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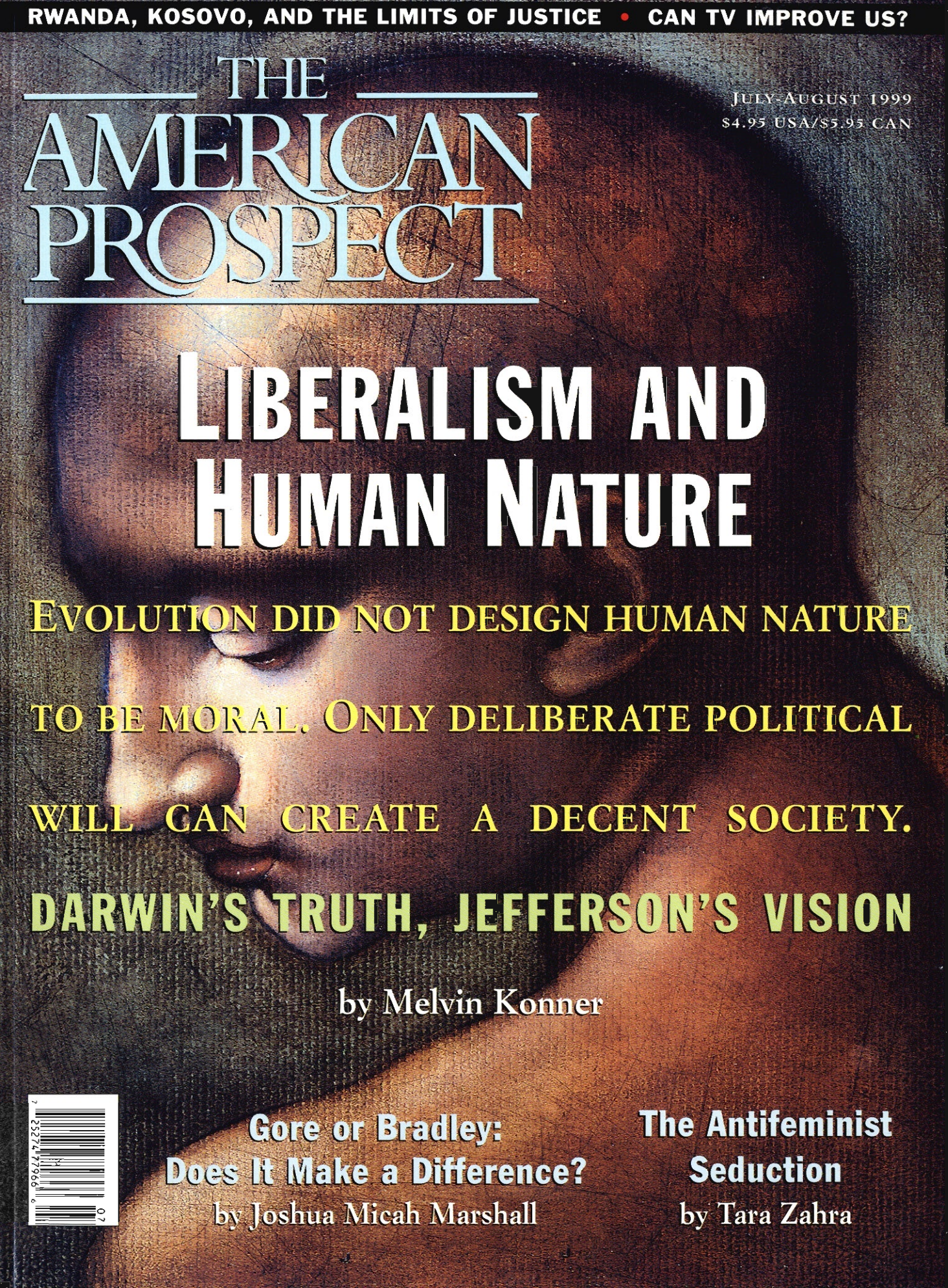

LIBERALISM AND HUMAN NATURE

EVOLUTION DID NOT DESIGN HUMAN NATURE TO BE MORAL. ONLY DELIBERATE POLITICAL WILL CAN CREATE A DECENT SOCIETY.

DARWIN'S TRUTH, JEFFERSON'S VISION

by Melvin Konner

Gore or Bradley: Does It Make a Difference?

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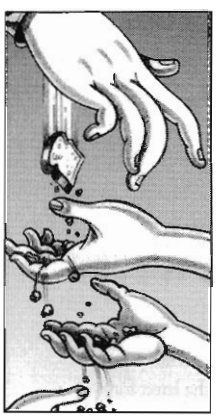
DEPARTMENTS



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COVER ILLUSTRATION BY JOEL PETER JOHNSON

Darwin's Truth, Jefferson's Vision

Sociobiology and the Politics of Human Nature

BY MELVIN KONNER

As the new field of sociobiology has emerged during the past quarter century, it has met with firm and unrelenting opposition from prominent liberal critics. Sociobiology—also known as evolutionary psychology or neo-Darwinian theory—holds that many patterns of human behavior have a basis in evolution. Because this approach often suggests biological explanations of gender roles, it affronts many feminists. It has also drawn opposition from a group of biologists on the left who have raised general scientific and philosophical objections and have had great influence in shaping liberal opinion. The scientific critics have included highly respected figures in biology: Ruth Hubbard, Stephen Jay Gould, Richard Lewontin, and Jonathan Beckwith, among others. None in this group had done direct research on human behavior when sociobiology first emerged in the 1970s. Nonetheless, they immediately perceived a grave threat to liberal values, and their opposition has persisted ever since.

However respected the source, the criticism from this group has had little effect on the direction of scientific research: sociobiology is now firmly established as an accepted branch of normal science. As a result, liberal opinion about sociobiology has increasingly diverged from scientific opinion. If liberals are to understand why this has happened, they need to consider the possibility that Gould, Lewontin, and other prominent scientific critics were wrong in their attack on sociobiology in the first place.

Liberal uneasiness about sociobiology is understandable. A bad odor hangs about any social application of Darwinian ideas. Right-wing intellectuals in the past have abused Darwin's legacy in efforts to justify colonialism, imperialism, racism, and even mass murder. But the old ideological associations of scientific ideas are sometimes a poor guide to their present incarnations. To be sure, some conservative intellectuals infer from sociobiology that liberal reforms are doomed by human nature. But sociobiology today is not nineteenth-century social Darwinism reborn. As I intend to show, there is no conflict between liberal political philosophy and sociobiology. Indeed, quite the contrary is true. A deep understanding of the foundations of liberalism and the fundamental processes of Darwinian reasoning will readily show that the opposition to sociobiology has been based on a superficial view of both. The across-the-board attack on sociobiology was ill-conceived to begin with, and it is time to put it to rest.

The Altruism Puzzle

Current intrusions of Darwin's theory into our awareness stem from the mid-1960s, when the British geneticist W. D. Hamilton proposed a solution to the problem of altruism. For traditional social scientists who see societies as functioning organisms, the existence of altruism does not pose a problem. In this view, without altruism societies would not work; groups that lacked it would not survive.

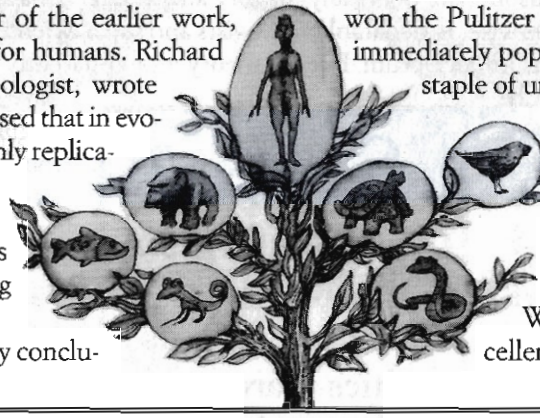
But this is no comfort to strict Darwinians, who see natural selection as operating at the level of individuals, even to the extent of disrupting the cohesiveness of

societies. In their view, natural selection should have long since erased altruism. Hamilton's solution was that evolution selects for altruism if it is directed at relatives in proportion to their relatedness, for then the altruist's kin are more likely to survive to pass on the contributing genes. Thus kindnesses are instances of universal nepotism. Reciprocal altruism, proposed by Robert Trivers in the early 1970s, was a you-scratch-my-back-and-later-I'll-scratch-yours model. Like kin selection, it required no real genetic generosity, only delayed self-interest. With these ideas, biologists seemed to have little further need for the metaphor of society as organism.

These and related ideas were organized and popularized in the late 1970s by two scientists in particular. Edward O. Wilson, a Harvard zoologist previously known for meticulous research on insect behavior, published *Sociobiology*, a sweeping, voluminous summary of the new field, and *On Human Nature*, which, like the infamous last chapter of the earlier work, suggested some implications for humans. Richard Dawkins, a young British zoologist, wrote *The Selfish Gene*, which proposed that in evolution properly understood, only replicators matter; that genes are the fundamental biological replicators; and that an organism is basically a gene's way of making another gene.

This postulate leads to a key conclusion: evolution is not mainly about survival, but about reproduction. It is about keeping some genes in the stream of hereditary material—or as Dawkins aptly calls it, the "river out of Eden"—while culling others. Survival is dandy—when it serves reproduction. But if the two are at odds, reproductive demands will win every time. This conclusion in turn bears heavily on the question of gender differences. Males should in theory be less committed, more restless, and more aggressive than females. Females should be more careful in choosing their mates and less risk-prone in their lifelong reproductive strategies. This is basically because females—in mammals, at least—have much more to lose.

These and other claims of neo-Darwinian theory were scarcely ignored in the wider culture. *Sociobiology* was heralded on the front page of the *New York Times*, an extraordinary coup for what was basically a technical treatise, and *On Human Nature* won the Pulitzer Prize. *The Selfish Gene* became immediately popular and has stayed in print as a staple of undergraduate courses ever since. And a long excerpt from Robert Wright's fiercely Darwinian 1994 book *The Moral Animal* made a rare literary cover story at *Time*.



Wilson, Dawkins, and Wright are prose stylists of rare excellence, which contributed to the

popularity of their work—and the concern it evoked among liberal biologists. Although *Sociobiology* was favorably reviewed in the *New York Review of Books* in 1975—by the respected British geneticist C. H. Waddington—a more common view was expressed in those pages later that year, in a long letter from 16 scientists, teachers, and physicians, including Steven Jay Gould, Ruth Hubbard, and Richard Lewontin, all colleagues of Wilson's at Harvard. It was titled "Against 'Sociobiology,'" and they were very much against it.

"What we are left with," they concluded, "is a particular theory about human nature, which has no scientific support, and which upholds the concept of a world with social arrangements remarkably similar to the world which E. O. Wilson inhabits. . . . Wilson joins the long parade of biological determinists whose work has served to buttress the institutions of their society by exonerating them from responsibility for social problems." Whether Wilson had done any such thing, inadvertently or otherwise, is debatable; a fair perusal of the book supports no such claim. But the letter set the tone for avowedly left-wing criticism of sociobiology ever since.

Writing a decade later in the mid-1980s, Lewontin, Steven Rose, and Leon Kamin had no doubt that sociobiology was popular because it helped to justify the economic policies of the Thatcher-Reagan era. In their book *Not In Our Genes*, they renounced the claim of objectivity for any sort of science and declared, "We share a commitment to the prospect of the creation of a more socially just—a socialist—society." They called for a "radical science movement" dedicated to "the possibility of a critical and liberatory science." Of course, this hoary rhetoric did not necessarily make them wrong, but their book was naive at best. They tendentiously attacked long outdated research on intelligence testing and struck out wildly against psychiatric and even neurological medications. Guilt by juxtaposition served in place of evidence and argument to make modern behavioral biologists of all kinds seem as much as possible like nineteenth-century racists.

Hardly anyone today would try to defend the positions on intelligence testing or psychiatry that those authors took then. Yet Lewontin, Gould, and other biologists with admittedly left-wing goals have continued to criticize sociobiology in only somewhat more muted terms. Criticism is welcome, of course. But because these scientists are so well respected—deservedly so, in the cases of Lewontin and Gould—their influence may extend beyond the power of their arguments. Neither has ever engaged in primary research in the human sciences, but both often proclaim sociobiology inapplicable to them. Gould has a well-earned major public platform in the form of a monthly column in *Natural History*, and he and Lewontin write regularly for the *New York Review*, which to its credit has also published the views of evolutionists such as John Maynard Smith.

The danger, though, is that the "anti" position may become so congenial for liberals that they ignore the almost universal acceptance of neo-Darwinian or sociobiological theory among researchers in natural history and animal behavior and among many psychologists and social scientists. Studies motivated by such theory and apparently confirming components of it have routinely been published in leading refereed journals in all these fields for many years. Indeed, one need only read regularly the rest of the magazine for which Gould writes his column to see that this body of theory is now routinely accepted.

Sociobiology has turned out to be neither the nefarious evil its critics feared, nor the complete scientific revolution its proponents hoped.

Obnoxious but Useful

Contrary to predictions made by opponents in the 1970s and 1980s, sociobiology was not a nefarious plot to give scientific credence to a right-wing policy agenda. It was not nearly that important. And contrary to early predictions of its greatest enthusiasts, sociobiology has not pushed aside the rest of the behavioral and social sciences, nor has it folded them all neatly into its wide theoretical embrace. What has happened instead is something neither side wanted to believe, but that was expected by open-minded people with no direct stake in the controversy: sociobiology has become a small but significant part of the spectrum of behavioral and social science.

Like all good theories, it is sometimes unsuccessful in particular situations. Even in the nonhuman world, nepotism is imperfect and inexplicable acts of altruism

WILLIAM BRAMHALL

occur. It may be in the interest of males to control uteruses as theory predicts, but females of many species, including allegedly monogamous ones, cheat. Thus males, with the best will in the world, often get flummoxed out of reproductive success. But such is evolution—females have their interests too, and pursue them very nicely, thank you. This is not a failure of neo-Darwinian theory, but a legitimate adjustment of it.

That the theory is obnoxious I freely concede. That it often leads to oversimplification there can be

no doubt. But whatever we may wish, the former cannot make it wrong, and the latter is in the nature of theory. Proponents push it as far as they can, and let others sweep up the failures after them—or, in the worst case, sweep up the broken pieces of their theory. They are willing to stumble, fall, look silly, get up and brush themselves off, and push some more. So much the better for the rest of us, who may eventually benefit in gained understanding without having had to risk ridicule.

The theory's failures have been local; it has proven uninformative in many instances, and specific hypotheses arising from it have often failed empirical tests. As an overarching viewpoint, though, it successfully organizes much of the behavior and social organization of animals—including, to some extent, us. For example, kin selection predicts that if males take over a group in which females are caring for infants, they might benefit from doing away with the infants and reimpregnating the females. This has been seen in lions, langur monkeys, and many other species. In other circumstances, however, males transferring into a group might not be able to take over, but instead have to sue for acceptance by the powers that be. In such instances these relatively weak newcomers might have to befriend females by being gentle and caring toward their infants, even though the infants have been sired by other males. This has been seen in baboons, among other species.

Needless to say, the theory sometimes seems eerily able to handle any facts on the ground, a tendency Lewontin and Gould have aptly labeled "Panglossian adaptationism," after Voltaire's character who found everything for the best in this best of all possible worlds. Neo-Darwinian theorists would like nothing better, however, than to find ways to predict which species will turn out like lions and which like baboons, rather than offering post hoc explanations. In fact, they are working like beavers on this and similar problems, which is what theories are supposed to make scientists do. That is called heuristic value. This theory has heuristic value in abundance.

Still, it is difficult to see what theory other than this one would predict so costly and nasty a natural phenomenon as competitive infanticide. That is why when it became impossible to deny that it occurs in many species, opponents of the theory insisted that it was just a breakdown in social relations—a form of social pathology under stress. This didn't wash for two reasons. First, no one showed that the likelihood of infanticide was related to the amount of ambient stress. Second, and more important, stress is ubiquitous in nature. Stress is what life is about. Evolution thrives on it, and to treat its consequence as a special instance—a pathology—just won't do. Call it pathology if you like, it is nonetheless predictable, and neo-Darwinian theory predicts it.

A more legitimate objection is that many things predicted by sociobiology are predicted by other theories too. For instance, sociobiologists suggest that incest should have been selected against in evolution because it brings hidden genetic defects to the surface. But such other theorists as Westermarck, Freud, and Skinner give us reasons to expect incest avoidance. Even if sociobiology makes more sense in such cases, it doesn't exactly produce surprises.

Consider two instances in which, I believe, it does.

Over the past 15 years systematic research on child abuse and pedicide by Martin Daly and Margo Wilson—research specifically motivated by neo-Darwinian theory—has shown that a child is between 10 and 100 times more likely to be assaulted or killed if he or she lives in a household that includes an unrelated male. Careful studies show that controlling the things we think of first to explain such a finding—socioeconomic status, ethnicity, religion, educational level, and so on—fails to abolish this very large effect. Nor does the finding respect national borders; it appears reliably in four or five countries. Although several of these countries—Canada, the U.S., and Britain—are culturally very similar, comparable effects are seen among the Yanomamo Indians of Venezuela. Because it persists when cultural and sociological variables are controlled, it is difficult to interpret these findings without reference to neo-Darwinian theory. This, we should emphasize, does not explain the mechanism in individual households. But the theory directed researchers' attention to a particular variable and led to a new discovery in a field that, one might have thought, would have known about this phenomenon for decades.

Second, David Buss and others have conducted studies of sex differences in what they call mating strategies. In dozens of different countries—37 and counting, the last time I checked, including Nigeria and Malaysia—men and women consistently respond differently to questionnaires on what they look for in their romantic and sexual partners. All 37 samples are of literate people in their twenties or younger, but these effects are stronger, not weaker, in nonliterate cultures, such as the Ache of Paraguay and the Kipsigis of Kenya, where modernization has had less

effect on gender roles. Men value physical appearance more than women do, and women weigh status and income more than men do. Men's ideal mates are a few years younger than they are on average, and women's a few years older. Eleanor Maccoby, a Stanford psychologist, has summarized a lifetime of research on gender in a recent book, *The Two Sexes: Growing Up Apart, Coming Together*, published by Harvard University Press. While she details a complex interaction between initial biologically based differences and the effects of voluntary sex segregation in play (among other social and cultural influences), she concludes that some psychological sex differences are extremely difficult to change. This includes the greater tendency of males to resort to physical measures in conflict, which also shows remarkable cross-cultural consistency.

How should liberals react to such information, assuming that it is scientifically reliable? Surely not by the ostrich method, hoping it will go away. You need to ask yourself: How committed am I to liberal philosophy and policy? Is my viewpoint contingent on certain scientific discoveries, past or future, about how biologically based human behavior and human differences are? Or am I committed to policies based on human decency regardless of how large a role biology may play? Do we have to justify equal opportunity with the scientifically untenable claim that it will cause everyone to end up in the same place? Or is it just a matter of fair play, regardless of native ability? In order to share power between men and women, do we first have to prove that the sexes are psychologically equivalent? Or can we resolve, along with "difference feminists" going back to the nineteenth century, that both genders must be represented in any organization not just in spite of, but also because of their differences?

Jefferson wrote, "In questions of power, let no more be said of confidence in man, but bind him down from mischief, by the chains of the Constitution."

FUNDAMENTAL OR FUNDAMENTALIST?

There is something perversely comforting about the Daly and Wilson finding. Child abuse in the presence of unrelated males is an equal-opportunity scourge, crossing boundaries of class, race, and religion. Sadly, biological mothers as well as stepfathers are guilty of the abuse; it is the presence of the unrelated male in the household that seems to count, whether or not he commits the abuse. Theory notwithstanding, this is a disturbing and puzzling phenomenon, but it is a human one. Or more precisely, it is a human extension of an animal phenomenon, and that perhaps disturbs us most of all.

In recent years, Gould and others have taken to criticizing sociobiology for being overzealous in its application of Darwinian principles. For example, in the *New York Review* of June 12, 1997, Gould pigeonholes his opponents as "Darwinian fundamentalists" or "ultra-Darwinians" who cannot respect any process in evolution other than natural selection. He correctly points out that natural selection is not the be-all and end-all of evolution. Asteroid impacts have drastically changed the earth's climate, flora, and fauna; after one such event the dinosaurs and many of their contemporaries became extinct. Also, many DNA mutations are neutral—they have no adaptive or functional consequence, and so they happen randomly. Finally, there are inertial properties of organisms called developmental constraints, which slow down evolution or shunt it along a finite number of favored paths. These processes are not up for argument. Everyone, including alleged ultra-Darwinians, agrees with Gould that they are important.

The problem is only with Gould's straw man: a Darwinian thinker so ignorant and rigid as to deny the reality of the aforementioned, universally accepted facts. Do "ultra-Darwinians" have difficulty with mass extinction by asteroid impact? Hardly. In fact, such extinctions wipe the slate of life on earth more or less clean, giving natural selection much freer reign for the next few million years as the earth fills with life again. Do "Darwinian fundamentalists" ignore neutral mutations? Of course not, although the "selfish gene" theory itself provides an interesting hypothesis about how DNA can change within a genome without having any effect on the organism, or even having a detrimental effect, by duplicating itself and "hitchhiking" along.

But like asteroid impacts, neutral mutations are random processes that help form the background

noise of evolution. It's not that those processes are unimportant, nor even that it's uninteresting to find out how they happen. It's just that in evolutionary biology, as in any other science, the aim is to detect the signal amidst the noise. The signal in this case is natural selection. The noise may be louder and more general, but the signal is more interesting. Focusing on the signal instead of the noise is scarcely proof of fundamentalism.

In a similar vein, in his recent criticism Lewontin has exaggerated sociobiologists' inflexibility on the question of group selection. In a review last October of a book about unselfish behavior by Elliott Sober and David Sloan Wilson in the *New York Review*, Lewontin praises the authors' work as "subversive" and "radical" in the sense of requiring that current orthodoxy be overturned. Lewontin is right to think that a great deal is at stake here, especially for the human sciences. If group selection is powerful and important, then so is group functionalism. And if group functionalism is valid, then the standard social science model—the organic model—is much less vulnerable to Darwinian revision than many of us think. If groups have been selected as functional entities despite individual competition within them, then altruism and cooperation do not need neo-Darwinian explanations.

But, actually, theoretical hostility to group selection has waned considerably among evolutionists, and it has been given a legitimate role even by many like E. O. Wilson, George C. Williams, and John Maynard Smith whom Gould would call "ultras." So when Lewontin characterizes group selection as "anathema" to "nearly all evolutionary biologists," he is substantially behind the curve. Sober and D. S. Wilson are far more open-minded about levels of selection than Gould and Lewontin are; they offer their theory not as a replacement for sociobiology but as an addition. Indeed, the same intellectual developments that Sober and D. S. Wilson call "great insights" and "advances" Gould and Lewontin have viewed as products of reactionary cultural trends and threats to liberal political philosophy—not to mention being silly and wrong.

Proponents of group theory blur the distinction between kin and group selection, a semantic move that does nothing to advance understanding. The theory has a place, especially in simple asexual organisms. But group selection theorists also aim to change our minds about human altruism and cooperation. They cite ethnographic materials that are unsystematic and biased, taking at face value the claims of functionalist anthropologists of the early twentieth century regarding how cooperative traditional peoples are. Recent studies of the Yanomamo, Ache, Hadza, Kipsigis, and other traditional peoples have tested hypotheses arising from individual and kin selection theory, and these hypotheses hold up as well or better in nonindustrial than in capitalist societies.

In fact, anti-Darwinians, stressing the dangerous social consequences of individual selection, ironically miss the social dangers of group selection theory. Group selection can have been important in human evolution only if groups of our ancestors were quite isolated for long periods. This would suggest that human groups evolved rather separately, a potential comfort to racists. But of course, it is not on this basis that we evaluate the theory, any more than we can evaluate individual selection on the basis of whether or not it comforts capitalists. Either theory stands or falls on the merits.

In the human case, there is no evidence that races, tribes, or other ethnic groups were ever isolated for thousands of generations during our evolution. On the contrary, genetic analysis tells a tale of constant migration and frequent mixing. Yes, there were group conquests and replacements. But these too often resulted in genetic melding, as men and especially women were integrated as servants or slaves. More important, there is endless evidence of conflict within groups, and there is the constant opportunity for defection.

This is key. Defection is the individual's ultimate negative comment on the group, and in human affairs, whether primitive or modern, it is resorted to early and often. Defection more than anything exposes the soft underbelly of the conventional organic model of social organizations. Cells and tissues cannot secede from an organism and otherwise continue their evolutionary process, but individuals can and do secede from groups. They also, through deception, defect internally, enhancing their reproductive success at fellow group members' expense. But it is the act of transfer or group fission that makes group selection implausible.

MARX VS. DARWIN?

With a completed *Das Kapital* in hand, Karl Marx wrote to Charles Darwin, requesting permission to dedicate it to the older, world-famous biologist. Darwin's demurral showed that he was a bourgeois, conservative sort of scientific revolutionary who had

troubles enough of his own; but it also showed that there is evolution and then there is evolution. Marx's evolution was that of successive waves of socioeconomic adaptation, each predictably replacing the last through a process of revolutionary transformation.

Marx, of course, was a kind of group selectionist; classes were relentlessly pitted in dialectical conflict. This has proved wrong, partly because of defection (opportunity?) and partly because of the enlightened self-interest of ruling classes, choosing conciliation over chaos. The utopian part of Marx—his version of the Hegelian end of history—was even less compatible with real evolutionary theory, since like all utopian visions it was perfectly cooperative and free of selfishness. In art and poetry the lion may lie down with the lamb, but in evolution the lamb gets eaten. Likewise, within a species, bullies and victims do not rest easily side by side.

For some critics, those last remarks alone make me an apologist for exploitation. This criticism naively confuses "ought" with "is." All major religions and many secular philosophies have declared bad things to be natural and promptly declared a humane war against them. In Judeo-Christian, Platonic, and Confucian thought, among other traditions, we are first endowed with selfish, greedy, and other wicked impulses and then must freely exercise our force of will against them. Far from justifying the impulses by calling them natural, the label does the opposite, emphasizing the human, cultural need to control them.

Even Marxist thought has parallels, in which natural greed, conflict, and oppression lead—through a peculiarly human rise in consciousness—to a willed, chosen, improved course of history and destiny. Indeed, in any body of thought that makes sense, human choices are superimposed on and attempt to control natural tendencies. Why sociobiology's discoveries or claims about what is natural should determine what ought to and will be done is a mystery that the theory's critics have not explained. Sociobiology is trying to be a science, not a philosophy; if it succeeds, any philosophy—including political philosophy—will have to take its findings into account. But what *is* is merely a starting point for determining what *could* or, certainly, what *should* be.

A Social Machine for a Darwinian Creature

As Marx's admiration for Darwin shows, the implications of evolution are not, and never were, inherently conservative. They are, however, inherently materialist and fraught with conflict—something conservatives and revolutionaries are comfortable with but some liberals are not.

The revolutionaries of the nascent American republic certainly were, although not because of evolution. In *The Lost World of Thomas Jefferson*, Daniel Boorstin shows that Jefferson's circle—including psychiatrist-physician Benjamin Rush and other Philadelphia intellectuals—had a strong, detailed concept of human nature. They were scientific materialists. They believed that all human beings were descended from a single pair, giving unifying operational principles to the mind. Under Rush's influence, they maintained a fascination with a fledgling brain science. What Rush called "the anatomy of the mind" was an attempt to put human behavior and psychology on a continuum with the physical sciences and, even more so, with the lives of animals, thus undermining human arrogance. Or as one of the group, Tom Paine, put it, "all the great laws of society are laws of nature," and order in human affairs stems from "the natural constitution of man."

A 1789 monograph from the laboratory of Madison et al. (the one that begins "We the people . . .") described what might be viewed as an epochal social science discovery. It presented the plan for an intricate, elegant device, a sociological invention for keeping human nature in check, while allowing the conflict that seethes in the human breast to leak out through various safety valves. In fact, you could say that they harnessed conflict itself to make the machine run. For unlike most machines, this device was to be built out of people; therefore, its designers had to have some notion of what these human building units were.

Despite agreeing with Paine about the tendency to order, Jefferson—an affiliate of the lab, but absent in Paris when the monograph appeared—had a dark view. "In questions of power," he would write in 1798, "let no more be said of confidence in man, but bind him down from mischief, by the chains of the Constitution." Paine similarly saw the purpose of constitutions as "to restrain and regulate the wild impulse of power." It was these men's great gift to be able to take a Hobbesian view of human life without applying a Hobbesian solution.

Their "natural" view even encompassed individual differences in debate. Jefferson wrote that "the terms of whig and tory belong to natural as well as civil history. They denote the temper and constitution

of mind of different individuals." For Rush, there was "the same variety in the texture of minds, that there is in the bodies of men." But if differences of opinion were really differences in temper, and these in turn inherent brain differences, what could be more hopeless than to seek universal agreement? Instead, the laws would take for granted the permanence of those differences, and create a government that would harness the unremitting energy of conflict.

But we don't really need Boorstin's interpretation; we can read the monograph and infer the theory from it. Human nature is eminently corruptible. People seek power and abuse it, turning it to selfish ends, regardless of how collective and representative its roots. Nepotism, greed, self-aggrandizement, intractable conflict, and suppression of dissent naturally and relentlessly threaten human institutions. A democratic republic is inherently improbable, and will tend to collapse into hereditary dictatorship, oligarchy, or chaos, regardless of how good the intentions of those who began it. As "Publius,"—either Madison or Hamilton—asked in Federalist 51, "But what is government itself, but the greatest of all reflections on human nature? If men were angels, no government would be needed."

What to do? Well—they seem to have thought—let us assume the worst, and under that assumption, invent a device to bully human nature into decency, a "policy of supplying, by opposite and rival interests"—Federalist 51 again—"the defect of better motives." They analyzed human nature, and built a sort of Rube Goldberg machine—almost too complicated, yet so tightly and intricately balanced that it could have been the cotton gin or a mill wheel grinding corn kernels. At one end you could put in a collection of greedy, power-mad people locked in angry conflict, and at the other end something resembling order, peace, and fairness would duly be chucked out.

Creaky, noisy, seemingly ready to crumple or burst at any moment, the machine has more or less worked for a couple of centuries. Brief in evolutionary terms, but a beginning. Inexact working replicas are now cranking away in various places on the planet, threatening to make order out of human nature elsewhere. For those who think our nature is inherently good, unselfish, and cooperative, the result is a poor substitute for a functional, organically coherent, and completely fair society.

But for those of us who see human nature as the unpleasant product of too many eons of individual selection, the machine makes a decent stew out of some pretty iffy meat. Or in Isaiah Berlin's metaphor, it makes from the crooked timber of humanity an acceptable shack—shaky and of course nothing straight, but with occasional repairs, livable. Some people are shut out of it, but that probably means we should add another wing, not that we should tear the thing down and start over. Given the grain of the lumber, we could end up with something much worse.

This perhaps is the enduring implication of Darwin's theory for liberal political philosophy: assume the worst and you can still get something workable, based on Thomas Jefferson and not Thomas Hobbes. Of course, I may merely be spinning pseudoscientific tales to justify the status quo. But at present I fail to see the evidence for a better way to look at evolution.

Personally, I favor political economies like those of northern Europe over the one we have now in the United States, and I have voted that preference to whatever extent possible for more than three decades. Around halfway through that period, I concluded that the neo-Darwinians had a very useful way of looking at evolution, and I accepted it. Why didn't it change my vote?

First of all, because my political views are based as much on "ought" as on "is." I support liberal economic programs because I want to live in a decent community. My definition of "decent" doesn't depend on one or another theory of evolution. But in addition, because I do see human nature as an obstacle to decency, I support programs that buffer us against the loss of it. Newt Gingrich and Milton Friedman must have a far more sanguine view of human nature than I do, or they would surely not be heartless enough to want to give it the free rein of an unalloyed market economy.

In part, it is because I take a dim view of human nature as an evolutionary product that I reject their view. Virtually everyone in the world has decided that economies don't work without more or less free markets at their center. What is up for further discussion is only how much we will care about those who lose out in open competition—including the sick, the old, and the very young. Human nature was not designed by evolution to take care of the needs of these people automatically. Therefore only programs and supports deliberately designed by a collective, humane, political will—a will that also restrains the worst excesses of markets—can, after wide debate, create a decent community and set some limit on selfishness. ■