

as the United States Public Health Service, provide a rich account of a key piece of psychology's history of the evolution of professional ethics and, more broadly, professional practice.

The box is wholly eliminated in the final two chapters of this book, as Rutherford's story describes the transformation of operant behaviorism to the self-help industry, in which individuals are encouraged to be their own behavior modifiers (focusing principally on weight control and assertiveness training), and finally, in the midst of the counterculture movement, to newly designed communities whose founders and participants yearn for a new society, one free of the social, material, political, and environmental problems of 1960s America. This final chapter on *Walden Two*—inspired utopias focuses on two such communities: Twin Oaks in Virginia and Los Horcones in Sonora, Mexico. The selection of these provides an intriguing contrast of two successful communities, one of which underwent considerable evolution with increasing influence from humanistic psychology, whereas the other remained essentially true to its behaviorist roots. Readers will find the information on the founding and evolution of these two communities to be fascinating and inspiring.

This book is the first detailed account of the myriad applications of Skinnerian behaviorism beyond the animal work that began the field of operant psychology. Armed with an informed understanding of Skinner's ideas, it provides an objective and contextualized description of the successes and failures that grew from the uses of this technology. In the third and final volume of his autobiography, Skinner wrote, "My colleagues in the Department of Psychology were ethical and moral men, but they seldom thought of how their science could be used to improve the world" (Skinner, 1983, p. 46). This book illustrates that Skinner and his disciples thought a great deal about how to improve the world and that they sought to use their science toward that end. But improving the world is about more than good intentions and a viable technology. It is about the interplay of science and human nature, ultimately a story of success and failure. Rutherford has helped us understand both.

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Response to Richard Weikart's Review of *The Tragic Sense Of Life: Ernst Haeckel and The Struggle Over Evolutionary Thought*

Modesty, perhaps, prevents Richard Weikart from mentioning that among the "distortions" he detects in my book several are objections to his own assessment of Darwin and Haeckel. I had expressed my reservations about his thesis—made patent in the title of his book *From Darwin to Hitler*—even before the publication of my own book. The editors of

JHBS have invited me to respond to his review, since they were unaware of this standing dispute.

Weikart thinks I, like Haeckel, have a “hatred for religion.” I will admit to being at least highly suspicious of the kind of evangelical fervor and dogmatically constricted vision displayed by many fellows of the Discovery Institute. But I do not assume membership in this Intelligent Design group to be an automatic disability for doing disinterested history of evolutionary biology or for judging such history.

There does, nonetheless, seem to be strong evidence that personal grievance and religious conviction have obscured Weikart’s vision on some issues—he is, though, remarkably clear sighted about most of what he says in the first three paragraphs of his review. Lest, however, a point-by-point rebuttal of the rest exhaust the reader’s patience, I will simply point out, more generally, how the prejudices of party can dim one’s perception, and then add a few instances to substantiate my observation.

Weikart says that “Richards correctly argues that Haeckel did not contribute to Nazi anti-Semitism.” He then rattles off instances in which he maintains that I omitted the ways in which Haeckel was an anti-Semite. That certainly covers all possibilities. Weikart believes I deemphasize Haeckel’s racism. But I could hardly deny that Haeckel believed in a hierarchy of human races—that’s a main feature of his human evolutionary trees, which I treat at some length (pp. 244–250). I did, however, expend several pages in my book (pp. 269–276) examining how we should understand the charge of racism against Haeckel made by Weikart and others, especially in the recognition that virtually every naturalist and anthropologist of the nineteenth century maintained the existence of a hierarchy of races. Whether such beliefs *per se* implied any moral culpability was a question I dwelt upon in an appendix to my book.

In my book, I showed that Haeckel’s evolutionary tree of progressive development, in his 1868 *Natürliche Schöpfungsgeschichte*, graphically depicted the Semitic races, the Jews and Berbers, as at the same level of development as the Indo-Germans. Weikart objects that I negligently passed over the fact that in the 1870 edition of the book Haeckel portrayed the Jews as less progressively developed than the Indo-Germans. But about this, he is simply mistaken. I specifically indicated exactly what he contends I did not. I wrote: “Stem-trees in subsequent editions of the *Natürliche Schöpfungsgeschichte* place the Jews just a bit behind the Indo-Germans. In the text of the first edition, Haeckel does say that it is from ‘the Indo-German branch that the most highly developed cultural peoples spring’” (p. 246). I did put that in a footnote to the pertinent text, so perhaps Weikart did not cast his eyes down to the finer details. Haeckel’s attitude reflected that of the German Mandarin, not that of the anti-Semite. When specifically queried about anti-Semitism, he disavowed that “prejudice” and praised *die gebildete Juden* as critically important elements of German culture (pp. 273–275).

Weikart accuses me of committing the transgression of “euphemism,” a sin apparently unknown to Dante. The charge is made in response to my account of Haeckel’s view of two kinds of unhealthy artificial selection, namely “military selection” and “medical selection.” In military selection, according to Haeckel, the best and the brightest were sent off to war to be slaughtered, while the moral weaklings and malingerers were left to man the bedrooms, which he regarded as having a deleterious effect on the population—hardly the thesis of an aggressive, Nazi-like militarist. Medical selection occurred when doctors intervened to keep alive infants who were suffering from extremely debilitating diseases—the kinds of disease Haeckel himself treated as a young doctor. I didn’t call this infanticide, since Haeckel in this instance made no positive recommendations about actually taking an infant’s life. I did point out that this “eugenic” suggestion would, nonetheless, be quite upsetting to many people, even if comparable decisions are made by doctors today; their withholding of treatment in such

cases, however, is not commonly considered infanticide, except in certain religious quarters. I mentioned in this context that I would take up in an appendix the charges of immorality against Haeckel and would investigate the principles by which historians make moral judgments about their subjects. I didn't try to bury these problems in the appendix, but wanted to take the time for a more thorough consideration.

Weikart thinks my most egregious distortion is that I maintained that Nazi officials quickly came to reject Haeckelian biology after an initial recruitment phase, a phase in which some Nazis argued that not only Haeckel but other intellectuals of the past (e.g., Goethe, Humboldt, etc.) would have endorsed the party were they alive in the 1930s—Haeckel died in 1919. Weikart complains that I've only found three articles in which Haeckelian biology was so dismissed. He neglects to mention that one of those articles was authored by Günther Hecht, who represented the National Socialist Party's Department of Race Politics (*Rassenpolitischen Amt der NSDAP*), and it was published in an official organ of the party. Another article was published as an edict by the Saxon Ministry for Bookstores and Libraries, which required the expunging not only of all books by Jewish authors but also of works by Ernst Haeckel. Rather authoritative, I thought. I certainly recognized Victor Franz (whom Weikart quotes) as a "party member," though not a party *official*; Franz found a living serving as custodian of the Haeckel archives and director of Haeckel-Haus from 1935 to 1945 (p. 445). I even gave an extended account of the publications of this "active Nazi," who was dismissed from his position after the war—ah, but I did so in a footnote.

In the nineteenth century, a host of religious objectors readied the stake for Ernst Haeckel because of his evolutionary views; they brought unwarranted charges of fraud to indict Darwinism generally and Haeckel's defiant materialism specifically. Contemporary Scientific Creationists and Intelligent Designers have continued to pile on the faggots, thinking that comparable charges would comfort their own theological distempers. Their judgments were often shared by reputable scientists—Stephen Jay Gould for one—who were unduly influenced, I believe, by charges of anti-Semitism against Haeckel. My book was motivated by the belief that a more dispassionate examination of the man and his works might reveal another historical figure, whose science could not be so easily dismissed. There is no doubt that each of us comes to history with a background of assumptions, beliefs, and attitudes. The historian, though, must be self-reflective and vigilant; if not, such help will be provided by others.

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