Evolution and Enlightenment: The Conceivable Convergence

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Abstract

Evolution and enlightenment are two of the most powerful concepts that have ever entered human consciousness. But they entered it through different doorways, so to speak: They arose in different cultures, at different stages of human history, and still occupy separate compartments in most minds. We don't yet have a body of inquiry that convincingly integrates the two. What we do have, in its absence, is an empty gulf between the true believers who proclaim that the dawning of a transcendent New Age is just around the corner, and the skeptics for whom enlightenment is scarcely acceptable even as a description of an occurrence in some people's lives and certainly not as a plausible scenario of future human evolution.

Yet although evolution and enlightenment are set apart in many ways, they do share a certain foundation, which is that they are both developmental concepts: they are about ongoing processes of growth and change - in the case of evolution, the growth and development of organic life, human culture, and the cosmos; in the case of enlightenment, the growth and development of individual consciousness.

What I propose to do here is briefly review a few salient points about each concept separately, and then consider how they might come together as a significant force in 21st century thought. I am not prophesying an imminent transformation of the species, but rather seeking to help create a framework within which we can seriously consider the experiences and understandings now described as enlightenment as natural developments in the growth of individuals and thinkable developments in the future evolution of the species.

The Evolution of Evolution

The idea of evolution has a long history in Western thought - often in close connection with the idea of continual onward-and-upward human betterment (Nisbet 1980), but now tending to be defined in more cautious terms such as the emergence of increasingly complex systems. (Chaisson 1987)

Rudimentary speculations about *biological* evolution appeared in the thinking of some of the ancient Greeks, were relegated to a minor role by Christianity, and then surfaced again in the work of Enlightenment philosophers such as Diderot and Leibnitz. Certainly the idea of the evolution of species was not created *ex*

nihilo in the mind of Charles Darwin; his accomplishment in providing a plausible explanation of how it took place was monumental, but he did his work in a time when the idea of evolution was already a familiar piece of the intellectual landscape. For a good thirty years before *Origin of Species* appeared there had been an ongoing debate in European scientific circles between "evolutionists" and "immutabilists," and Charles Darwin's grandfather, Erasmus Darwin, was one of the most energetic proponents of evolutionary views. Despite its being violently opposed by many people and groups, the evolution of organic life is now a central element in the modern scientific worldview, disputed in details but solidly in place as the reigning paradigm.

The concept of *cultural* evolution, always linked to biological evolution, has been developed in the work of early theorists such as Herbert Spencer, in the various schools of evolutionary epistemology, and in the work of philosophers of science such as Thomas Kuhn (1970). Currently the idea of "memes" - which originated with Richard Dawkins (1976) but is actually not much different from the concept of "cultural DNA" used by evolutionary biologists such as George Gaylord Simpson (1953) – has captured the popular imagination as a way of comparing ideas to genes. The idea of the organic and ongoing growth of human thought is such a powerful one that it has been appropriated and oversimplified in many ways: in the simple "religion of progress" that captured the minds of 18th century philosophers such as Turgot and Condorcet, for example, and in the Marxist dialectic that claimed to predict the inevitable course of political change.

With considerable less fanfare than that which accompanied its triumph in biology, evolution has also become the dominant paradigm in cosmology. Arguments about various theories such as the big bang all rest on the view that the entire universe is engaged in a process of development. Eric Chaisson (Pp. 3-4) equates evolution with developmental change, and goes on:

> *It seems that change is the hallmark for the origin, development and maintenance of all things in the Universe, animate or inanimate. Change has, over the course of all time and throughout all space, brought forth, successfully and successively, galaxies, stars, planets, and life. Thus, we give this process of universal change a more elegant name - cosmic evolution, which for me includes all aspects of evolution: particulate, galactic, stellar, elemental, planetary, chemical, biological, and cultural.*

Evolution in this view is indeed, as Teilhard de Chardin (1959: 219) wrote, "a light illuminating all facts, a curve that all lines must follow." It is the macrohistory of all macrohistories.

The Faces of Enlightenment

Experiences of enlightenment come in many shapes and sizes, but the common features are a sense of unity with something beyond the self (variously described as God, Being, Nature, the All, or the immediate environment) and a corresponding detachment from the sense of the self as a separate and ongoing entity (the I-narrative or ego).

Accounts of enlightenment experiences can be found in the folklore and religious scriptures of virtually all civilizations - ancient and modern, East and West. More often than not, these are presented as transformative rather than developmental: the individual goes in a dramatic instant from one state to another, becomes a profoundly different person. In Christian lore, it is the story of Saul of Tarsus, suddenly struck by a blinding light on the road to Damascus and converted to Paul the Apostle; in the most famous enlightenment story of all, the Buddha achieves perfect wisdom while meditating under the bodhi tree.

And of course the world or universe within which such experiences occur is not ordinarily described in developmental terms; the metanarratives tend to be either circular, as in East Asia, or eschatological, as in Christianity. In classical Buddhism we have the great circle of samsara, the endless wheel of birth and death and reincarnation, on which all beings are fated to turn through life after life until they find the release of nirvana; to attain enlightenment is to jump off the merry-go-round, while it rolls on. Christianity has its prophecies of Armageddon

and Judgment Day, and until Charles Darwin came along the Christian world's official biology was the concept of the Great Chain of Being, with its immutibalist view that all living things occupied the places assigned to them by God at the time of the Creation, and that neither the appearance of new species nor the extinction of old ones was thinkable. (Lovejoy 1936)

Only rarely in premodern texts are mystical visions presented in a framework that suggests cosmic evolution; the most eloquent example that I know of is in the poetry of Jalaluddin Rumi (Shah 1970: 107):

I have again and again grown like grass;
I have experienced seven hundred and seventy moulds.
I died from minerality and became vegetable;
And from vegetativeness I died and became animal.
I died from animality and became man.
Then why fear disappearance through death?
Next time I shall die
Bringing forth wings and feathers like angels:
After that soaring higher than angels-
What you cannot imagine. I shall be that.

Although the transformative, one-stop image of enlightenment experience tends to dominate in the popular culture, the literature and practice of major schools of Eastern mysticism are often based on a theory of spiritual developmental in which the student passes through ascending stages of consciousness. Even in Zen Buddhism, known to Westerners for its concept of complete and instantaneous satori, levels of enlightenment are commonly identified, and believed to be capable of being tested and verified (or not verified) by the master. It is not surprising, in view of this, that Zen has featured so prominently in East-West syntheses such as Erich Fromm's *Zen Buddhism and Psychoanalysis* (1970, first published 1959) and Alan Watts' *Psychotherapy East and West* (1961).

Psychological Studies of Enlightenment

Western scholars have been exploring enlightenment as a psychological phenomenon for over a century. Two classics of this genre were *Cosmic Consciousness*, by the Canadian Psychiatrist Richard Bucke (1961, first published 1901); and William James' *Varieties of Religious Experience*. (1958, first published 1902)

Both of these made their appearance in a time when people everywhere were still assimilating the world-shaking impact of Darwin's *Origin of Species* and its powerful subliminal message that change and development were inherent to all life. James believed that in the theory of evolution "which, gathering momentum for a century, has within the past twenty-five years swept so rapidly over Europe and America, we see the ground laid for a new sort of religion of Nature. . . ." (P.88). He did not, however, attempt to put the various religious experiences he described into an evolutionary context.

Bucke did. He proposed that evolution on Earth could be understood in three stages – the evolution of consciousness (in animals), the evolution of self-consciousness (in humanity), and the evolution of cosmic consciousness - and predicted that cosmic consciousness would appear more and more frequently, until the whole human race had reached that stage. He also expected it to happen soon: "This new race," he declared, "is in the act of being born from us, and in the near future it will occupy and posses the earth" (P.318). Bucke had undertaken an extensive research program (inspired by a powerful personal enlightenment experience of his own) on which he based his prediction. Unfortunately, the research findings, especially his claim to have proved that more and more people were having such experiences, are far less convincing than his description of his own experience. His book is valuable as a kind of historical signpost - the first explicit hypothesis of enlightenment as an evolutionary phenomenon - and also as a reminder of something we would do well to remember as we proceed into further explorations of this subject: enlightenment does not confer infallibility.

Abraham Maslow's work on self-actualization and peak experience came a half-century after James' studies, and came a long way toward bringing such experiences into general acceptance as more or less "normal" psychological phenomena that might occur in different kinds and degrees:

> *We may also learn from our subjects that such experiences can occur in a lesser degree of intensity. The theological literature has generally assumed an absolute, qualitative difference between the mystic experience and all others. As soon as it is divorced from supernatural reference and studied as a natural phenomenon, it becomes possible to place the mystic experience on a quantitative continuum from intense to mild. We discover that the mild mystic experience occurs in many, perhaps even most individuals, and that in the favored individual it occurs often, perhaps even daily. (1954: 164-165)*

More recently, University of Chicago psychologist Mihaly Csikszentmihalyi (1980) undertook a systematic study of a different – but still closely related – subject area he calls "optimal experience" or "flow." Those are the moments when, without sacrificing our individuality, we nevertheless lose ourselves completely in an activity – in the *doing* of it rather than in the *purpose* of doing it. Flow, he writes, "is the way people describe their state of mind when consciousness is harmoniously ordered, and they want to pursue whatever they are doing for their own sake."

Csikszentmihalyi's concept of flow experiences is even more inclusive and less explicitly religious or mystical than Maslow's peak experiences. Flow happens at any moment when attention is concentrated, when inner conflict and self-consciousness are swept away by immersion in an activity – work, dancing, climbing a mountain, playing a game, tending a garden. In such experiences, he believes, many people bring about a temporary restructuring of their cognitive process – not a loss of self, not a loss of consciousness, only a loss of consciousness of the self: "What slips below the threshold of awareness is the *concept* of self, the information we use to represent to ourselves who we are." (P.6) Like James' accounts of religious experiences, these moments of flow involve a sense of merging with some larger entity.

These various explorations have opened up new perspectives on vast areas of human life, suggesting that many more people than we suspect (or than *they* suspect) may know something about enlightenment.

Another approach to the study of enlightenment experience has emerged out of brain research - particularly the study of brain changes during meditation. In one case, Andrew Newberg and Eugene d'Aquili of the University of Pennsylvania worked with an accomplished meditator who described a certain state of mind that arose after about an hour, when he reached into what he believed to be "the truest part of who he is":

> *Whatever Robert calls this deeper consciousness, he claims that when it emerges during those moments of meditation when he is most completely looking inward, he suddenly understands that his inner self is not an isolated entity, but that he is inextricably connected to all of creation. Yet when he tries to put this intensely personal insight into words, he finds himself falling back on familiar cliches that have been employed for centuries to express the elusive nature of spiritual experience. "There's a sense of timelessness and infinity," he might say. "It feels like I am part of everyone and everything in existence." (Newberg and d'Aquili 2001: 2).*

Using a SPECT (single photon emission computed topography) camera, the researchers were able to observe a striking pattern of increased activity in a specific bundle of neurons in the top rear section of the subject's brain.

Toward a Systemic View of Human Development

If enlightenment is to be understood in an evolutionary context, we need more than studies of isolated experiences, however useful those may be; we need a larger framework that integrates those experiences in the life story of the individual - how they relate to what has come before, and what comes after; what kinds of psychological changes accompany or are produced by them. Such a framework should also place the life story of the individual within such larger contexts as the social, cultural and political environment, the biological evolution of life, and the evolution of the cosmos.

We have parts of that framework: Research on the cognitive development of individuals – on how we form new structures of understanding about ourselves and the nature

of reality as we grow – has been going on since the early part of the 20th century; the Swiss psychologist Jean Piaget (1896-1998) was the pioneer in the field.

Piaget's main interest throughout his long career was epistemology, which he believed should be a science, not a branch of philosophy; it should be a science investigating how organisms develop new ways of knowing as they mature. He founded an "International Center of Genetic Epistemology" at Geneva, and in one of his most influential works (1932), he asserted that the child's progress in forming concepts about the world is also progress in forming moral principles.

Subsequent moral development theorists have in various ways elaborated on the basic Piagetian model. They all look at human beings growing and changing through a process of reconstructing their epistemologies - and in the process reconstructing their worlds – and they all identify certain developmental stages, each one marked by the appearance of new central organizing concepts that hadn't formerly been part of the person's worldview.

Lawrence Kohlberg (1969) developed a system that showed the person growing as a moral actor by constructing and reconstructing principles of "reciprocity" between the self's actions toward others and those of others toward the self. Kohlberg's work was enormously influential, and also widely criticized – particularly by some feminist psychologists who thought he had really only theorized about how *men* develop morally and had not considered the possibility that women might grow and shape their moral universes in quite different ways. Carol Gilligan opened a new line of moral-development theory with her book *In a Different Voice* (1982), which argued that women understand moral obligations in terms of relatedness to others.

Some of the best work on moral development in women has been done by the team of researchers led by Mary Belenky at the Stone Center at Wellesley College in Massachusetts. (Belenky et al. 1986) Going back to Piaget, they base their description of moral development on what they call "epistemological categories" – at each stage, the woman develops a new understanding of how reality is constructed, and also learns how to play a more active role in the process.

Yet another major work of developmental theory, Robert Kegan's *In Over Our Heads* (1994), places the cognitive growth of individuals in a context of social evolution. His thesis is that each new stage in the development of society calls for new cognitive skills on the part of its members. The most important of the skills required by the present era, he believes, is the ability to "objectify" - to recognize that fundamental concepts such as selfhood, nationality and religion are socially constructed and contingent rather than God-ordained and eternal. The title of his book reflects his concern that most people in the contemporary postmodern world may not be up to the cognitive challenges of living in it. In the closing pages (Pp. 236-37) he raises - but does not begin to answer - the question of what a "qualitatively new order of consciousness" might be, and how it might come about.

What is to Be Done (that *Can* be Done)?

In my most recent book, *The Next Enlightenment* (Anderson 2003), I explored the outlines of a new "enlightenment project," an East-West synthesis that combines some of the features of the European Enlightenment - a multicentric network of explorers, a spirit of open inquiry, a dedication to human progress - with an understanding of the possibilities of human consciousness that are contained in the Eastern enlightenment traditions such as Buddhism, Sufism, and Vedanta. Its aim is to engage seriously the question raised by Kegan.

My intention was not so much to *propose* such a project as to *describe* something that is already underway, and of which the various lines of inquiry I have touched on above are important parts. My aim here and in other work relevant to the project is to give it further coherence, momentum, and visibility.

It would be nice to propose (or describe) a

project of moving directly toward universal enlightenment, but we don't know how to do that, and a lot of people undoubtedly would not welcome it even if we did. However, I don't mean to suggest a simple first-this-and-then-that sequence of events either - evolution is never so orderly. I expect that any number of events will unfold that will push the dialogue along in various ways, for better or for worse. It seems entirely likely, for example, that since brain research and the development of new psychoactive chemicals are racing along hand in hand, there are going to be successful attempts to produce chemically the state that Newberg and d'Aquili's research subject achieved through meditation.

Everything in this project relates to what I call the Big Three: cosmology, identity, and epistemology. By cosmology I mean our understanding of the universe; by identity, who and what we think we are; by epistemology, what we believe about belief and about the nature of truth (and, today, what we understand about how our brains work). All of these have been changing strikingly in recent decades.

Some of the most dramatic changes are taking place in cosmology. Only a century ago – an instant in the timescale of evolution – leading scientists still believed that the universe consisted of our galaxy with perhaps a few nebulae or minor galaxies floating around in the suburbs. Then, with the help of new instruments and new theories, they revised their views and gave us not one galaxy but a hundred billion of them, each with billions of stars. Now the cosmologists are pushing their envelope again to consider the possibility of multiple universes – some saying the concept of a multitude of them may be the only way to make sense of this one. (Wolf 1988)

And – still in regard to cosmology – we have another difficult piece of work to complete, having to do with what Stephen Toulmin (1985) has aptly described as "the death of the spectator" – the shift in perspective from looking at a universe "out there" to being a part of the universe looking at another part of itself. This shift is commonly associated with quantum physics, but it relates to all science. It is less remote from everyday life than the multiple-universe question since it has to do with what is right in your own field of vision; it is often spontaneously discovered in peak or flow experiences. And it is closely linked to the second item in my big three list: identity.

In the classic Western view, the self is an individual consciousness with clear boundaries that separate it from its environment. But the boundaries fade with the demise of the spectator stance toward the universe, they fade in another way as we come to understand more about the complex and numerous ways that self and environment interpenetrate. Something else changes as brain research moves us away from the Cartesian notion of a single central observer, toward the view of the brain as a committee of organs that process and reprocess myriad versions of reality. (Dennett 1991; Gazzaniga 1985; Minsky 1985) And meanwhile the constructive psychologists show how, in a multicultural world, people create multiple selves, with different faces to present to the world on different occasions. (Gergen 1990; Lifton 1993)

Closely paralleling this is the notion of multiple epistemologies. Where once it was assumed that the goal of rational thought was to find the one right way to ask the one right question and get the one right answer – one right belief about belief – we now find that there are many ways and that the search for truth requires some understanding of the knower (and the lived experience of knowing) as well as of the thing known. Some think this undermines science; others think it takes science a great step forward. Piaget insisted that epistemology itself can be studied concretely and empirically – not just argued about in the abstract – and that in doing so we begin to understand how different people, as they mature, form different ways of understanding truth.

All of these conceptual shifts have been underway for decades, and yet most of us still live - or believe we do, or think we should – in the Newtonian cosmos, the unitary self-concept, the epistemology of ultimate and unchallengeable truth located *somewhere*, whether in

social tradition or holy writ or scientific textbook.

Put this way the challenge sounds almost insurmountable, but it may well be that what Kegan calls the new order of consciousness is not so remote after all, but is right in front of us if we but open our eyes to it. That, of course, is the ancient message of enlightenment, East or West: the message that freedom from the sense of separateness, from the sense of self as a "skin-encapsulated ego," from the confusion of doctrine with truth, is the human birthright. We are told again and again that enlightenment is not a secret, and that the discovery of it is not the acquisition of alien information. The message is seemingly paradoxical, but consistent:

- that *satori* is a perfectly normal state of mind. (Suzuki 1964: 97)
- that enlightenment is finding something you have never lost. (Nisargadatta 1982: 143-44)
- that the challenge of existence is to become what you are. (Nietzsche 1974, first published 1846: 159)

So the work of the enlightenment project is not so much a matter of "thinking out of the box," but rather one of building a bigger box, a larger field of vision within which we can see the emergence of the Eastern enlightenment traditions as a response to an evolutionary problem – the cognitive limitations that the human species had imposed upon itself in the process of developing language - and see also that many trends of current thought and scientific research are responding to that same problem.

In this paper I have focused mainly on psychological research, which I think is an extremely important part of the project - perhaps even its cutting edge - but certainly not the whole thing. We are in the process of telling the whole human story in a new way, and that is a huge undertaking; even "interdisciplinary" is a rather mild term for it. It goes beyond any categories of science and scholarship, philosophy and theology; there is plenty of work for all hands.

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