

BOOK REVIEW

THE GREAT ADVENTURE: TOWARD A FULLY HUMAN THEORY OF EVOLUTION

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David Loye (ed.), *The Great Adventure: Toward a Fully Human Theory of Evolution*, New York, State University of New York Press, 2004, ISBN 0-7914-5924-1.

“Everyone is talking about evolution, but nobody is doing anything about it” complained an anonymous radio commentator recently. This book is an attempt to do something about it. According to David Loye, its editor, “the single greatest shortcoming of twentieth century science was its failure to achieve a fully human theory and story of evolution” (p.1). Darwin has been misrepresented by the Neo-Darwinists who, Loye argues, ignored his discussions of love, moral development and consciousness, instead focusing on biological evolution via chemistry and biology. The purpose of the book is to accelerate the development of a full spectrum evolutionary theory using systems science and humanistic, transpersonal and positive psychology not only to advance science but to orient people for action, action “to end the inanity into which our species has fallen” (p.2). It is an assault on the reigning Neo-Darwinian hegemony and the social order it legitimates. The contributors, coming from a diversity of disciplines, are members of the General Evolution Research Group. This was formed in 1986 at the instigation of the systems theorist, Ervin Lazlo, the founder and editor of *World Futures: The Journal of General Evolution*. Their work provides original contributions to the evolutionary theory of consciousness, partnership, communication, creation, love, human agency and creative action, and examines cultural, social, economic, political, technological, educational, moral and spiritual evolution. The contributions are designed not merely to advance our understanding of these phenomena, but to provide ideals for people to realize. The book is designed for scientists, general readers and students, and it offers sample course

outlines for a full academic year. A web site, www.thedarwinproject.com is designed to interlink global efforts contributing to this project.

While working towards a full spectrum evolutionary theory and considering all dimensions of this, the book is most concerned with developing humanistic psychology as a form of evolutionary psychology to support a democratic social structure. While challenging mainstream evolutionary theory, it also offers a challenge to mainstream psychology. Humanistic psychology, that is psychology which recognizes that the qualities of being human are real, not illusions, has been looked down upon by mainstream psychologists as “unscientific”. Re-conceiving humanistic psychology as evolutionary psychology in accordance with cutting edge developments within the natural sciences puts it in a much stronger position to challenge mainstream psychologists. Defending and developing humanistic psychology in this way reveals the possibilities open to us and supports the quest for a more humane, democratic and creative society. Riane Eisler argues that two basic models have functioned as “attractors” for social and ideological organization in human history: the *domination* model and the *partnership* model. This dichotomy is used to analyse how a mounting global partnership movement has sparked intensified dominator systems-maintenance pressures, associated with the idealization of “masculine” aggression and conquest. A number of the contributions are concerned to support Eisler’s arguments and show the superiority of the partnership model and how it can be realized. Raymond Trevor Bradley analyses the brain and psychosocial processes by which purposeful collective behaviour is generated. Kenneth Bausch and Alexander Christakis (a cofounder of the Club of Rome) describe what is now a well worked out method for structuring dialogue to advance organizational democracy and facilitate “conscious evolution”. Alfonso Montuori, Allan Combs and Ruth Richards examine creativity, showing what are its characteristics, how these can be explained, and then attempt to show how creativity can be fostered.

A range of theoretical developments in science are drawn upon to support such characterizations of human existence. These include non-linear thermodynamics, chaos theory, complexity theory, autopoiesis and developments in field theory. The first chapter by Ervin Laszlo provides an overview of developments in science transcending the mechanistic and atomistic physics of Newton. Sally Goerner’s contribution, arguing for “dynamic evolution” and a “web view” in place of the mechanistic world-view, offers a synthesis of these theoretical developments. This synthesis is characterized by her as “integral science” which she portrays as central to the development of an “integral society”. The new form of civilization which will emerge from this will become an “integral age”. Somewhat different theoretical developments are invoked by Bradley who, as a collaborator of Karl Pribram, builds on developments in the concept of field and on holographic concepts.

Being very sympathetic to the goals of this book, my own interest was in whether this book would serve to advance its cause. To judge this, it is necessary to have some idea of what are the obstacles that need to be overcome. One of the problems with the book is that these obstacles were not fully acknowledged, except in an appendix and the

end of the book. Characterizing what is being called for as a paradigm shift or evolution to a new world-view or new age, looking back to antecedents of this project (including Darwin himself in his later work) as having been unfortunate in not having had a greater influence, does not do justice to either the history of the tradition of which they were part or the challenges they faced. The challenges have been of two kinds: the relationship between science, ideological struggles and political forces on the one hand, and on the other theoretical problems of developing a new form of science that can give a place to the phenomena the authors are investigating.

When Loye laments to the lack of attention paid to Darwin's more sanguine views about human nature in his late work he neglects to point out that theories of evolution had been developed before Darwin supporting a more sanguine view of human possibilities, but for this very reason gained little acceptance. (In his contribution, Salthe does give a broader historical picture of evolutionary theory). The world-view that Goerner defends is an updated version of the evolutionary cosmology defended by Schelling in 1799 to support a vision of the future as a peaceful world-order in which the freedom and creative potentiality of people would be fully realized. This world-view was anathema to the ruling elites because it implied that the existing order would be overcome. One of the main reasons that Darwin was able to make the theory of evolution respectable, as Robert Young pointed out in *Darwin's Metaphor*, is that he reformulated it in a way that legitimated rather than undermined the legitimacy of Victorian society. He did this by metaphorically projecting the brutality of the unbridled capitalism of Victorian England along with its imperialism onto nature, characterizing the struggle for survival whereby the weak are driven to the wall as the engine of evolutionary progress. With variations, this is the world-view that has been embraced by most ruling elites throughout the world ever since, and it is hardly surprising that those opposing such a world-view have come under attack, been dismissed or ignored. It was for this reason that in the 1970s, as the ruling elites made a determined attempt to overthrow the post-Second World War social democratic consensus, the socio-biology of E.O. Wilson and Richard Dawkins received instant support, where their opponents had difficulty, and as Loye notes at the end of the book, are still having difficulty, having their ideas heard. The Social Darwinism that had been discredited by the Nazis has been revived. Ideological dominance is being actively maintained by, among other things, an unprecedented assault on the autonomy of universities and research institutes, reducing them to businesses selling "knowledge" as a commodity, thereby eliminating any research or teaching that cannot be sold for a profit. While there are signs that the Neo-Liberalism and the Neo-Conservatism which emerged triumphantly from this struggle have lost some support in recent years, it is hard to share the optimism exuded by the writers that the development of an integral science now, finally, heralds a new, harmonious world order.

Failure to fully appreciate this is evident in the schematic histories of the evolution of humanity offered by the contributors to the book. It is evident in Laszlo's suggestion that, after the Age of Theos and then the Age of Logos, we are now entering the Age of Holos, "the embodied understanding that we are part of a larger system" (p.xii). Here,

as in Goerner's contribution, there is not enough acknowledgement of conflict and the possibility of decadence and failure. To some extent, Eisler avoids this limitation by defending a multilinear theory of cultural evolution, acknowledging that the domination model and the participatory model do not follow each other but have existed throughout history in opposition to each other. This dichotomy corresponds to the metaphors of US society identified by George Lakoff as the patriarchal family and the caring family. But Lakoff noted how difficult it is to maintain a caring family and that there are also indulgent and neglectful families. Although Lakoff only hinted at this, I think it is evident that the success in the 1970s and 1980s of the patriarchal model of society promoted by the Neo-Conservatives over the caring family model on which the New Deal had been based was at least partly because the caring family model had degenerated into the indulgent or neglectful family model. This made it an easy target for those calling for a reaffirmation of old values. Even Eisler does not do justice to the diversity of human possibilities, the complexity of the struggle between different forms and the ways in which these can fail.

The other major problem for those promoting a fully human theory of evolution is theoretical. It is not only a matter of developing an adequate theory for the phenomena being investigated; it is a matter of developing a new notion of theoretical adequacy. Explanation in science has been associated with efforts to show that what is being explained is really only a manifestation of something else. That is, reductionism is not merely a particular theoretical option; it has been identified with successful explanation. Associated with this, it has been presupposed as a constitutive principle of science that the world functions deterministically. Once the real beings which explain everything else have been identified, it is assumed that these are able to explain everything else because they operate according to deterministic laws. This assumption follows from the further assumption that theories must eventually be formulated as mathematical models if they are to be taken seriously. That deterministic laws nowadays are characterized as symmetries does not alter this assumption. If this is the case, then real evolution, evolution that generates something really new, and real creativity, must be illusions. One reason for the success of Darwin's theory of evolution is that by providing a mechanism to account for change (through variation and selection) which was compatible with this model of explanation. The development of Neo-Darwinism and the synthetic theory of evolution was largely a matter of refining this explanation to exclude anything inconsistent with this model. In the process, the phenotype was virtually eliminated from evolutionary theory, reducing the theory to an account of how some strings of DNA have survived at the expense of others. This effectively reduced evolutionary theory to a tautology, since fitness was defined by what had in fact survived; but this absurdity was insignificant compared to the achievement of having developed a fully reductionist theory of evolution. It had explained away mind and life.

These assumptions about explanation have not been challenged by most of the advances in science embraced by the contributors to this book. The general theory of relativity is entirely within the tradition of classical physics in this regard. In its conven-

tional formulation, quantum theory only gives a place to indeterminacy in the world by utilizing two incompatible deterministic theoretical models of reality. This has allowed the classical model of scientific explanation to be retained at the expense of abandoning realism. When Warren Weaver argued that science should address the problem of “organized complexity” in a lecture in 1947, a lecture which eventually inspired the development of complexity theory, he was assuming that such a science would be reductionist. Much of recent complexity theory is really a vindication of this reductionist project. The kinds of order in the world that the opponents of reductionism pointed to from Herder, Goethe and Schelling onwards, and on the basis of which they struggled to develop radically new ways of thinking, are now treated as nothing but the effects of large numbers of components interacting with each other. While people, including contributors to this anthology, invoke the notion of “self-organization”, the challenge of even making sense of this notion has not been adequately addressed. We have deterministic chaos and deterministic “emergence”, implying that chaos and emergence are not truly real, even if it is impossible for practical reasons to predict the future of chaotic systems or “creative” systems at the edge of chaos.

For the most part, the contributors appear unaware of the difficulty of this problem. No doubt Stan Salthe, the only professional biologist represented in the anthology, is fully aware of this. Elsewhere Salthe has aligned himself not only with complexity theory, but also with hierarchy theory, biosemiotics and endophysics, each of which have offered new ways of conceiving of scientific explanation to address this problem. However, Salthe’s contribution to this volume focuses on defending natural philosophy, the kind of philosophy required to address such problems. While he discusses specification hierarchies (which is really a revival of one aspect of Aristotelian science) he does not discuss scalar hierarchies and the radically new notion of causation as constraint which has been developed from hierarchy theory. Work by hierarchy theorists, biosemioticians and endophysicists appear to have had little influence on the other contributors. Bradley also appears to be aware of the immensity of the problem. His contribution is an extraordinary synthesis of theoretical ideas from Kurt Lewin, Jean Piaget and Karl Pribram which does offer something new in this regard. This anthology thereby also presents a challenge: to integrate hierarchy theory, biosemiotics and endophysics along with Bradley’s synthesis with other advances in science embraced by the contributors.

In an appendix at the end of the book, Loye complained that advances over orthodox Darwinian science “were disappearing into journals and academic publishers that reach at best the tiniest of fractions for readership, almost none of which had either the power or the interest in doing anything to better our world in any fundamental way.” What we have is “a veritable flood of so-called science not only legitimizing the late twentieth-century wave of conservatism and protofascist repossessing the United States and elsewhere but also the “no-holds-barred” rise of predatory new multinational power elites in the media and in business and government more generally” (p.311f.). If the goal of the book is to contribute to opposing this situation, then it fulfils its intentions. It is a significant contribution to the development of an evolutionary theory that can

replace the mainstream Neo-Darwinian synthesis. It should inspire others to take up this project. The vision offered, the ideas and arguments presented, the differences between the contributions and the links provided to similar works and to other people engaged in this project, should inspire others to contribute to this on-going cultural struggle.

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