

## Evolutionary Thought in Psychology: A Brief History<sup>1</sup>

By **Henry Plotkin**

Blackwell, 305 Main Street, Malden, MA, 2004, 169pp., ISBN 1-4051-1377-4 [Hdbk, USD\$54.95].

Reviewed by **Stephen M. Colarelli**

Dept. of Psychology, Central Michigan University, Mt. Pleasant, MI 48859, U.S.A.  
[colar1sm@cmich.edu; www.chsbs.cmich.edu/stephen\_colarelli/]

Charles Darwin was interested in psychology, and he had little doubt that the theory of evolution by natural selection would ultimately go a long way towards explaining human psychology. At the beginning of the 20<sup>th</sup> century, psychology was, in some quarters, allied with biology and evolutionary theory, and it seemed likely that evolution by natural selection would become a formidable paradigm in psychology. For example, a young John Watson did research in what would now be called classical ethology, a precursor to modern evolutionary psychology, Conway Lloyd Morgan and James Mark Baldwin were staunch Darwinists, Freud viewed human mental life as ultimately biological, and William James argued for a more functional psychology, anticipating the concept of *adaptations* in psychology. Then, suddenly, evolutionary theory disappeared from the psychological map for the next *seventy* years. What happened? Henry Plotkin's *Evolutionary Thought in Psychology: A Brief History* provides a concise account of this "gaping, and intellectually shameful, hole in the body of psychological theory" (p. 8).

Before he gets to the heart of the matter, Plotkin sets the stage with two background chapters. In the first chapter, he suggests that psychology and evolutionary biology have curiously parallel histories. They both have long, non-scientific provinces. They had their share of schisms and controversies, often with resistance akin to what Galileo encountered when he published his theory about the heliocentric solar system. This similarity may exist because they both attract their share of ideological baggage—how we view (or should view) ourselves, and how we might improve and lead our lives. In the second chapter, Plotkin traces some key ideas in the intellectual history of evolutionary thought. These include the nature-nurture debate (including Plato's *Meno* and Locke's blank slate), functionalism (starting with Aristotle's teleological functionalism), pre-Darwinian notions of transformation of species (as espoused by Buffon, Erasmus Darwin, Linnaeus, and Lamarck), and social Darwinism (as posited by Spencer).

Plotkin lays the principal blame for derailing evolutionary thought in the social sciences to Lamarck and Herbert Spencer. Their theories provided a wrongheaded justification for social Darwinism and "scientific" notions of racial and class superiority—Lamarck through

---

<sup>1</sup> Colarelli, S. M. (in press). [Review of the book *Evolutionary Thought in Psychology: A Brief History*]. *Human Ethology Bulletin*.

his misguided notions of evolution by *ascent* (that is, progressive perfection or *scala naturae*) and the inheritance of acquired characteristics, and Spencer through his rudimentary notions of instinct and naturalistic accounts of culture. Plotkin argues that because Spencer's writings wrongly intertwined nature and nurture, in that he believed in the Lamarckian idea of inheritance of acquired characteristics, he also motivated social scientists to cleave nature and nurture completely. Now, of course, we now know that nature and nurture are largely interdependent, but not in the form that Spencer and Lamarck assumed.

Although cause and effect are slippery in intellectual histories, Plotkin weakens his argument when he places most of the blame on social Darwinism and eugenics for marginalizing evolutionary theory in the social sciences. He overlooks several other good candidates; one of which is the spreading democratic ethos of equality during the 19<sup>th</sup> and early 20<sup>th</sup> centuries. Another includes behavioral social technologies and the belief that "anything-is-possible-if-you-work-hard-enough," which were more compatible with behaviorism than an evolutionarily informed psychology. Furthermore, the rise of industrialism and mass society created tremendous social unrest. Social instability plus pragmatic capitalism (i.e., the use of whatever works) and logical positivism (i.e., the intellectual fashion of the day) were more compatible with the social engineering programs of August Comte, Frederick Taylor, and John Watson than with evolutionary approaches. Positivist social engineering offered the false promise that experts could engineer problems out of organizations or whole societies by tinkering with training, education, and organizational structures.

Plotkin does a nice job of sketching the history of late 19<sup>th</sup> and early 20<sup>th</sup> century psychology and the nascent links between psychology and evolutionary theory. He resurrects some of the early pioneers, long forgotten now, who carried the Darwinian flag forward in psychology, notably George Romanes, James Baldwin, and Conway Lloyd Morgan. His treatment of Francis Galton, who has not been forgotten, is one-sided. He focuses only on Galton's scientific errors and their negative influence on the integration of evolutionary theory in the social sciences. For example, "[Galton's] fame rests not on any contribution to this or any other science, but on his making serious trouble for the naturalization of the social sciences," (p. 42); he neglects Galton's lasting scientific contributions and the positive impact of some of his ideas, such as his seminal contributions to inferential statistics.

Plotkin does a marvelous job of describing the role of two other culprits: behaviorism and cultural anthropology. Behaviorism's rise was not so much a reaction against evolutionary thought; rather, behaviorism's positivist program that focused only on observable behavior was what a fledgling psychology needed to gain scientific respectability. Methodologically and theoretically, behaviorism was in a better position to advance at the turn of the 20<sup>th</sup> century than evolutionary approaches to psychology. The early theoretical and methodological limitations in evolutionary approaches precluded good empirical studies and causal explanation. Furthermore, biologists were just beginning to understand the

nature of genes, so early evolutionary perspectives tended toward a crude genetic determinism or what Plotkin calls a "primitive biologism" (p. 68). This early theorizing included the misguided idea that phenotypic behavior and complex traits (e.g., intelligence) were linked to single genes, and that genes invariantly determined phenotypic traits and behaviors. It was not until the last part of the 20<sup>th</sup> century that psychologists could effectively study how brain and endocrine mechanisms influenced psychological processes and how genes interact with the environment.

Cultural anthropology was a different story, as raw self-interest and out-group hostility played a larger role than in the case of behaviorism. Plotkin argues that the rise of cultural anthropology was, in no small measure, a reaction against evolutionary approaches in the social sciences. On the one hand, it was a classic turf war. Cultural anthropologists feared that an evolutionarily based social science would put them out of business, and this fear motivated them to drive out the evolutionary infidel. On the other hand, many leading cultural anthropologists, particularly Franz Boas and his students, were distrustful of the theory of natural selection. They argued that cultural expressions and the science of culture had little to do with biology and that everything from human sex differences to aggression were purely cultural.

Among the best parts of the book are the thick descriptions of the careers, and twists of fate, of several protagonists in these early dramas. Not only are they fascinating reading, but they show how chance events can alter the course of not only careers but perhaps of an entire discipline. For example, Plotkin devotes an entire chapter to James Mark Baldwin, who was perhaps the first bona fide evolutionary psychologist. Had Baldwin's career turned out differently, the course of 20<sup>th</sup> century evolutionary psychology may have also been different. Baldwin was the chairman of the psychology department at Johns Hopkins University and the editor of *Psychological Review*. In 1908 he offered John Watson a professorship at the university. In the summer of that year, Baldwin was caught visiting a brothel. A scandal ensued and Baldwin resigned his professorship and the editorship of *Psychological Review*. Baldwin spent his remaining years as an expatriate in Mexico and France, having little subsequent impact on American psychology and leaving no graduate students to follow in his footsteps. Before interacting with Baldwin, John Watson was a fair-haired boy in his early years at the University of Chicago, and not yet a major figure in psychology. It was only after he inherited the editorship of *Psychological Review* and chair of the psychology department at Johns Hopkins from Baldwin that his influence in psychology took off. (Ironically, Watson, too, was later forced to resign his position at Hopkins because of a sexual scandal involving his research assistant.) It is interesting to speculate what might have been the course of behaviorism or evolutionary psychology if Baldwin had visited the brothel on a different evening, or if Watson's scandal surfaced earlier, or later.

Plotkin traces, in Chapter 6, the reemergence of evolutionary thought in psychology to the development of ethology and sociobiology. He describes how, after the Second World War,

a group of European ethologists, composed of Konrad Lorenz, Niko Tinbergen, and Karl von Frisch, began to make significant theoretical and empirical advances in evolutionary perspectives on behavior with their studies of animals in natural environments. A key theoretical breakthrough of this group was the idea that instincts evolved in the same manner as morphological features, and, therefore, to understand the genesis and adaptive significance of particular instincts, behavior needed to be studied in environments in which it evolved. His discussion of sociobiology, which is the work in a variety of disciplines that takes a "gene's-eye" view of behavior, is also good. He traces the origins of sociobiology, highlighting the contributions of William Hamilton, Robert Trivers, George Williams, Richard Dawkins, Edward Wilson, Napoleon Chagnon, William Irons, and Richard Alexander. He does an evenhanded job in describing the criticisms of sociobiology and the responses of sociobiologists. If, like me, you sometimes get perplexed about the finer distinctions among ethology, sociobiology, behavioral ecology, Plotkin's concise definitions are a nice feature of this chapter.

Evolutionary psychology did not emerge as a distinct discipline until the 1980s. Thus, Plotkin devotes a short chapter to current evolutionary psychology, admitting that it is too early to attempt an historical treatment of the field. Despite the American public's hostile attitude toward human evolution (about 75% believe in the biblical account of creation) and social scientists' hostility toward biological explanations of social behavior, a number of factors made the 1980s an opportune time for evolutionary psychology to come into its own. Specifically, the rule of behaviorism collapsed, the work of Noam Chomsky and John Garcia supporting biological constraints on learning finally gained acceptance, and studies appeared in the literature showing that young infants had remarkable, apparently innate, cognitive capabilities. While the chapter on contemporary evolutionary psychology does a nice job of introducing some key issues and controversies, a little easy-to-get data would have made a convincing case about its exponential growth. Such data may have included mention that the membership of the Human Behavior and Evolution Society has soared, evolutionary psychology is now a staple in the scholarly literature (e.g., as of this writing, the phrase "evolutionary psychology" garnered 41,900 hits on Google Scholar), the number of psychology departments offering training in evolutionary psychology has grown from a handful to, at last count, 49 in the USA and Canada and to 15 in Great Britain, New Zealand, Australia, and Europe, job advertisements for evolutionary psychologists are now appearing in professional association newsletters, and the first generation of outstanding young scholars trained as evolutionary psychologists are starting to hit their professional strides.

Although generally a fine book, it does have some shortcomings. Plotkin does a disservice by hammering on the racial taboo in biology and evolution. He frequently dredges up the ghosts of discredited social Darwinism and Galtonian eugenics. By beating these dead horses, he reinforces the notion that *any* discussion of evolution and race should be taboo. This type of self-flagellation has the effect of stigmatizing intelligent, well-meaning, and ultimately beneficial investigations of biology and race. We know, for example, that some

diseases are prevalent in people of particular racial backgrounds; sickle cell anemia and hypertension in African Americans, obesity and diabetes among the Pima, Tay-Sachs among Ashkenazi Jews, and lactose intolerance among Mediterranean populations. Exploring these phenomena led to advances in the understanding and treatment of diseases that tend to be associated with particular racial groups.

While many of the old ideas about eugenics, such as forced sterilization or state sanctioned selective breeding programs, are abhorrent to our modern sensibilities, eugenics of a different sort, made possible by advances in molecular biology, medicine, and genetics, is very much with us today. Scientific and philosophical evolutionary approaches to modern eugenics (e.g., cloning, deliberate genetic modifications of plant and animal organisms) have much to offer. For example, we know that genetic variation is essential for adaptation and hybrid vigor, and that the introduction of new species to ecosystems can have nasty, unintended consequences. These are lessons that should not be lost as we embrace new genetic technologies.

Plotkin also gets a dig in at the "mental testing movement," which he assures us is fully discredited now. Again, by taking a simplistic, one-sided view of a complex phenomenon, he does a disservice to the advances in psychological measurement and to the benefits people have accrued from mental tests. I cannot help but note the hypocrisy of some of the most vehement critics of mental testing who work in universities that regularly trumpet their prestige and presumed superiority by making a big deal out of their students' high admission test scores.

Although the days of social Darwinism, crude eugenics, and primitive biology are long gone, the idea of biological bases to human social and mental behavior still evokes visceral reactions in some quarters, which precludes reasoned, scholarly debate. Social constructionists still unwaveringly hold to the beliefs that most biological interpretations are dead wrong and that those who support biological interpretations are somehow evil incarnate.

All in all, this is a book that evolutionary psychologists and others who are interested in evolutionary psychology should have on their bookshelves. It would also be a good supplemental text in graduate seminars in evolutionary psychology. Plotkin has made an important contribution to the history of evolutionary psychology.

**Stephen M. Colarelli** (Ph.D., New York University) is Professor of Psychology at Central Michigan University. Trained as an organizational psychologist, he now considers himself an *evolutionary* organizational psychologist, studying the human animal in the modern business world.