe that spawned Tipler's anthropic cosmological principle. The answer: an evolution of universes!

I had several serious problems with the stylistic choices Dennett made for this 521-page book. First, he attempts to do too much, spinning off into lengthy criticisms of the ideas of others. The story, his point, gets lost. Second, the level of each critique is so technical that few general readers will be able to follow the argument. I view myself as well-read in evolutionary theory, yet I could barely keep up with his reproof of Stephen Jay Gould. And what a reproof it was! Dennett does a hatchet job on the dean of contingency. I am no fan of Gould's viewpoint that evolution is just one crazy thing after another. And, like Dennett, I am angered that Gould's takes on evolution are received by nonspecialists as the scientific viewpoint (I wince to think of the damage Gould has done in two decades of monthly columns in *Natural History* magazine: evolution has little chance of finding a partnership with spirituality in the minds of those readers). Nevertheless, I was repulsed by the nastiness of Dennett's attack. That sort of harangue would not be tolerated in a peer-reviewed journal, and it would be most unlikely to survive the review and editing process at a university press (the book was published by Simon and Schuster). But then again, perhaps what goes 'round comes 'round: recall the nasty attack Gould made on the character of Teilhard from the platform of *Natural History* magazine.

Dennett does do a service, however, in inventing a lovely pair of metaphors to depict the fundamental contrasts in evolutionary views: "skyhooks" and "cranes." One species of a "skyhook" interpretation of evolution posits mind or spirit giving birth to the universe with a bang, which from then on may (or may not) evolve strictly by "cranes"—that is, accomplishments that spin off further accomplishments, what Jacob Bronowski called the "ratchet" of evolution. Another kind of skyhook, however, would be a telic draw, such as the Omega Point of Teilhard. Advance and novelty is not booted from behind but beckoned from ahead. Dennett, of course, sees only cranes—a view I share, to a large extent. One passage elegantly evokes this view: "If there are no skyhooks needed to make a skylark, there are also no skyhooks needed to make an ode to a nightingale." Dennett is an emergentist through and through. It is cranes all the way down, and there ain't no skyhook out yonder. But then he inexplicably backs away from the emergentist view in finding no "meaning" in the universe. He is surely entitled to his view that the universe has no inherent meaning that it carried from the start. But as a good emergentist he ought to acknowledge that just as life emerged, and flight emerged, and music emerged, meaning too emerges. Perhaps "meaning" has in fact emerged with us. It comes into being through our sense of awe and our groping interpretations of the cosmos. The particulars of its genesis make the phenomenon of meaning no less real, no less a manifestation of the universe, than is flight marred by its mundane invention a mere several hundred million years ago by a six-legged form of life on one among billions of

star systems. Flight is now undeniably a feature of the universe; today so also may be meaning.

Dennett doesn't see meaning in that way. Rather, he clings to the existentialist stance (so eloquently and frighteningly rendered by Jacques Monod a quarter century ago). The universe is meaningless, Dennett proclaims, and we humans—who apparently stand outside the cosmos as onlookers must invent meaning for our own humble uses. It is a human phenomenon, not a cosmic phenomenon.

Loyal Rue makes the same misstep, in my view, in his 1994 book, *By the Grace of Guile: The Role of Deception in Natural History and Human Affairs* (Oxford University Press). In calling for rebirth of a myth to "re-enchant the universe," he declares that "the ultimate purpose of this book is to oppose a monstrous truth with a noble lie." For him, nihilism is not a philosophical conjecture; it is truth—albeit monstrous truth. We need a "noble lie" to cloak the universe with meaning and thus restore "personal wholeness and social coherence." Otherwise, *By the Grace of Guile* is a brilliant and far-ranging book, but for me the chief merit was in getting me to finally pick up Rue's earlier book, *Amythia: Crisis in the Natural History of Western Culture* (University of Alabama Press, 1989). Here Rue says all the important things about the dire need to restore a sacred narrative—but he doesn't outright declare that the story and the meaning drawn from it are necessarily a ruse. Consider this sampling of some of his most delectable passages: "Only a rigorously contemporary myth can place our hopes where our energies can make a difference." "The task of averting amythia is to be accomplished not by leaving the church, but by changing it radically." "In myth we encounter the integration of cosmology and morality, in myth we are presented with a unity of the 'true' and the 'good'." "A shared myth is the source of both social coherence and personal integrity. Myth creates a synergy of individual rights and social responsibilities." Rue's suggestion, overall, is to replace the root metaphor of a personal God with the root metaphor of evolution—all the while maintaining the Covenant tradition of our Judaeo-Christian heritage. For me, it was an easy step to see how one could take Rue's lead and translate the *promise of survival* of the people who followed the sacred rules of Yahweh into the *opportunity for survival* of our species if we follow the sacred rules of membership in what Thomas Berry calls the earth community. As with all the best books, Rue's is a fine catapult for one's own most imaginative thoughts.

The four books now go back on the shelf, and I suspect I will off and on sense them jostling for my attention. Surely, Wilber's masterpiece and Rue's 1989 gem will not suffer neglect.

Work on Teilhard, 1980-1994: an Annotated Bibliography

Compiled by James F. Salmon and Thomas M. King

This annotated bibliography is a selected list of works published during the recent past by and about Teilhard. The selected listings are grouped under headings of works by Teilhard and works about Teilhard. The latter are categorized into religion, philosophy, science, and miscellany. Finally, the location is given of some principal libraries containing collections of writings by Teilhard. The emphasis is on literature written in English and French. There have been publications in other languages but English has been the most common medium used. Dissertations have not been included in the listing. The period 1980-94 showed a decline in the number of publications relative to 1966-80, but the listing below indicates there is still considerable interest and scholarship regarding Teilhard.

A Jostling on the Shelves

Connie Barlow

In my most recent anthology for MIT Press, *Evolution Extended: Biological Debates on the Meaning of Life*, I ended the "Further Readings" section with a quotation by Julian Huxley: "Goethe, Emerson, Wordsworth, Blake, Carlyle, Dante, Sir Thomas Brown, Shelley, and the rest of the assembly of immortal spirits—they jostle each other on your shelves, each waiting only to be picked up to introduce you to his own unique and intense experience of reality." Huxley, incidentally, is likely one of the immortal souls right now jostling on your own bookshelf; he wrote the introduction to the English translation of *The Phenomenon of Man*.

Yes, Julian, I hear them jostling—more and more each year. My own "To Read" list is hopelessly out of control. So many books, so little time....

In this composite review, I will focus on recently published books that moved me deeply. The ideas they impart now jostle in my mind.

- Fans of Edward O. Wilson will not be disappointed by his newest book, the autobiographical *Naturalist* (1994, Island). Had he not already captured more than a fair share of Pulitzer Prizes, I would predict another. "Wilson's got a bad case of biophilia," concluded my mate, a scientist, who confessed to coming nearly to tears by the end of the book. I loved it too, but wished that "the great E. O." (as his students call him) had also chosen to deal with the part of his psyche that put him on the board of *Zygon* (the journal of religion and science) and that called forth in him the declaration "the evolutionary epic is probably the best myth we will ever have."

- As a committed biology watcher and reader of science journals, I found Wilson's earlier book, *The Diversity of Life* (reviewed by Arthur Fabel in the December 1992 *Teilhard Perspective*), to be a splendid refresher. But one chapter, "Biodiversity Threatened," had a powerful and lasting effect on me: I came to realize that we humans have always been the scourge of the earth. Three-fourths of the large mammal genera that lived in the Western Hemisphere during the late Pleistocene vanished at the very time that humans were fanning out across this new-found landscape. Among the casualties was my own favorite extinct animal: the giant ground sloth. Every time I pass through vast stretches of nothing but creosote bush in New Mexico or Nevada, I search the horizon wistfully for the herbivore that used to keep this imperialistic plant in check.

"If this were a trial," claims Wilson, "the Paleo-Indians could be convicted on circumstantial evidence alone." But Wilson goes on to build a very compelling case for human overkill as the cause of the great Pleistocene mammal extinctions. By the time he turns his attention to the collapse of diversity of the large marsupial mammals in Australia 30,000 years ago, I am braced for his verdict.

- For those who may have read Wilson's book and acquired a similar Angst about humankind, I strongly recommend a dose of Jared Diamond—specifically, chapters 17 and 18 of his *The Third Chimpanzee: The Evolution and Future of the Human Animal* (1992, HarperCollins). Diamond, like Wilson, is a highly respected biologist and has also won literary awards for science writing. Diamond, perhaps even more than Wilson, narrates a disastrous legacy of the peopling of the planet. Island after island lost its flightless birds and giant reptiles whenever humans joined their communities. From these depressingly numerous case studies, Diamond goes on to build a general theory about the kinds of situations in which

human-induced extinctions can be expected. Irreversible human plundering of the living landscape occurs, he contends, whenever we (a) colonize an unfamiliar environment, (b) advance along a new frontier, (c) acquire a new technology, with insufficient time to appreciate its destructive power, (d) attempt to make a living in dry, fragile, or unforgiving environments, or (e) gather into centralized states in which rulers lose touch with the environment.

Diamond's message, that there never was a "golden age of environmentalism," may strike some as dour. But it fills me with hope. Instead of yearning merely to be as noble as our mythical ancestors, we can turn our sights to the future. We can try to put humanity in accord with nature—a wholly new turn in the "recent" evolution of our species. We can, for the first time, become the best of all possible humans. But the stakes are high; for the first time our very morality is on the line. "Tragic failures become moral sins," cautions Diamond, "only if one should have known better from the outset." Our ancestors did not know better; we inescapably do.

- Mihaly Csikszentmihalyi, author of *The Evolving Self: A Psychology for the Third Millennium* (1993, HarperCollins) fervently agrees. "The time of innocence is now past," he warns. "It is no longer possible for mankind to blunder about self-indulgently. Our species has become too powerful to be led by instincts alone." And so he urges us all to begin to think of ourselves as active, conscious parts of the evolutionary process. This revisualization is not only essential for the healing and future well-being of the planet; it is "the best way to give meaning to our lives at the present point in time, and to enjoy each moment along the way."

Csikszentmihalyi is a professor of psychology at the University of Chicago and author of *Flow: The Psychology of Optimal Experience*. That book sold very well in the self-help section of bookstores. (I never read it.) He was motivated to produce this sequel because "to transform the entirety of life into a unified flow experience, it helps to have faith in a system of meanings that gives purpose to one's being." And that faith, he contends, can best be vested in the past, present, and future unfolding of evolution.

The Evolving Self was given only a short and gruff review in *The New York Times Book Review*. I believe I know why. The book may only shine for readers who have already come to feel the warm embrace of cosmogenesis. One must first have been touched by Teilhard or Julian Huxley or Thomas Berry or Brian Swimme. For those readers, however, the book can be a godsend—because it is a useful and empowering guide for what to do with one's enthusiasm! At the end of each chapter, for example, he hurls a dozen or so exceedingly personal queries at the reader, designed to get us all to think, not just to read passively. Consider this one: "For most people, a central concern in life is the fear of oblivion after death. For that reason the ability to leave some legacy to the future is an important component of their peace of mind. Is it for you? And what do you consider more important to leave behind: a memory of yourself and your accomplishments, children who will carry on your biological blueprint, or values that might help influence how future generations act and think?" Here is another, "What is the most important bit of knowledge that you have learned in your life? Where did you learn it and in what way? Could it be taught to others?"

That last question is a tough one. The most important bit of knowledge... well, I'm not sure. But I can pass on a new insight I gained from reading another book, and I suspect that insight ranks, for me, in the top one hundred. The insight has to do with swarms.

• Kevin Kelly's new book, *Out of Control: The Rise of Neo-Biological Civilization* (1994, Addison-Wesley) is a superb and entertaining introduction to the science and power of swarms. Kelly is a long-time associate of *Whole Earth Review* (formerly, *Coevolution Quarterly*). He now is editor of the hot new journal *Wired*, which concerns itself with the cyberspace manifestation of the blossoming noosphere—that is, the rise of computer culture. The global computer linkage manifested in the Internet and the World-Wide Web are the newest manifestations of the swarm mods of being. But Kelly's book is equally about how this "out of control" style of relatedness has contributed to evolution.

A flock of birds, a school of fish, a hill of ants, a hive of bees: these are quintessential swarms. The emergent behavior of the swarm itself—the way that a flock of shorebirds rises and falls as a lovely, coherent form—has always attracted the admiration of nature enthusiasts. But biologists haven't really explored the science of swarming. The seeming purposefulness of a flock could, after all, easily be attributed to the brains of the birds that compose it. And until very recently, scientists believed that the hills and hives of social insects were largely controlled at the directive of the queen. We now know that assumption to be false. Sensing and choosing and responding are distributed; no one is in charge. The order and creativity evident in hives and hills, in fact, owes to their being wildly "out of control."

Moreover, we have only recently discovered that the parts of a swarm can be essentially brainless, and still the swarm emerges as a seemingly purposeful thing (not an entity, not an aggregate, but a swarm). Pixel-sized "boids" can be programmed to follow three simple rote rules, while paying attention to the actions of only their nearest neighbors, yet the group as a whole will sweep across a computer screen and avoid obstacles in a pattern eerily like that of a flock of sandpipers or starlings.

Teilhard envisioned a higher-level something emerging at a time he called the Omega Point. But he was firm in his belief that the higher-level something would come into being without jeopardizing the individuality and self-directedness of its constituents (notably, humans). That rosy view of Omega has always been a brain teaser for me. But by allowing swarms to enter my personal metaphysic as a legitimate and powerful mode of being, I find Teilhard's vision less paradoxical. And I am hopeful that swarms may yet provide a solution to the scientific obstacles facing Gaia theory—liberating her proponents to happily call her a *swarm*, instead of searching for her in the far more questionable category of *individual* or *entity*. "It is the

great irony of life," writes Kelly, "that a mindless act repeated in sequence can only lead to greater depths of absurdity, while a mindless act performed in parallel by a swarm of individuals can, under the proper conditions, lead to all that we find interesting."

Kevin Kelly is not at all timid about the questions he addresses in this book, nor in the answers he proposes. What does evolution itself want? he poses again and again. "Organisms, memes, biomes—the whole ball of wax—are only evolution's way to keep evolving. What evolution really wants—that is, where it is headed—is to uncover (or create) a mechanism that will most quickly uncover (or create) possible forms, things, ideas, processes in the universe. Its ultimate goal is not only to create forms, things, and ideas, but to create new ways in which new things are found or created." Here is how he depicts the "evolution of evolution" thus far on earth: first came *autogenesis* of chemical systems and cycles; then replication was invented; replication was eventually put under *genetic control* in the first living cells; but *somatic plasticity* gave each developing organism the chance to creatively respond to particular environments; the invention of *memetic culture*, the propagation and handing down of ideas, sped up evolutionary processes by orders of magnitude; and humans are now edging toward helping evolution become *self-directed* and intentional, rather than merely (and often cruelly) mindless and experimental.

Teilhard, the Omega point, a global mind—these things Kevin Kelly mentions only in passing. He assiduously shies away from the spiritual implications of emergent swarm modes of being and of his own cosmic view of evolution. But he ends one chapter this way: "I don't doubt that our discoveries about the hidden nature of deep evolution will also touch our souls."

The 40th anniversary of Teilhard's death will be memorialized by a MASS ON THE WORLD, celebrated by Fr. Thomas M. King, S.J., at the close of our Annual Meeting, April 22, 1995. All are invited to attend.

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