

## EVOLUTIONARY PSYCHOLOGY AND THE INTELLECTUAL LEFT\*

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THE EMERGENCE AND REMARKABLE GROWTH of evolutionary psychology (EP) is the most controversial development in the behavioral sciences since the sociobiology dispute of the 1970s. Recent years have seen a proliferation of EP literature in the sciences, the social sciences, and even in popular culture. The astonishing range of its claimed explanatory power—from imperialism to weight gain—has won EP a growing body of support, but also a formidable assortment of enemies. Three new books—*Human Natures*, by Stanford biologist and environmental activist Paul Ehrlich; *Alas, Poor Darwin*, edited by sociologist Hilary Rose and neurobiologist Steven Rose; and *A Darwinian Left*, by the controversial Princeton bioethicist Peter Singer—illustrate the degree to which EP has impacted debate across the disciplines, and also illuminate the ways in which EP's totalizing narrative is being resisted.

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\*Paul Ehrlich. *Human Natures: Genes, Cultures, and the Human Prospect*. Washington, DC: Island Press, 2000. Pp. 543. \$29.95 (cloth); Hilary Rose and Steven Rose, eds. *Alas, Poor Darwin: Arguments Against Evolutionary Psychology*. New York: Harmony Books, 2000. Pp. 400. \$25 (cloth); Peter Singer. *A Darwinian Left: Politics, Evolution and Cooperation*. New Haven: Yale Univ. Press, 2000. Pp. 64. \$9.95 (paper).

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Evolutionary psychologists (EPists) apply Darwinian principles to the study of the human mind. They contend that human beings are endowed by natural selection with a common mental architecture that forms the basis of a universal human nature, consisting of behavioral predispositions that are as much a part of our genetic programming as opposable thumbs, language acquisition, or bipedalism. This universal nature provides the key to understanding all human cultures, regardless of time or place. To reconcile their insistence upon the psychic unity of humankind with the immense diversity of cultures, EPists advance three propositions: first, cultural variation results from the interaction of a common human nature with contrasting environments; second, our common nature limits the range of possible cultural variation—as the Harvard entomologist E. O. Wilson (1978) writes, “The genes hold culture on a leash” (p. 167); and, third, perceived differences between cultures are essentially topographical, obscuring from view important universals that can be revealed through closer investigations—the propensity to generate rich and intricate cultures being itself a universal human attribute.

In *The Imperial Animal* (1998), an important text in the pre-history of EP, Lionel Tiger and Robin Fox identified the following traits as “the behavioral infrastructure of human societies”: laws about incest, marriage, and property; habits of taboo; deference to the supernatural, and contrivances to regulate it; courtship rituals; forms of social segregation by gender; a sexual division of labor; the generation of myths and legends; the development of dance; homosexuality; adultery; homicide; suicide; and delinquency (pp. 14–15). According to EP, it is the existence of such perennial traits that enables us to understand, for example, the motivations of characters in the plays of Shakespeare or Sophocles, even though they were written in times radically different to our own.<sup>1</sup>

Of the various universals postulated by EPists, two are of fundamental importance to its overall account of human behavior. The first is an interpretation of altruism, according to which individuals’ apparently altruistic acts are in reality based on calculations intended to promote gene replication, either through direct benefits to kin, or through the expectation of reciprocity. The second is an explanation of the behavioral characteristics of men and women in terms of the differential between their respective levels of investment in reproduction, which underlies the sexual division of labor. EPists therefore typically conclude that systems that assume unachievable levels of selflessness and cooperation, such as Soviet communism, must ultimately fail, as must models of social organization founded on ideals of absolute sex equality, Israeli kibbutzim being a case in point.

Human universals, as the products of natural selection, can only be understood in the context of the conditions in which they evolved, their “environ-

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<sup>1</sup>For an EP view of human continuities across time see Pinker (2000). For an EP approach to literary criticism see Carroll (1995).

ment of evolutionary adaptation” (EEA). Consequently, human beings have the mental apparatus appropriate to the survival and gene-propagation needs of hunter-gather societies on the African savanna during the Pleistocene. EPists claim that, in evolutionary terms, nothing of significance has happened over the course of post-Pleistocene human history, though obviously the range of social, economic, cultural, and political change over that period has been enormous. Central to the EP case is the assertion that many dysfunctional human behaviors and social pathologies stem from the mismatch between our Stone Age minds and the complex socioeconomic and political structures we have created since the Neolithic revolution in agriculture and the creation of settled societies. In this regard, EP has close affinities with Freud’s analysis in *Civilization and Its Discontents* (1930): the more complex the society, the more it is necessarily repressive of unconscious human motivations.

EPists insist that the whole range of human behavior, on both the micro and the macro level, can and must be explained with reference to our genetic inheritance. For example, anthropologist Donald E. Brown (1999) suggests that EP has the potential to at least partially answer all of the following questions:

What motivated British colonialism? What motivated renaissance Florentines to finance their state? Why did Brazilian men find mixed-race women so attractive? What promotes falsity in reports of human affairs? Why did historical-mindedness develop in ancient Greece and China but not India? When homosexual communities developed, why did gay men pursue sexual strategies so different from those of lesbians? Why does a Heian-period Japanese description of fear of snakes sound so familiar to a Westerner? Why have rebels tended to be youngest rather than eldest siblings? (p. 138)

But in addition to tackling such grandiose questions, EPists also offer insights into more mundane aspects of human behavior. For example, in his controversial and successful *How the Mind Works* (1997), MIT psycholinguist Steven Pinker explains ophidiphobia and arachnophobia in terms of our EEA: a revulsion at snakes and spiders is part of our genetic inheritance because it was adaptive in the conditions of the African savanna. So basic is this to our natures that we continue to avoid these creatures, even if we live in geographical regions in which they are non-poisonous (p. 386). Similarly, Pinker suggests that popular artistic taste inclines to depictions of landscapes and water because those scenes are reminiscent of our hunter-gatherer past (p. 526).

EP’s claimed potential to explain such mundanities has enabled it to break into the self-help market. In their book *Mean Genes* (2000), economist Terry Burnham and biologist Jay Phelan offer “an owner’s manual for your brain” (p. 1). Their purpose is to demonstrate how an understanding of our behavior in evolutionary terms can help us to compensate for our harmful predispositions and thereby escape some of life’s common pitfalls. The ability to save, for example, is the essential ingredient for wealth accumulation, but Americans on

average save only around 0.8 percent of their salaries. According to Burnham and Phelan, we find it difficult to save because our brains were formed in an environment in which to save actually meant to consume: prior to the invention of preservative techniques, humans stored food in the form of fat. The authors explain the tendency of people in advanced industrial societies to gain weight in much the same way: our evolutionarily endowed desire to maximize consumption of high-energy foods makes us eat too much, while our equally genetically programmed desire to conserve energy makes us averse to exercise.

The self-help dimension to *Mean Genes* resides in the range of devices the authors recommend to thwart our genetic predispositions and align our behavior more closely with the conditions in which we now live. For example, our ability to save can be bolstered by having multiple bank accounts, with some accounts being hard to access, or by carrying less cash, or by buying property. In much the same way, food temptations can be pre-empted by filling up on low-fat foods if we know we are going to be exposed to high-fat offerings, or by not having unhealthy foods in the house. We can even turn our unfriendly genes against themselves: we will exercise more if we buy expensive exercise equipment because the propensity to conserve energy also makes us reluctant to waste money.

This explanatory and prescriptive confidence has attracted support and provoked criticism. Regrettably, all too often both positive and negative receptions of EP have been determined by political ideology. For the political right, EP's conclusions reinforce individualism and the free market. Conversely, on the left, EP is interpreted as part of the broader assault on collectivism and on the prospects for more cooperative and egalitarian social models. Moreover, EP's stress on human universals and on innate behavioral differences between the sexes simultaneously conflicts both with the left's current preoccupation with diversity and multiculturalism, and with its feminism.

All three books under review here confront the political implications of EP for the left. In *Human Natures*, Paul Ehrlich is concerned to bolster the case for progressive possibilities by exposing the weaknesses of scientific arguments that purport to close off some models of social, economic, and political organization on the grounds that they conflict with the inescapable realities of a universal human nature. Ehrlich tests the claims of EP and related forms of genetic determinism against rival scientific accounts, in the process constructing the case that there is inevitably a plurality of human natures that cannot be "read off" from genetic endowment, regardless of recent dramatic advances in molecular biology. *Alas, Poor Darwin*, edited by Hilary and Steven Rose, is an eclectic ensemble of essays assailing EP from the perspectives of both evolutionary and social science. Yet despite the broad spectrum of their disciplinary approaches, the contributors share a common goal of exposing EP as pseudoscience in the service of conservative—or even reactionary—politics. By contrast, in *A Darwinian Left*, Peter Singer internalizes much of the EP analysis and

argues for the potential utility of Darwinian interpretations of human nature for political progressives.

Both *Human Natures* and *Alas, Poor Darwin* question EP's use of existing science. Ehrlich's book successfully doubles as both an argumentative tract and a highly readable and comprehensive introductory survey of human evolution. Ehrlich sees EP as a "naturist" intervention in a "nature versus nurture" debate that he regards as a scientific and philosophical *cul de sac*. In Ehrlich's analysis, attempts to dichotomize genes and environment must always fail. He compares attempts to isolate the respective behavioral contributions of nature and nurture to a geometric imponderable: whether the length or the breadth contributes more to the area of a rectangle (p. 6).

But at least geometric length and breadth are distinguishable entities, whereas Ehrlich stresses the conceptual inseparability of the organism and its environment. To some extent his views resemble those of Richard Lewontin (1991), who challenges adaptationist evolutionary theory with constructivism, which posits that organisms do not encounter environments and then adapt to them or die; rather, they construct their own environment. The argument is a kind of reverse Lamarckism: whereas Lamarck mistakenly thought that changes in the external world cause changes in the internal structure of the organism, Lewontin contends that an organism's genes, by influencing its behavior, physiology, and morphology, play a role in shaping its environment.<sup>2</sup>

Ehrlich's proposed route out of the nature/nurture impasse is "gene-culture coevolution," a concept he helped pioneer in the 1960s. Coevolution between species is widely accepted: when two species are ecologically intimate, such as parasite and host, or predator and prey, they become major sources of selection operating on one another. The coevolution of biology and culture excites more debate, though Ehrlich's examples are compelling. Agricultural practices are cultural artifacts but they alter the evolution of human blood cells. Similarly, human scientific culture devised DDT and, as a result, natural selection has produced increasing numbers of DDT-resistant insects. Even human perception is shaped by culture as well as physiology, as in the case of the Mbuti Pygmy who, on leaving the Ituri Forest in the Congo, saw distant vistas for the first time and could not initially make the perspective adjustments necessary to understand that the apparently small animals many miles away were actually large buffalo (pp. 133–34).

Even if the distinction between genetic inheritance and environmental factors could be maintained, Ehrlich argues that the genetic determination of behavior would be a physical impossibility because of what he terms "gene

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<sup>2</sup>Ehrlich agrees with the substance of Lewontin's case regarding the environment-altering traits of organisms but holds that aspects of his position are too extreme. For example, animals can alter the microclimate, but they have little impact on macroclimatic conditions. See Ehrlich, p. 338, n. 33.

shortage” (p. 4). Humans have in the region of 30 to 40,000 genes, and our brains have around a trillion nerve cells, with perhaps as many as 1,000 trillion synapses connecting them. With such a gene-synapse ratio, the human neural network can be only partially governed by genetic information. It must, therefore, be fanciful to think in terms of detailed individual or group behaviors being encoded in human DNA.

Human universals constitute the strongest evidence of genetic governance. Yet Ehrlich is skeptical about whether it is meaningful to talk in terms of universal human traits. To Pinker’s contention that humans have a universal fear of spiders and snakes, Ehrlich juxtaposes Jared Diamond’s observation about the people of New Guinea, who handle potentially lethal snakes and spiders and respond to European phobias with incomprehension and amusement. Ehrlich therefore concludes that such behaviors are almost certainly cultural, rather than natural, phenomena (p. 124).

Ehrlich counters determinist analyses with a defense of free will that is not only philosophical but neurological: if our capacity to make choices is an evolutionary endowment that equips us with the ability to respond flexibly to environmental contingency, it would be evolutionarily counterproductive if our range of responses were constrained by genetic overrides. Ehrlich’s preferred case study is Chang and Eng, the original “Siamese twins,” whose radically different personalities and preferences he uses to show that genetic identity does not produce identical behavior, even in combination with the greatest achievable identity of environment (pp. 9–10).

Ehrlich concludes that “Genes do not shout commands at us about our behavior. At the very most, they whisper suggestions, and the nature of those whispers is shaped by our internal environments (those within and between our cells) during early development and later, and usually also by the external environments in which we mature and find ourselves as adults” (p. 7). This complex interplay of internal and external factors inevitably results in a plurality of human natures. Whereas EPists insist that Boston socialites and the !Kung San of the Kalahari must have the same essential natures, Ehrlich argues that human nature varies considerably between less obviously divergent groups, such as musicians and sportspeople, or even Republicans and Democrats. He likens the concept of “human nature” to that of “canyon.” Clearly, there are features common to all canyons, yet every canyon is unique (p. 12).

With a more specific emphasis on recent EP, the *Alas, Poor Darwin* anthology also presents determinism as a flawed scientific rationalization of prevailing social hierarchies. One contributor, sociologist Dorothy Nelkin, adds that EP is more religious than scientific in nature—a particularly stinging accusation considering that many prominent EPists and their supporters, such as Richard Dawkins, are also leading Darwinian critics of religion. Nelkin finds EP’s religious quality in the totality of its narrative, in the confidence of its moral conclusions, and in its aspirations to prescribe public policy. More

pointedly, she alleges that Dawkins's *The Selfish Gene* (1989) is essentially a theological narrative, in which DNA is immortal, and the individual body counts for nothing (Rose and Rose 2000, p. 23).

*The Selfish Gene* remains one of the central texts in the materialist analysis of human behavior and is singled out for detailed criticism in *Alas, Poor Darwin*. Gabriel Dover, a geneticist, argues that EP is essentially Dawkinsist rather than Darwinist, and that the "selfish gene" argument is a highly elaborate misconception. While much of Dawkins's case rests on biological studies of altruism, Dover points out that altruism is of little or no relevance to vast areas of biology, such as the study of viruses, microbes, plants, fungi, and the majority of animal species. Dover also attacks contemporary evolutionary theory's focus on genotype over phenotype. The only free-standing biological entity that is capable of replication is the cell, which is a phenotype. Genes themselves are propagated only through phenotypes, which "selfish" genes must "cooperate" to construct.

Dover also takes Dawkins to task for his narrow focus on the natural selection model of evolution, a criticism picked up in more detail in the contribution from Stephen Jay Gould—a veteran of the left-wing counter-offensive against sociobiology. EPists project the mechanism of adaptation through natural selection into the realm of human behavioral explanation at a time when it is increasingly understood that adaptationism is an insufficient account, even within the traditional confines of evolutionary biology. For Gould, EP is part of a "fundamentalist" reaction to a Darwinian pluralism that Darwin (1859) himself anticipated when he cautioned that "Natural Selection has been the main but not exclusive means of modification" (p. 6). Gould himself has made significant contributions to the growing pluralism with his emphasis on the evolutionary importance of contingency and his theory of "punctuated equilibrium."

Another Gould contribution to Darwinian pluralism, developed in collaboration with Lewontin, is the concept of "spandrels," an ingenious architectural metaphor for accidental evolutionary by-products. The structural complexity and integration of organisms entails that any adaptive change will create a series of by-products that may or may not then be put to adaptive use. Literacy, for example, is highly adaptive, but it must be a by-product because the human brain reached its current form tens of thousands of years before the invention of reading and writing. The consequence of spandrels is that humans will certainly possess both physical and mental qualities that simply cannot be explained in terms of the natural selection on which so much of EP is predicated.

In Gould's terms, therefore, we cannot confidently explain human behavior in terms of our adapted Stone Age minds. Furthermore, he stresses that we know precious little about those minds and the conditions in which they were formed. Paleoanthropology simply cannot supply a fraction of the scientific evidence necessary to support EP's contention that problem behaviors result from the disconnect between Pleistocene survival instincts and contemporary

society. Gould even goes so far as to dismiss the argument as “pure guesswork of the cocktail party variety” (Rose and Rose 2000, p. 119).

In similar terms, Gould also accuses the EPists of misapplying the modular theory of the mind, according to which specific mental functions are domain-specific. Modularity has been in the ascendancy since Noam Chomsky’s *Syntactic Structures* (1957) revolutionized linguistics with the theory that humans are endowed with a “language-acquisition device.” Modularity took a further step forward with the publication of *The Modularity of Mind* (1983) by Chomsky’s MIT colleague, the psychologist Jerry Fodor, and has been supported by studies of physical injuries to the brain and by technological advances such as positron-emission tomography and functional magnetic resonance imaging. However, like Gould, neither Chomsky nor Fodor are persuaded that the evolutionary origins of purpose-specific brain modules are scientifically discoverable. In *Alas, Poor Darwin*, the attack on EP’s use of modularity is continued by Annette Karmiloff-Smith, who concedes that the macrostructure of the brain is pre-specified but argues that its microstructure is formed during post-natal brain development. Consequently, human behavioral development is not genetic but ontogenetic.

EPists seek to persuade scientists that innate intellectual capacities, about which there is considerable agreement, have their basis in natural selection. But in approaching social scientists, they have a tougher job of persuasion. Two leading EPists, Leda Cosmides and John Tooby (1992), have developed a detailed critique of what they term the “standard social science model” (SSSM) that emphasizes the autonomy of the social, thereby leading social scientists to neglect the biological basis of human behavior and to concentrate on the differences between cultures, rather than their commonalities. EPists impute to the social sciences a Lockean empiricism, in which the human mind is conceived of as a tabula rasa whose content is provided by environmental experience. This manifests itself as a Marxist focus on socioeconomic conditions, a Sartrean existential confidence in the virtually limitless human capacity for self-invention and reinvention, or a postmodern insistence on the primacy of culture. Cosmides and Tooby want to replace the SSSM with a model in which psychology is the foundation of culture, and biology is the foundation of psychology. Consequently, EP intervenes in the social sciences as a form of methodological individualism—the prescription that social phenomena should be explained only in terms of facts relating to the participating individuals qua individuals. As Wilson (1978) put it: “cultures are not superorganisms that evolve by their own dynamics. Rather, cultural change is the statistical product of the separate behavioral responses of large numbers of human beings who cope as best they can with social existence” (p. 78). In other words, the whole is not greater than the sum of its parts.

EP’s biological reductionism is seen in research on child abuse by step-fathers, presented by psychologists Martin Daly and Margot Wilson in their

book *Homicide* (1988). Daly and Wilson conclude that stepfathers are more likely to abuse because they do not have the biological investment of natural parents. In *Alas, Poor Darwin*, Hilary Rose counters that this analysis cannot explain in genetic terms why the majority of stepfathers do *not* abuse—or why a minority of biological fathers do. Rose confronts *Homicide* with Emile Durkheim's *Suicide* (1897), which she invokes to defend the legitimacy of the social as a level of analysis, and to emphasize the ability of cultural forces to override genetic predisposition: the nurturing instinct, for example, was overridden by racism when plantation owners raped their African slaves and enslaved their own progeny, and by sexism in the case of female infanticide in India.

Rose alleges that EPists want to colonize the social sciences in order to secure a place from which to prescribe policy. At the same time, she notes the ironic contrast between EP's Pleistocene psychological certainties and the wide diversity of political conclusions those certainties are deployed to support: Helena Cronin, at the London School of Economics, finds EP a source of invigoration for feminism; the science writer Matt Ridley uses EP to support the libertarian case against single-parent benefits; and philosopher Peter Singer uses aspects of it to try to recast left-wing political thought on the basis of evolutionary theory (Rose and Rose 2000, p. 149).

Singer's short book, *A Darwinian Left*, draws on EP in order to suggest a way out of the political left's perceived intellectual stagnation. The implosion of Soviet communism, and the radical neo-liberal reform of the post-World War II welfare state in the West, combined to create a crisis of ideological confidence on the left. Communist parties have collapsed, and center-left parties, particularly in the Anglo-Saxon world, have co-opted Adam Smith to formulate liberalized versions of social democracy, such as "market socialism" or Tony Blair's "Third Way." Others on the left, especially in academe, have disengaged entirely from economic debate and turned instead to philosophers such as Michel Foucault or François Lyotard, and to the subjectivism of postmodern identity politics.

Singer shows little interest in these responses. In many respects, his utilitarian consequentialism makes him something of a traditional left egalitarian. Singer believes that actions should be morally evaluated in terms of their real-world impact upon human happiness.<sup>3</sup> Accordingly, he supports social democratic economic and fiscal policies. For example, he uses the economic principle of diminishing marginal utility—the idea that extra units of income are worth less to the already rich than to the poor to whom they could be transferred—to justify redistribution. Singer is also a committed advocate of voluntarism: he donates 25 percent of his income to overseas aid organizations and urges all citizens of wealthy countries to donate at least 10 percent of

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<sup>3</sup>For a single-volume introduction to Singer's thought, see Singer (2000). For a more detailed account of his utilitarianism, see Singer (1979).

theirs. Having said this, Singer's leftism is considerably more green than red. He is known mostly as a theoretician of veganism and animal rights, and he has been a Green Party candidate for the Senate in his native Australia. He supplements his utilitarian philosophy with Darwinism in order to bring animals into the pain/pleasure calculation from which they are conventionally excluded, and to expose the inadequacy of the left's traditionally humanist ethics (see Singer 1975, 1986).

But Singer also has a more basic philosophical motive for promoting Darwin to the left. According to Singer, the left's fundamental ideological error has been a failure to come to terms with human nature. He writes that "it is time for the left to take seriously the fact that we are evolved animals, and that we bear the evidence of our inheritance, not only in our anatomy and our DNA, but in our behavior too" (p. 6). The left has sometimes subscribed to the sixth of Marx's famous "Theses on Feuerbach" (1845), in which human nature is presented as nothing more than a malleable product of changes in the way society organizes its means of production. Consequently, the left has interpreted characteristics such as competitiveness, or consumerism, as merely products of a capitalist socioeconomic environment. At other times, the left has looked to Rousseau's *Discourse on the Origin of Inequality* (1754) and its account of an essentially positive human nature corrupted by the influence of private property. With an evolutionary emphasis on the continuities of human nature, Singer rejects the notion that human perfection can be realized through either progress towards a classless society of the future, or reversion to a simpler society of the past. Instead, he urges the left to engage with the realities of human nature indicated by behavioral applications of Darwinian theory.

Of course, Singer is not the first to explore the left potential of Darwin. Most famously, the Russian anarchist Peter Kropotkin, in *Mutual Aid: A Factor of Evolution* (1902), cited examples of cooperative behavior in animal species and used these examples to legitimize cooperative models of human social organization. However, for Singer, Kropotkin's attempts to draw social conclusions from observations of natural history are no more valid than those of the 19th-century right-wing social Darwinists. Invoking David Hume's *Treatise of Human Nature* (1739), Singer points to the philosophical hazards of deriving values from facts. More specifically, he argues that evolution itself is devoid of moral content and that there can be no moral consequences attached to accommodating it, resisting it, or changing its direction. Singer makes the additional point that Kropotkin's conclusions regarding cooperation in nature were in any case inaccurate: they predated biological investigations of kin selection and were therefore based on the falsified theory of altruistic individual self-sacrifice for the benefit of the species.

In contrast to almost all his fellow leftists, Singer finds progressive potential in EP's theories regarding the roots of altruism in genetic self-interest. In game theory, the "prisoner's dilemma" weakens the central assumptions of free-market

economists by demonstrating that rational and self-interested choices made by two or more individuals can work to the detriment of all participants. This explains problems such as the “tragedy of the commons”—the process whereby resources held in common are depleted because it is in no individual user’s interest to conserve them—and the under-provision of “public goods,” defined as goods that no private supplier has a market incentive to provide. The “prisoner’s dilemma” does not, however, explain human actions that are apparently motivated by a concern for the welfare of others. On a prima facie level, rational self-interest cannot explain the “voter paradox,” a term describing the tendency of people to vote, even though, statistically speaking, the likelihood of their individual vote deciding the outcome is close to zero. Neither can self-interest, traditionally conceived of, explain charitable donations or the readiness of soldiers to risk death in the service of their country.

Social scientists have become very interested in biological explanations of such behaviors. Political scientist Robert Axelrod has shown in *The Evolution of Cooperation* (1984) how the biological concept of reciprocal altruism offers a way out of the “prisoner’s dilemma.” Over multiple repetitions of the game, the strategy of “Tit for Tat,” under which a player assumes cooperation from his partner the first time, then replicates his partner’s actual behavior in future rounds, maximizes mutually beneficial outcomes. Axelrod suggests that humans cooperate in expectation of future rewards: having the status of a “giver” makes one more likely to receive. For Singer, Axelrod’s findings imply that the left should work to “promote structures that foster cooperation rather than competition, and attempt to channel competition into socially desirable ends” (p. 61). In particular, the left should try to connect social status to altruistic behavior, rather than to the “conspicuous consumption” identified by the economist Thorstein Veblen in *Theory of the Leisure Class* (1899), and satirized by Tom Wolfe in *Bonfire of the Vanities* (1987).

Singer insists that, contrary to its right-wing interpreters, evolutionary theory does not affirm the capitalist assumption that self-interest is served by the maximization of personal wealth: beyond a certain amount, an increase in economic resources does nothing to improve our chances of perpetuating our genes. It is therefore a mistake to assume that the maximization of economic growth is always the right course—it may simply increase competitive stress and diminish the net happiness that remains Singer’s principal utilitarian concern. Neither does Singer concede that EP would strengthen the conservative position on gender issues. EP maintains that women will in general prove less assertive and aggressive than men, and Singer agrees that it would be a mistake to assume that sexism alone accounts for why women are not 50 percent of CEOs or legislators. But this does not mean that the left should not work to counter residual sexism, or to support the rights of women to define the course of their own lives.

Singer accepts that he is presenting “a sharply deflated vision of the left, its

utopian ideals replaced by a coolly realistic view of what can be achieved” (p. 62) In *The Expanding Circle* (1981), Singer distanced himself from both Kantian ethical rationalism and sociobiological determinism to argue that “The shape of human ethical systems is an outcome of the attempt of human societies to cope with [the] tension between collective reasoning and the biologically based desires of individual human beings” (p. 147). Genetic predisposition cannot be ignored, and it is frequently preponderant on the individual level. However, social history indicates that we can collectively modify, restrain, and channel biological impulses, even if their presence is always a given. Therefore, unlike Ehrlich and the contributors to *Alas, Poor Darwin*, in *A Darwinian Left* Singer is concerned neither to explode EP nor to dismiss its implied limits to progressive social developments. Rather, he urges the left to work with innate human tendencies much like a wood carver works with the grain of the wood (p. 40).

But EP’s most committed opponents will deny that EP can reliably identify the direction of the grain. Ehrlich, Gould, and others have demonstrated effectively that many of EP’s postulates are more conjectural than scientific at this stage. However, EP’s hubris should not discredit the whole enterprise. Even Gould concedes that “humans are animals and the mind evolved; therefore, all curious people must support the quest for an evolutionary psychology” (Rose and Rose 2000, p. 116). Though the scientific evidence for their conclusions is unsatisfactory and incomplete, EPists’ view of the world is frequently plausible. Chomsky may be right in saying that EP is not a science but “a philosophy of mind with a little bit of science thrown in” (Horgan 1997, p. 44), or perhaps, as Harmon R. Holcomb (1996) has argued, it is a “protoscience,” possessing some, but not all, of the qualities of mature science. Either way, EPists are raising important questions and proposing interesting answers. It remains to be seen whether they can marshal more convincing scientific evidence for their case. In the meantime they should not be simply discounted: it is probably a good idea not to have unhealthy foods in the house, whether or not the temptation to eat them comes down to us from the African savanna. Perhaps they do. As Holcomb says, all sciences begin as protosciences.

EP faces a difficult task in establishing its scientific credentials. EPists are caught in a bind: when they stick to their determinist guns they fail to explain exceptions; when they accommodate exceptions by invoking the ability of humans to override their genes, they undermine their predictive (i.e., scientific) credentials. This is the basis of the anti-EP case constructed by both natural and social scientists. Unfortunately, its opponents are primarily concerned to show where EP is wrong, and exhibit little interest in where it may be right. The anti-EP natural scientists need to offer more positive explanations for why evolutionary accounts are of such apparently limited use in describing the actions of the brain as an evolved organ. And the social scientists need to explain why an increasing number of their colleagues are exploring the uni-

versal (and therefore presumably natural) characteristics of human beings as a corrective to the prevailing environmentalism.

EP's penetration into the social sciences has varied with each particular social science's receptivity to methodological individualism. It has made most progress in economics, where its theories reinforce the discipline's foundational assumption of the rational, self-interested individual. In political science, EP influences rational-choice theory, an importation from economic analysis in which political behavior is explained in terms of rational efforts at utility-maximization by political actors, be they voters, politicians, unions, etc. It has made less headway in sociology, where the SSSM emerged, and where there is long-standing antagonism towards biological determinism. Nonetheless, it has won some important ground with the publication of Gareth Runciman's *The Social Animal* (1998), and it has a constituency in mathematical sociology (see, for example, Schelling 1978). EP is even making progress in social anthropology, traditionally the social science that has most emphasized culture. For example, one of the foundation texts of "culturalist" social anthropology, Margaret Mead's *Coming of Age in Samoa* (1928), has been fundamentally reevaluated in EP terms by Australian anthropologist Derek Freeman (1983).<sup>4</sup>

EP's social scientific critics, such as those arrayed in *Alas, Poor Darwin*, should not expect its influence to disappear from their disciplines: universals are at least as problematic for the SSSM as exceptions are for EP. Historically, it has been the social scientists themselves who have attempted to import natural science methodologies into their fields and to present their conclusions as scientific propositions. Adam Smith's (1776) political economy owed conspicuous debts to Copernican and Newtonian theories of a self-regulating solar system, and Smith even wrote of a "natural price," defined as the one "to which the prices of all commodities are gravitating" (p. 51). Jeremy Bentham professed an ambition to be "the Newton of the moral sciences" (Greenleaf 1983, p. 250); and Friedrich Engels famously claimed that "just as Darwin discovered the law of development of organic nature, so Marx discovered the law of development of human history" (Tucker 1972, p. 603). By contrast, the natural scientists themselves, particularly Darwin, have usually been reticent or dismissive about the social application of their theories. The recent reversal, best exemplified by E. O. Wilson's *Consilience* (1998), is therefore something of an historical irony.

Despite its more shrill contributions, which read like salvos fired in an academic turf war, *Alas, Poor Darwin* contains pleas for a methodological plural-

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<sup>4</sup>For a brief and lucid survey of the convergence between economics and evolutionary psychology, see "Evo-Economics" (1993/94). A pioneering text in rational choice theory was Downs (1957); subsequent accounts include Dunleavy (1991). Runciman's use of evolutionary theory is criticized in T. Benton's "Social Causes and Natural Relations" (Rose and Rose 2000, pp. 249-71). For a critique of biological anthropology, see Sahlin's (1977); for a survey of evolutionary ideas in social anthropology, see Cronk (1999).

ism, the main purpose of which would be to explore the proper limits of natural science in social explanation. However, the defensiveness of left-wing intellectuals remains the weak link in the social scientific case against EP: an argument cannot be deemed right or wrong on the basis of its political congeniality. The political case against EP is also confused and contradictory: at times, EP is presented as a reinforcement of patriarchal capitalism, at others it is criticized for its political indeterminacy.

In reality, the intellectual left is likely to be the prime beneficiary if the social sciences and the humanities can be rescued from residual Marxism and obscurantist postmodernism. The physicist Alan Sokal (1998), whose spoof article "Transgressing the Boundaries: Toward a Transformative Hermeneutics of Quantum Gravity" was published in the postmodern journal *Social Text*, has written that his hoax was motivated principally by a concern for the intellectual health of left politics. But this does not mean that EP is necessarily the answer to the left's methodological and ideological problems. Singer, for example, will find that EP conflicts with his underlying utilitarianism at least as much as it supplements it. Indeed, it is curious that Singer should turn to research on kin selection and the biological basis of altruism, while continuing to argue the utilitarian case that individuals should donate portions of their income to complete strangers in the developing world: kin selection would imply that people would invest their resources in direct proportion to closeness of family relationships. Singer himself has drawn harsh criticism for the substantial sums he spends on nursing provision for his mother, an Alzheimer's sufferer, when the same amount donated to the world's poor would clearly do more for net human happiness (Toolis 1999). In all fairness, Singer has argued plausibly that societies, more than individuals, can over time rationally extend the moral circle beyond kin and other parochial associations—a view that brings him into conflict with EP's methodological individualism. A more fundamental problem is that Singer, as a Green, is also skeptical about precisely the kind of economic growth that is a necessary precondition for the kind of charitable giving he calls for: the higher their disposable income, the more likely people are to give to strangers.

Nonetheless, Singer's *A Darwinian Left* successfully exposes flaws in traditional left thinking in regard to human nature. Thomas Paine wrote in *Common Sense* (1776) that "we have it in our power to begin the world over again" (p. 109). But common sense would, in fact, imply that we have no such power: our very natures will ensure the continuation of perennial human themes. But it is not clear why Singer needs the inchoate findings of EP to demonstrate this, when the historical record itself will suffice. Singer's purposes may be better served by one of English utilitarianism's intellectual descendants, American philosophical pragmatism. To pragmatists, truth consists in enduring serviceability and practicality. The task for the political left is to examine what has

and has not worked in its own historical experience. While Soviet communism has collapsed under its own weight, the social democratic left has rethought its traditional bureaucratic collectivism and its excessive suspicion of consumer choice. The contemporary left still pursues its traditional goals of redistributing power, wealth, and opportunity, but in the context of the market economy. The result has been the widespread electoral recovery of social democratic and labor parties in the post-industrial economies of the West, and the liberalization of left parties in the developing world. Governmental and electoral experience has guided the left to this position—not psychological Darwinism.

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