

REVIEW

Against Nature—On Robert Wright's *The Moral Animal*

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The Moral Animal: Evolutionary Psychology and Everyday Life. Robert Wright. Pantheon 1994. Pp x, 467.

We live in cities and suburbs and watch TV and drink beer, all the while being pushed and pulled by feelings designed to propagate our genes in a small hunter-gatherer population.

Robert Wright¹

If sociobiology is the answer, what is the question? For one thing, economics. "Modern neoclassical economics has forsworn any attempt to study the source and content of preferences, that is, the goals that motivate men's actions. It has regarded itself as the logic of choice under conditions of 'given tastes.'"² Unlike

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¹ *The Moral Animal: Evolutionary Psychology and Everyday Life* 191 (Pantheon 1994).

² Jack Hirshleifer, *Economics from a Biological Viewpoint*, 20 J L & Econ 1, 17 (1977). See also Robert C. Ellickson, *Bringing Culture and Human Frailty to Rational Actors: A Critique of Classical Law and Economics*, 65 Chi Kent L Rev 23, 44 (1989) ("In part because the origin of preferences is an inherently murky topic, mainstream economic theory takes tastes as exogenous givens."); Jeffrey L. Harrison, *Egoism, Altruism, and*

economics, sociobiology is not indifferent to the objects of human desire, but seeks to identify them by examining their biological source and function.

In pursuing this project, the branch of sociobiology known as human evolutionary psychology is concerned more with the social than with the material world. Its focus is not on "tastes for ordinary commodities," but on "preferences taking the form of attitudes toward other humans."³ Evolutionary theory postulates that the process of biological evolution produced a human organism with an identifiable repertoire of desires, leanings, and responses to other people's actions. These psychological patterns influence all human behavior under the vast range of conditions normally encountered by the human animal. The evolved psychological elements are the indispensable building blocks for social understandings and expectations about moral worth, obligation, right, fairness, and duty, which repeatedly appear in diverse societies. Those expectations are the foundation for the complex social norms that mark all human cultures.

Man's universal propensity to set and follow norms—in particular man's tendency to create and feel bound by codes of morality—is the central concern of Robert Wright in his book, *The Moral Animal*. An amalgam of scientific reportage, philosophical speculation, and illustrative historical vignettes from the life and times of Charles Darwin, *The Moral Animal* is primarily a work of journalism and popular science. The author presents a readable and accurate synthesis of a very technical subject—nineteenth- and twentieth-century Darwinian science. One measure of his success is that most of the incoherences in the book can be traced to weaknesses in the body of work he seeks to present, and not in Wright's exposition. Wright also offers a provocative discussion of the practical and theoretical implications of sociobiological theory which, because of its complexity and subtlety, is prone to misapplication, error, and misuse at the hands of inept thinkers and crude popularizers. Although many of his conclusions are astute, Wright fails to develop fully some of the

Market Illusions: The Limits of Law and Economics, 33 UCLA L Rev 1309, 1310-14, 1318-25 (1986) (discussing the difficulty of giving content to the idea of "self-interested behavior" without a substantive theory of human motivation); Ulrich Witt, *Economics, Sociobiology, and Behavioral Psychology on Preferences*, 12 J Econ Psych 557, 562 (1991) (explaining that "economics has failed to develop a body of general, empirically meaningful, hypotheses about what people have preferences for as well as about how they perceive actions, outcomes, and constraints").

³ Hirshleifer, 20 J L & Econ at 18 (cited in note 2).

most important implications of the vision he presents. These implications are the subject of Part III of this Review.

Wright accepts as fundamentally true the proposition that biological evolution has decisively shaped the human mind. He makes the crucial distinction between sociobiology's view of evolved *psychology* (the closely programmed cognitive and emotional responses triggered by experience) and *behavior* (the outward manifestation of a range of sometimes conflicting impulses and thoughts, which is highly influenced by custom and culture). With that distinction in mind, Wright tries to show how sociobiology is a useful heuristic for assessing whether certain customs and institutions, by taking a realistic account of psychological "nature," can be expected to yield both material and nonmaterial benefits and, ultimately, to promote human happiness. If our aims are health, wealth, peace, prosperity, security, and well cared for and well loved children, does sociobiology have anything to say about how we can achieve those ends?

Wright clearly believes that it does, as evidenced by his provocative comments on the most vexing social issues of the day.⁴ All his insights can be traced to the defining idea at the heart of this book: that the process of evolution has equipped man to create morality and to abide by moral precepts (pp 342-44). Morality is one part of a larger phenomenon—man's ability to order his social life through the generation of complex cultures. Wright's book is devoted to providing a biological account of how and why man habitually adopts cultural conventions that frustrate—indeed are designed to frustrate—important "natural" preferences and wishes. His explanation hinges on showing that

⁴ Some of Wright's ideas, which are outlined in *The Moral Animal*, have been more fully developed in recent articles in *The New Republic* and *The New Yorker*. See Robert Wright, *The Biology of Violence*, *New Yorker* 68 (Mar 13, 1995); Robert Wright, *Feminists, Meet Mr. Darwin*, *New Republic* 34 (Nov 28, 1994). Wright tries to make a case for the benefits of monogamous marriage and the nuclear family (pp 98-106), argues for the wisdom of traditional societies and forms of social control (pp 13, 358), never seriously doubts that there are ingrained, nontrivial, far reaching differences in the psychology of the average male and female (pp 30-31, 35-39), and suggests that state cash welfare programs are bound to weaken marriage as a viable institution among the poor (p 135).

He also argues that improving the economic prospects and social status of poor men can be expected to increase the rate of marriage and decrease illegitimacy (p 105), that improving job prospects for inner city youth would ease underclass violence, Wright, *Biology of Violence*, *New Yorker* at 77, that there are good reasons for the law of sexual harassment to make use of a "reasonable woman" standard, Wright, *Feminists*, *New Republic* at 40, that people are programmed to engage in persistent and largely unconscious bias against those outside their ethnic or status group (pp 281-85), and that radical feminist writers provide a fairly accurate vision of the relations between the sexes, Wright, *Feminists*, *New Republic* at 42.

evolution favors the development of these conventions because individuals are better off in the long run when forced collectively to rein in selfish desires for immediate gratification.

Wright's exposition of the principles of evolutionary psychology helps to explain the existence of cultural traditions that run so systematically against the tide of powerful individual desires. He shows us why we need not pretend there is no identifiable human nature—and insist that man is “socially constructed”—to believe that man can be induced to relinquish his most destructive habits. Wright's discussion illustrates why it is a mistake to think of advanced civilizations, which are devoted to keeping rapacious behaviors at bay, as artificial constructs of the human mind that are altogether opposed to nature; rather, they are the products of quite “natural” psychological forces. In short, this book creates a picture of man as a creature designed by evolution to be in perpetual conflict with himself. Accepting this account of human psychology requires us to acknowledge that accomplishing the most cherished goals of high civilization requires tradeoffs, sacrifice, coercion, painful repression, and all the unhappiness that comes with forgoing the gratification of some of man's deepest desires.⁵

Part I of this Review provides a brief overview of the theory of biological evolution and its application to human psychology and behavior, drawing both upon Wright's discussion and the body of work upon which he relies. It summarizes Wright's account of how evolution produced man as a “moral animal”—a creature capable of constructing and responding to moral imperatives—by focusing on the two questions that arise in any attempt to explain behavior sociobiologically: why did evolution select for

⁵ Thus, it may be argued that an evolutionary account of human psychology is in harmony with what has been termed the “pessimistic” view of human nature—a view that “range[s] deep and wide in our national experience and in Western thought.” Carl E. Schneider, *State Interest Analysis in Fourteenth Amendment “Privacy” Law: An Essay on the Constitutionalization of Social Issues*, 51 L & Contemp Probs 79, 106 (Winter 1988). According to this view, “man is easily led to harm himself and other people by his own self-interestedness,” including, most notably, his intense desire for sexual gratification. Id at 103. The pessimistic view accepts the necessity of channeling man's “distracting [and] destructive propensities” by placing faith in “socializing techniques” designed to control the potentially exploitative aspects of human nature, especially in the arenas of family and sexual life. Id at 103, 106. See also Thomas C. Grey, *Eros, Civilization, and the Burger Court*, 43 L & Contemp Probs 83, 92 (Summer 1980) (“[E]very thinker of the great central tradition of the last century's social thought has seen repressed sexuality and the authoritarian family structure as close to the core of our civilization. Conservative theorists have defended repression as necessary; revolutionaries have urged that society would have to be overthrown to free us from its tyranny.”).

the psychological predicates for moral behavior (that is, what benefits did the capacity for morality confer), and how did evolution accomplish that result (that is, how did biological forces endow individual organisms with the psychological elements that make morality possible)? Part II of the Review discusses the main critiques of sociobiology as applied to human behavior. It concludes that, although an outright denial of the influence of genetic evolution on human psychology is incoherent, it is a mistake to view that influence as decisively foreclosing the possibility of quite significant variety in social arrangements or patterns of behavior. Part III discusses the implications of sociobiological insights for social policy generally and for certain contemporary problems in particular. It takes as its starting point morality's unique role in coordinating the collective suppression of "natural," short-term, predatory strategies in favor of fruitful cooperative alliances. It concludes that social policy will have the unintended consequence of undermining social cohesion and cooperation unless it takes into account man's natural sensitivity to normative imperatives and group sanctions, and the unavoidable fragility of moral systems that regulate behavior for the greater good.

I. EVER SINCE DARWIN: THE THEORY OF HUMAN EVOLUTIONARY PSYCHOLOGY

The world becomes full of organisms that have what it takes to become ancestors. That, in a sentence, is Darwinism.

Richard Dawkins⁶

A. The Theory of Natural Selection

The fundamental principle of evolutionary psychology is that the forces of biological evolution are responsible for each person being born with a complex psychological program—a patterned set of leanings and emotional tendencies that are encoded in the genes. The psychological program does not make human personality impervious to experience or environment—indeed much of the program is devoted to channeling and shaping complex responses to a vast range of circumstances. Nevertheless, the basic

⁶ *River Out of Eden 2* (BasicBooks 1995).

patterns of human psychological response—fears, desires, emotions, attractions, and aversions—are fairly predictable and form the building blocks for all complex social interactions.

How did this behavioral repertoire arise? The answer begins with Charles Darwin's theory of natural selection. Wright quotes Darwin's summation of the theory—"multiply, vary, let the strongest live and the weakest die" (p 24). The theory began as an attempt to explain organic variation—the observed diversity of animal species. Darwin observed that variation arises spontaneously among the progeny of existing organisms—that offspring are not quite like their parents. He postulated that sexual reproduction first produces variation, and that environmental conditions then visit hardships on the range of organisms that are generated. The offspring that are best able to survive and even thrive in the environment in which they find themselves, live to breed and reproduce once again. The less fit dwindle in numbers and even die out altogether, relegating their traits—and their genes—to extinction. The process by which the successful survive and multiply at the expense of the less successful, spreading the success-producing genes throughout the population of succeeding generations, is known as "natural selection." The traits that make for reproductive success have come to be known as "fitness-enhancing" traits (p 56).

B. Natural Selection and Human Behavior: The Theory of Inclusive Fitness

In the mid-1960s, a group of biologists boldly began boldly to extend and refine the Darwinian theory of natural selection by looking beyond anatomy to animal behavior.⁷ They set about speculating which kinds of behavior would yield expected returns

⁷ Wright does not attempt to explain why evolutionary science flowered in mid-century after decades of relative quiescence. It was probably no accident, however, that the surge in interest in applications of Darwinian concepts to complex animal—and human—behaviors coincided with the unravelling of the fundamental mechanisms of genetic transmission. Dramatic advances in molecular biology and biochemistry had revealed the structure beneath the classical geneticists' hypothetical concept of the gene as the carrier of inherited material. These discoveries threw into sharp relief the quintessentially biological nature of the human organism and made ever more apparent the common molecular basis of anatomy, physiology, and behavior in animals and man. Any notion of "human exceptionalism"—a radical discontinuity in the basic biological mechanisms at work in man and beast—became impossible to maintain at the molecular level. The knowledge that all elements of the biomass had certain fundamental components in common made it equally difficult to believe that the mechanisms shaping human behavior were radically different from those at work in other organisms.

in reproductive success and thus be preserved by natural selection (pp 40-42, 79-83, 156-58). These theorists focused primarily on the behavior surrounding the act of reproduction itself: courtship, mating, and relations among family members and kin. Expanding on Edward Wilson's suggestion, in his groundbreaking *Sociobiology*, that evolutionary theory could be used to explain human society,⁸ these scientists and their followers then attempted to apply to human behavior some of their insights into animals. Wright draws primarily on this subtle and complex body of work in discussing the biological logic of man's moral and social psychology.

Unlike Darwin, latter-day evolutionists could apply their knowledge of the gene as the basic unit of inheritance to describe a refined concept known as "inclusive fitness," of which Wright provides an exceptionally clear account (pp 163-65, 174-76). The theory, which requires a shift in focus from the individual to the gene, rests on two insights: first, it is the gene—the molecules containing the genetic material—that determines the organism's behavior; second, it is also the gene that replicates and preserves the information that determines the behavior—the organism is simply a vehicle for carrying the gene. Because the unit of preservation is not the individual, but rather the genetic source of the successful behavioral program, genes that are best able to enhance the survival and reproductive success of the "vehicles" that carry them are the ones that thrive. As Richard Dawkins puts it, genes are "selfish"—they are exclusively concerned with their own welfare.⁹ Evolution thus tends to produce genes coded for behavior that maximizes the chances the genes will replicate and be preserved, wherever they are found.¹⁰

Survival is determined in part by behavior, and in higher organisms, behavior is driven by an intricate psychology. It follows that complex organisms will come to acquire psychological traits that, under prevailing environmental conditions, will tend to produce behaviors that enhance the probability of the survival and propagation of included genes—that is, genes that are carried by the behaving organism. As one commentator has put it, "[t]he biological approach to preferences, to what economists call

⁸ Edward O. Wilson, *Sociobiology* 575 (Belknap 1975).

⁹ Richard Dawkins, *The Selfish Gene* 7-12 (Oxford 1976).

¹⁰ Each of our children, our parents, and our full siblings (on average) carry half our genes. Our cousins, uncles, and aunts carry one-quarter. The biologist J.B.S. Haldane was therefore following evolutionary logic in remarking that he would never give his life for a brother—rather, he would only do so for two brothers or eight cousins (p 165).

the utility function, postulates that all [] motives or drives or tastes represent proximate aspects of a single underlying goal—fitness.”¹¹ Since the goal is *inclusive* fitness—the fitness of *all* organisms carrying the relevant genes—the psychological programs will be concerned not just with the reproductive fate of any particular organism carrying out the program, but also with the well-being of other biologically related organisms.¹²

As Wright takes pains to explain, man’s evolved psychology can be expected to reflect the forces that were at work during a period of rapid evolutionary change. Specifically, the traits unique to man will be those selected during man’s evolution and emergence from his most closely related primate ancestor—a process that took place in the remote setting known as “the ancestral environment” (pp 37-39). Man’s mind and personality evolved hundreds of thousands of years ago in response to conditions that are quite different from those that he has created for himself in the modern world.¹³ It follows that a reliable picture of the behaviors that were favored and preserved in man depends on a reasonably accurate picture of what life was like in the ancestral environment. Anthropology and archeology supply the clues: man lived a simple and harsh existence in small hunter-gatherer societies, growing up in small villages near close kin “where everyone knew everyone else and strangers didn’t show up very often” (p 38). Behavior had immediate and often momentous effects on the quality of life or on the very prospects for life itself. Reproductive strategies and choices mattered. The health and material prospects of prospective sexual partners were particularly significant, determining in large part who managed to produce viable offspring and pass their genes on to the next generation.

C. Sex Selection and Sexual Dimorphism

Wright devotes a good deal of attention to one of the most controversial implications of the theory of inclusive fitness: that evolutionary forces have produced biologically programmed differences in the psychology of male and female. Sexual difference

¹¹ Hirshleifer, 20 J L & Econ at 19 (cited in note 2).

¹² See note 10 and accompanying text.

¹³ Steve Jones, *The Language of Genes: Solving the Mysteries of Our Genetic Past, Present and Future* 103-05 (Doubleday 1993); Derek Freeman, *Sociobiology: The “Antidiscipline” of Anthropology*, in Ashley Montagu, ed, *Sociobiology Examined* 198, 206-07 (Oxford 1980).

begins—but does not end—with the obvious specialization in reproductive capacity: anatomical sexual dimorphism (pp 33-151). Evolutionary theory postulates that anatomical sexual dimorphism exerts selective pressures that produce wide ranging average differences between the sexes in emotion, attitude, interest, and behavior. The anatomical fact most crucial to this process is that men produce sperm whereas women produce eggs and, eventually, babies. From this simple disparity of function flows a momentous consequence: a woman in a lifetime can produce at most twenty children. Moreover, the investment a woman was required to make in the ancestral environment to insure each baby's survival—including nine months of pregnancy, intensive and prolonged breast feeding, and the day-to-day care of the very young child—virtually ruled out significant engagement in any other demanding activity for most of her adult life. In contrast, an ancestral man could produce hundreds or even thousands of offspring in a lifetime. A brief sexual encounter might be all that was required to get his genes into the next generation. Although a man might enhance the prospects for potential offspring by making what is known as a “male parental investment”—that is, providing aid and protection to children—the father's long-term investment was less critical than the mother's nurturance, which invariably spelled the difference between life and death.

Wright does a good job of showing how the twin exigencies of the scarcity of female eggs and the plenitude of male sperm put far greater pressure on females than on males to make each reproductive event count (pp 33-92). Because behavior influences survival, and psychology influences behavior, evolutionary theory predicts that the reproductive pressure exerted by these structural disparities will be felt in the personalities of the sexes. Thus, for example, evolution will select women who cherish each reproductive opportunity, and who exert a high level of care in the selection of sexual partners and the nurturing of offspring, whereas it will favor men who are somewhat less interested in providing intensive nurturing than in fathering more children.

A spinning out of this logic leads to the theory of “sexual selection”—the predominance of behaviors in each sex that represent “whatever each sex must do to get what it wants from the other” (pp 63-64). For example, a woman will maximize her reproductive success by choosing men in the best position, and more willing, to help her care for her children. Since women favor men with resources and status (the better to nurture her offspring), men correspondingly develop a taste for wealth and

status, and the capacity to compete with other men to maintain status. Since men favor women whose offspring they can identify as their own, they will tend to favor female sexual fidelity and reserve, and females will come to display those traits. In sum, evolution selects for men who are competitive, sexually jealous, and randy (that is, ready to jump at any sexual opportunity). It selects for women who are relatively coy (that is, picky about their mates' status, prowess, and devotion), nurturing (willing to care for their babies), and not particularly competitive (since fertile women get impregnated as a matter of course, and the exigencies of motherhood in the ancestral environment didn't leave much time for direct competition for resources) (pp 33-36). The genes for these traits will tend to multiply in the population both because these traits make for attractiveness to the opposite sex and because they directly foster reproductive success. These complex patterns are driven by the simple fact that unsuccessful strategies—whether the male failure to monopolize resources and females, or the female failure to harness the resources of a successful male for her children—spelled reproductive doom in the ancestral environment.

D. Kin Altruism and Reciprocal Altruism

Although sociobiology takes sex selection as its starting point, theorists insist that its implications are not limited to the spheres of mating and parenthood. As Wright explains, evolutionary mechanisms influence a vast array of human dispositions with a less obvious connection to survival. Sociobiological theory postulates that human beings will tend to manifest a behavior known as "kin selection" (pp 155-69). Because successful genes will tend to favor themselves wherever they are found, and genes are found in close relatives of the organisms carrying them, evolution favors nepotistic behaviors, including outright altruism toward genetic relatives at the expense of the actor's survival or reproductive success.¹⁴

Wright points out that Darwin himself was uncomfortably aware that kin altruism does not even begin to explain all varieties of human self-sacrifice. In particular, Darwin's theory lacked a ready explanation for the evolutionary persistence of generosity toward nonkin (pp 186-90). The biologists George Williams and Robert Trivers developed the theory of reciprocal altruism to

¹⁴ See Part I.B.

explain the apparent paradox of nonkin altruism.¹⁵ The theory is based on the observation that cooperative schemes can be non-zero-sum games generating surplus benefits for participating individuals.¹⁶ Trivers and Williams speculated that because the lone altruist among ruthlessly selfish competitors was not likely to thrive,¹⁷ the adaptive superiority of the strategy of mutual cooperation over mutual selfishness would result in selection in favor of the tendency to cooperate, but only in circumstances where cooperation would likely be reciprocated. Once a small group of cooperators evolved, the benefits of being a cooperator in a community of cooperators would favor the further spread of the cooperative trait, so that the chance of encountering a cooperator—and thus of reaping the benefits of mutual cooperation—would increase in turn.¹⁸

Wright describes Williams's and Trivers's transformative effect on sociobiological thinking (pp 202-06). Their work provided the first insight into man's evolution from inexorably selfish beginnings to a higher organism that could "choose" to engage in complex cooperative endeavors while retaining the capacity for selfishness. This was no mean feat.

In trying to explain how unselfishness could emerge from self-interested behavior, evolutionary biologists looked to game theory—particularly to the game known as the iterated prisoner's dilemma. This provided a promising model for assessing the fitness effects of an organism's response when faced with the possibility of others' fruitful cooperation or ruthless betrayal (pp 191-209). The prisoner's dilemma model suggests that evolution's solution was to program man to be a vigilant and selective cooperator, willing to sacrifice and help if return in kind could be expected, but quick to defect and retaliate in the face of noncooperation or betrayal (pp 191-93). An organism able to execute a program roughly meeting this description would outlast its competitors by maximizing the net returns from cooperation over the long run (pp 197-201).

¹⁵ See George C. Williams, *Adaptation and Natural Selection: A Critique of Some Current Evolutionary Thought* 92-96 (Princeton 1966). See generally Robert L. Trivers, *The Evolution of Reciprocal Altruism*, 46 Q Rev Biology 35 (1971).

¹⁶ See Trivers, 46 Q Rev Biology at 35-36 (cited in note 15).

¹⁷ Williams, *Adaptation and Natural Selection* at 94 (cited in note 15); Trivers, 46 Q Rev Biology at 37 (cited in note 15).

¹⁸ Williams, *Adaptation and Natural Selection* at 95 (cited in note 15); Trivers, 46 Q Rev Biology at 37 (cited in note 15).

E. Evolution of the Moral Sense and the Formation of Status Hierarchy

The most difficult and most elusive part of Wright's story is his attempt to explain how man developed into a "moral animal"—a creature able and willing to formulate moral codes and act on moral precepts. His account takes as its starting point the evolution of reciprocal altruism. Wright recognizes that reciprocal altruism can proceed atomistically: each person decides how he will deal with every other on a case-by-case basis, depending on how he has been treated in the past and anticipates being treated in the future. But, in fact, man has not been content to proceed atomistically. Man's evolved psychology does not consist only of a series of "primal" emotional reactions to others' conduct. Persons not only react, they also judge. Indeed, they judge others' conduct by developing a principled sense of how persons in general ought to behave.

Wright seems to be saying that the emergence of this principled sense of correct conduct, and of the impulse to evaluate ourselves and others on a uniform standard of desirable and undesirable behavior, marks the appearance of the moral sense in evolutionary time. Wright embraces the view that these psychological capacities are the source of familiar systems of morality—the general codes of conduct that are marked by claims of universal application and objective legitimacy apart from the immediate satisfaction of the proponent's self-interest. It is with the source of the human propensity to formulate and adhere to these generalized precepts—what might be called the "deontic urge"—that Wright is centrally concerned in this book.

What accounts for the emergence of the deontic urge? Although it is central to his mission, Wright's answer to this question is difficult to grasp. That doesn't mean that sociobiology can't provide a good answer—it's just that it's hard to piece it together from what Wright says here.

To be sure, the functional role of the deontic urge is clear: that pattern enhances man's reproductive fitness by increasing the scale and extent of mutual cooperation. As Wright comments, "morality, after all, is the only way to harvest various fruits of non-zero-sumness—notably those fruits that aren't harvested by kin-selected or reciprocal altruism. Morality makes us mindful of the welfare of people other than family and friends, raising society's overall welfare" (p 359).

But how exactly do these group values actually emerge? What selective pressures cause group values to develop from

their absence? To the extent that Wright provides a forward-looking explanation, it begins, not unsurprisingly, with sexual dimorphism. The differential reproductive endowments of men and women, operating through sex selection, generate group status hierarchies among males (and to some extent among females allied with them). The propensity to form such hierarchies is an outgrowth of sex selection—in particular, the constant male rivalry for sexual access to females—as well as competition for material resources under conditions of scarcity. As Wright explains, sociobiologists have postulated that status hierarchies form as a way to forestall endless conflict (pp 239-40). Groups gel into temporary “pecking orders” or “dominance-subordination” hierarchies in which the weaker give ground to the stronger and individuals accept their places provisionally rather than risk losing all in fruitless fights for the top. Relative position within the group determines influence and resources and, ultimately, reproductive success.¹⁹ Consequently, organisms are powerfully programmed to engage in behaviors that will bring status and its rewards, and to avoid behaviors that result in loss of status.

Evolutionary theory predicts that, once the tendency to cooperate has spread within a population, individuals who adhere to the conventions of “surplus-maximizing” reciprocity will obtain an advantage over those who are less skilled at responding appropriately to others. Skilled reciprocators will attain higher positions in the group because the process of maneuvering successfully within status hierarchies draws heavily on cooperative effort (p 251). Wright describes the complex and variable dynamics of group status hierarchies, within which members form shifting alliances to attain or maintain power (pp 241-42, 250-71). The key point is that “the social scale can’t be ascended alone” (p 289). Those who would rise must induce loyalty and faith in subordinates and incur the gratitude of superiors. Evolution has equipped group members to respond to reliable reciprocators in positive ways, and to turn away from others. Without those responses, reciprocal altruism wouldn’t work. Thus, forms of trust-

¹⁹ Status hierarchy also represents a solution to the problem of distribution of the surplus generated through cooperation, which allocates relative shares on the basis of position in the hierarchy, thus minimizing the waste of resources on endless conflict over relative shares. There are clear benefits to combining cooperative effort with a relatively stable system of allocation. See, for example, Jody S. Kraus and Jules L. Coleman, *Morality and the Theory of Rational Choice*, 97 *Ethics* 715, 719 (1987) (“Cooperation is necessary to produce the surplus which is in turn contingent upon agreement on the division of those gains. No agreement upon relative shares, no surplus.”).

worthiness and other similar "virtues" work hand in hand with other attributes (strength, intelligence, cunning, and the like) to help individuals to rise on the status scale.

In sum, certain social virtues are preserved by evolution because they enable individuals to enlist the aid of others in maximizing material advantage and attaining greater reproductive success. That observation, however, still does not appear to explain the evolutionary preservation of the human tendency to develop elaborate normative systems. It does not point to a specific mechanism for the evolutionary preservation of the "deontic urge." We can see how the tendency to formulate and follow moral codes may be functional—it reinforces and coordinates tendencies toward cooperation. But functionality does not explain the provenance of moral capacity—that is, how it evolved from its psychological antecedents. It also does not explain the genesis of the specific content of moral codes. Wright's discussion leads to the prediction that, although alternative systems of honor or morality may differ in many particulars, they will share common features: respect for the virtues that make for fruitful cooperation and the assignment of prestige based on adherence to those values. Trustworthiness, generosity, fairness, loyalty, and honesty will be generally revered and deemed virtuous. Treachery and dishonesty will be despised (pp 190-91). But how did the high regard that attaches to individuals who exemplify these traits—regard that follows from their status—get translated into veneration for the abstract qualities themselves? What evolutionary forces produced the leap from concrete to abstract, and from recognition to exhortation?

A fully developed theory of evolution should not just explain the functional advantage of an evolved trait, but provide a detailed explanation of why it was preserved in the face of existing social and material circumstances. That requires showing how the trait confers reproductive advantages on an individual organism surrounded by others who do not possess the trait, for a basic tenet of evolutionary genetics is that traits emerge in one organism at a time. The logical question, then, is why it is in any isolated individual's interest to be regulated by a general precept—for example, the precept "do not betray a friend." Why not leave each person to his own devices, free to work out his own position on the hierarchy depending on how much trust and regard he can engender in others? What advantage does the capacity to influence and be influenced by normative conventions confer on the individual who is surrounded by persons without that

capacity? Put another way, although the tendency to think and act morally may enhance fitness when held in common, it is hard to see how that advantage could be felt without the trait appearing in most people simultaneously. That is a weak link in the theory, and Wright fails to grapple with it head on.²⁰ In the end he seems to fall back on the largely post hoc argument that because man emerged from evolution with a moral sense, and the moral sense would appear to enhance fitness, it must ultimately have biological roots.

F. Prestige and Moral Behavior

The observed tendency of persons to “think morally”—that is, in terms of what every person ought to do—is not the end of Wright’s evolutionary story. The quintessence of moral or normative systems is shared ideals—individuals are not left to formulate their own peculiar codes of conduct. Nor is each individual trusted to keep himself in line through “conscience,” or the privately felt compulsion to adhere to group ideals. Rather, Wright draws on the observation that groups enforce moral norms through an elaborate, exogenous, collective system of punishments and rewards.

This exogenous system takes advantage of a psychological tendency with a sound evolutionary pedigree: the individual’s desire for an advantageous position within the group, or what might be called “status hunger.” Wright’s account suggests that, by assigning status to virtue and threatening to deprive the vicious of their social position, groups wield a particularly effective tool for punishing violators and rewarding adherents to society’s norms. The rewards for virtue are not just trust, loyalty, and gratitude, but also high status within the group. The punishment for lack of virtue is not just resentment and guilt, but also the threat of loss of position within the social unit. That threat is carried out through the coordinated sanctions of scorn, ostracism, disapproval, stigmatization, and the whole range of formal and

²⁰ The same conceptual problem bedevils the issue of how cooperators—“doves”—acquired a stable evolutionary foothold amidst a community of relentlessly selfish “hawks.” Such a foothold would appear to be a necessary precondition to the flourishing of a community of reciprocal altruists. How cooperative behaviors first got started in the face of uncooperative competitors presents one of the central puzzles of evolutionary biology and is the subject of intense speculation in the sociobiological literature (pp 200-09). See also the discussion of reciprocal altruism at text accompanying notes 15-18.

informal measures by which societies, through the ages, have gotten people to do what they otherwise would rather not.

As Wright further explains, "status hunger" drives a desire not just to do, but more precisely, "to be seen doing [] what everyone says is good" (p 212). Indeed, evolution produces a creature that is concerned not so much with actual virtue as with the appearance of it (pp 263-64). According to Wright, we should expect appearance to be just as important as reality because other organisms' willingness to join forces with us is a function of whether we appear reliable. "[N]atural selection 'wants' us to *look like* we're being nice; the perception of altruism, not the altruism itself, is what will bring the reciprocation" (p 308).

In this scheme of things, reputation—that is, what others say about us and how we appear in their eyes—acquires enormous importance. The quest for moral standing is primarily a manifestation of the "desire to be known as a reliable reciprocal altruist," and the aim of conscience, and of feelings of guilt and shame, is not primarily to make us generous and decent, but to drive us to cultivate a reputation for generosity and decency (p 212). Wright asserts that it is the desire for a virtuous reputation that "helps give consensual moral codes their tremendous power" (p 212).

G. It Takes a Gene to Beat a Gene

From Wright's picture of the evolution of the "moral animal," it is possible to piece together a vision of how culture and biology interact to regulate key elements of social behavior. According to Wright, it is no accident that cultural traditions that effectively channel and control natural desires tend to call upon moral concepts of right, obligation, and duty. These normative traditions capitalize on the biologically rooted attraction to universal precepts, which in turn tend to maintain evolutionarily stable cooperative arrangements. Those precepts are enforced primarily by assigning high group status to adherents to the rules, and by threatening status loss to deviants.

Within this framework, normative cultural conventions succeed not by opposing the "artificial" or the conventional to the natural, but by calling a truce in the war of *conflicting* natural impulses. The "natural" longing to be known as good, admirable, honorable, or worthy within a shared scheme of moral valuation is enlisted to fight the "natural" tendency to engage in short-term, egotistical, selfish, individualistic, domineering strategies. The need to be held in high esteem by one's fellows (and perhaps

oneself) is as reliable a feature of man's evolved psychology as, for example, his need for sexual gratification. Man's drive for honor and a good reputation (and his longing to avoid disgrace) is just as firmly grounded in biology as any other basic human desire.

Thus, Wright's discussion leads us to understand that successful moral systems achieve stability by harnessing one set of evolved psychological tendencies against others. Moral institutions are the method by which desire fights desire. As Wright explains, "[a]nd so it is whenever a strong animal impulse is consistently thwarted by a moral code: violation would bring low repute, the avoidance of which is also a strong animal impulse. Effective moral codes fight fire with fire" (p 356). In other words, it takes a gene to beat a gene. Although conscience, guilt, and the evolved capacity for moral reasoning play some role, the key gene-beating genes are those that make us care for reputation within the context of social groups. As we have seen, the importance of the self's standing in others' eyes is not surprising, since it affects our success in the complex game of cooperation and conflict—our position in the "pecking order" and the willingness of others to join us in beneficial cooperative ventures—that bears so directly on our reproductive success in the ancestral environment.²¹

The central insight from Wright's synthesis—and one with important implications for social policy—is that the hunger for group acceptance is vital to society's ability to enforce codes of conduct among its members. The tools of enforcement are informal third-party sanctions in the form of ostracism, scorn, indignation, disapproval, stigmatization, shunning, and gossip—what Wright calls the forms of "social firepower" (pp 142-43). Evolutionary psychology would predict that the efficacy of these sanctions would not depend solely on the material consequences that follow from decline in social standing.²² Rather, they also play

²¹ Group-oriented behaviors—the quest for group identification, group status, and esteem within groups—have received recent notice by legal scholars and economists as important motivating factors that explain key elements of social behavior. See, for example, Robert Axelrod, *Laws of Life*, 27 *The Sciences* 44, 45-46 (Mar/Apr 1987); Robert C. Ellickson, *Order without Law: How Neighbors Settle Disputes* 167-83, 230-39 (Harvard 1991). See also Richard H. McAdams, *Cooperation and Conflict: The Economics of Group Status Production and Race Discrimination*, 108 *Harv L Rev* 1003, 1026-30 (1995) (noting that "[s]ociological evidence supports the theory that socially connected groups allocate esteem to overcome collective action problems," and explaining that individual group members improve their own positions not just by raising their individual status within groups, but by raising the status of their group relative to others).

²² See, for example, McAdams, 108 *Harv L Rev* at 1028 (cited in note 21) (criticizing

on the fear of loss of esteem or "face" that evolved to head off the grave material and reproductive consequences of being cast out of the group in the ancestral environment.²³

II. THE CRITIQUE OF SOCIOBIOLOGY

To say that behavior is determined by the environment, or by the genes and the environment, does not say much of anything, because the next question is: how? To say that behavior is determined by the genes seems to settle everything.

Richard Alexander²⁴

Ever since Darwin, evolutionary theory has engendered opposition and even hostility (pp 327-29, 345-46).²⁵ Wright's account rests on twin pillars of man's evolved psychology: the tendency to prescribe codes of conduct (or what might be called "moralism") and the desire for group esteem. These general claims about "human nature" bear closer examination. There appear, from time to time, persons who are either amoral or largely indifferent to the opinions of others. Do these exceptions impugn Wright's claims? Are there other more general reasons to doubt the validi-

Jon Elster for assuming that "mechanisms like gossip, scorn and ostracism work only to signal who is to be subject to material sanctions and are only as effective as those material sanctions").

²³ This insight is in keeping with a pattern observed by Wright and others. Modes of conduct within groups rest "not just on norms but on 'metanorms': society disapproves not only of the code's violators, but also of those who tolerate violators by failing to disapprove" (p 357). Group members shore up the valuable shared good of prestige by insuring that others do not dissipate it by rewarding (or failing to censure) persons who do not conform to group norms. See McAdams, 108 Harv L Rev at 1027 (cited at note 21) ("[T]he unique contribution norms make to cooperation—the additional power of norms beyond reciprocity—is third-party enforcement."). See also Ellickson, *Order Without Law* at 230-33 (cited in note 21).

²⁴ *Darwinism and Human Affairs* 97 (Washington 1979).

²⁵ See, for example, Daniel C. Dennett, *Darwin's Dangerous Idea: Evolution and the Meanings of Life* 61-68 (Simon & Schuster 1995) (discussing the "controversy and anxiety that has enveloped Darwin's idea"). Sociobiology has also encountered hostility from those who fear that it will undermine the foundations of moral authority (pp 327-29). Wright acknowledges that the fear is not unfounded, and that reconciling the conceptual underpinnings of moral justification—including the existence of free will—with an evolutionary account of man's psychology creates some thorny philosophical problems. He nevertheless appears to adopt the pragmatic position that a sociobiological understanding of human nature is not incompatible with a workable system of moral standards backed by moral sanctions (pp 345-79). For a less sanguine view, see text accompanying note 93.

ty of sociobiological reasoning? Wright does not purport to offer a comprehensive defense of sociobiology against all comers, and undertaking such a task is beyond the scope of this Review. A number of critiques must be considered briefly, however, in order to make sense of *The Moral Animal's* view of the evolutionary origins of the moral sense.

Because any attack that rests on exempting man wholly from the logic of biological evolution is difficult to square with basic scientific knowledge,²⁶ many critics stop short of a sweeping denial that genes—and the forces of genetic evolution—have influenced man's development as a biological organism. The goal of most criticism is largely negative: to show the weakness of sociobiological theories rather than to construct a fully coherent and convincing alternative view of human motivation and behavior. Although many critiques of sociobiological thinking are grounded in technicalities of evolutionary theory that are not easily accessible to the nonspecialist,²⁷ some arguments can be generally understood and deserve some response.

A. Just-So Stories

First, sociobiology is commonly attacked as an empty science. Because the concept of fitness maximization is essentially a tautology, sociobiology risks degenerating into a set of "just-so" stories: post hoc rationalizations that find fitness-maximizing effects for every existing behavior. The objection is made that, for every account of why an observed strategy is "adaptive," an equally plausible story can be told as to why the behavior is not adaptive at all.²⁸ Second, sociobiology lacks predictive power. It cannot

²⁶ See note 7.

²⁷ For example, recent paleontological and zoological observations are said to suggest that there is a good deal of chance and randomness in the evolution of species: not all stable evolutionary change is adaptive (that is, reproductively fitness-maximizing), and not all adaptive change is preserved. See, for example, Richard C. Lewontin, Steven Rose, and Leon J. Kamin, *Not in Our Genes: Biology, Ideology and Human Nature* 262-64 (Pantheon 1984).

²⁸ See, for example, Lewontin, Rose, and Kamin, *Not in Our Genes* at 261-62 (cited in note 27) (claiming that sociobiology is unfalsifiable); Anne Fausto-Sterling, *Myths of Gender: Biological Theories about Men and Women* 196-99 (Basic Books 1985) ("Human sociobiology is a theory that inherently defies proof."); Philip Kitcher, *Vaulting Ambition: Sociobiology and the Quest for Human Nature* 230-36 (MIT 1985) (examining the dangers of "adaptionist storytelling"). See also Stephen Jay Gould and Richard C. Lewontin, *The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme*, in Elliot Sober, ed., *Conceptual Issues in Evolutionary Biology: An Anthology* 252, 257-58 (MIT 1984). Even Edward O. Wilson, the father of modern sociobiology, acknowledges that:

tell us how individuals or specific cultural groups will behave, because it provides no useful account of how genetics, environment, and social conditions interact to produce certain results. Why are some groups irenic and others warlike; why do some adopt monogamy and others polygamy; and why are some patriarchal and others matriarchal? Sociobiology does not say how the human organism comes to play a particular cultural variation on a basic genetic theme.

On the first point, there is no escaping the requirement that sociobiology provide an account of considerable behavioral variation, encompassing great extremes of human social life. Thus, any theory of human behavior will sometimes appear to explain everything, because it must explain so much. Sociobiology retains meaningful explanatory power, however, because, in addition to dealing with variation (as any theory of human behavior must), it accounts for sameness, and does so better than its rivals.

As for the second objection, if sociobiology cannot yet generate accurate predictions from first principles concerning the behavior of specific individuals or societies, that deficiency is not peculiar to the discipline, but is shared by all the social sciences that seek to take the measure of human complexity. Evolutionary biologists do not have the luxury of rerunning the complete sequence of human evolution in their labs. As a consequence of the unimaginably complex inputs into human existence—as well as ethical limits on experimentation—the inability to reconstruct the studied phenomenon may be an unavoidable feature of human social science that can never be completely overcome.

Alternatively, there may come a time when our knowledge can encompass the multifarious variables and feedback loops that influence social life. It is clear, however, that sociobiology's limited ability to predict the specifics of individual or group behavior will not improve without progress in basic molecular science. Our understanding of how "genotype" directs "phenotype"—that is, how the molecules carrying the genetic code control an organism's anatomy, physiology, and behavior—is still in a primitive state. With only a handful of exceptions, the human genome is unmapped territory, and little is known of the molecular prod-

The greatest snare in sociobiological reasoning is the ease with which it is conducted. Whereas the physical sciences deal with precise results that are usually difficult to explain, sociobiology has imprecise results that can be too easily explained by many different schemes.

ucts of the human genome or how those products function. Even less is known about how groups of genes interact with internal physiological conditions and outside influences—including, most importantly, the behaviors of other organisms in the social setting—to direct or modulate the genetic program. This knowledge will be forthcoming with time, however, and sociobiology may ultimately prove more transparent than other social sciences because it seeks to tie behavior to molecular events. Meanwhile, without benefit of advanced knowledge of molecular mechanisms, sociobiology must make do with the idea of genes “for” psychological tendencies as abstract placeholders in a still incomplete theory, and with the understanding that genetic influence is compatible with a range of behaviors that manifest themselves depending on the circumstances. The theory is not wrong, however, simply because the current limitations on empirical knowledge make it impossible to test definitively.

B. Capable of All and Predisposed Toward None

The second line of argument focuses on the existence of extreme variations in human culture and behavior. It infers from these anthropological facts that all variations are equally possible, and that the idea of predisposition is incoherent. Alternatively, the suggestion is made that genetics-based influences, even if present, are so inconsequential in the face of autonomous forces of human culture that they can be effectively disregarded.

The objection that there is an exception to every sociobiological generalization about human nature is persuasive only against a crude misunderstanding of the theory. Sociobiologists speak of “predispositions,” “inclinations,” and “tendencies,” but acknowledge a critical role for circumstance, environment, and culture (which is man-made environment) in determining the extent to which predispositions are expressed.²⁹ Indeed, the whole point of Wright’s book is that human norms and conventions—the essence of culture—decisively shape behavior. Wright analogizes the complex of genetic material that influences human behavior (the genotype) to the knobs on a radio, and the range of behaviors that individuals actually display (the phenotype) to the possible “tunings” of the dial (pp 9, 82). The

²⁹ See, for example, Charles J. Lumsden and Edward O. Wilson, *Genes, Mind, and Culture: The Coevolutionary Process* 3-5 (Harvard 1981) (identifying the distinctive features of the human enculturation process); Edward O. Wilson, *On Human Nature* 18-19 (Harvard 1978) (recognizing that culture is influential but not “all-powerful”).

genetically endowed “knobs of human nature” are “environmentally tuned to widely varied settings” (p 213). The rules for environmental tuning—and the range of possible settings—are influenced by genetic developments. What actually gets played is a mixed product of both genetic ground rules and nongenetic influences—the tuning as well as the knobs.

Some biologists, although not denying that there may be genetically patterned reactions to environmental cues, nevertheless appear to reason that such patterned responses do not, in themselves, add up to “predisposition,” because diametrically opposed behaviors can be observed in the human repertoire, depending on environmental and social conditions.³⁰ For example, Stephen J. Gould, a prominent critic of sociobiological analysis, argues:

Why imagine that specific genes for aggression, dominance, or spite have any importance when we know that the brain's enormous flexibility permits us to be aggressive or peaceful, dominant or submissive, spiteful or generous? Violence, sexism, and general nastiness *are* biological since they represent one subset of a possible range of behaviors. But peacefulness, equality, and kindness are just as biological—and we may see their influence increase if we can create social structures that permit them to flourish.³¹

This paragraph would elicit no serious objection from the diehard evolutionary psychologist. Gould strays from the sociobiological framework, however, when he goes on to say:

Thus, my criticism . . . merely pits the concept of biological potentiality, with a brain capable of the full range of human behaviors *and predisposed toward none*, against the idea of biological determinism with specific genes for specific behavioral traits.³²

The essence of the quarrel with sociobiology revealed by this passage is the idea that the preprogrammed response to a particular environmental signal is not a “predisposition” if that response is one of a range of available reactions. The problem with

³⁰ See Lewontin, Rose, and Kamin, *Not in Our Genes* at 252-53 (cited in note 27); Stephen Jay Gould, *Biological Potential vs. Biological Determinism*, in Arthur L. Caplan, ed., *The Sociobiology Debate: Readings on Ethical and Scientific Issues* 343, 349 (Harper & Row 1978).

³¹ Gould, *Biological Potential vs. Biological Determinism* at 349 (cited in note 30).

³² *Id.* (emphasis added).

this idea, however, is that it looks only to the absolute and not to the relative incidence of behaviors. The concept of predisposition is most useful in making group comparisons. It makes sense to say that males and females, on average, have different predispositions for aggression if the conditions for eliciting aggression are different for the two sexes. If, for example, males, on average, engage in physical violence more often, and in a greater number of circumstances, than females, then we would say that males have a greater predisposition for violence. That would be so even if we observed that males refrain from violence most of the time.

Predisposition talk is therefore appropriate when a behavior and its absence are encountered with unequal frequency over the range of observed situations, or when more extreme conditions are required to suppress a behavior than to bring it out (or vice versa). Gould and his colleagues, therefore, are simply wrong if they mean to assert that a behavior that is not uniformly observed is necessarily elicited and suppressed with similar frequency and ease.

This exposition reveals the false dichotomy upon which hostility to sociobiology is based. Either man has no meaningful biological nature, in that all cultural variations are equally possible and feasible, or man has a biological nature that rigidly determines and painfully limits the possibilities that can be attained by social engineering. Neither view is correct. Between one-for-one genetic determinism and the tabula rasa of unlimited biological potential lies a third possibility that is closer to the truth: man is capable of "the full range of human behaviors," but he is predisposed toward some rather than none. The idea that not all potential behaviors are brought out with equal ease or frequency is best captured in the concept of the bell curve, to which so many biological phenomena conform. For any observable human trait, the genome creates a predominant mean around which less common variations occur. The conformity of human behavior to the bell curve applies in two senses. First, there is individual variation in the response when environmental and social cues are held constant. (For example, men and women may differ on average in aggressiveness, with some women more aggressive than some men.) And there is variation in the *responsiveness* of various behaviors to environmental and social cues. (For example, aggression may be elicited over a broader range of circumstances than nonaggression.) In sum, man does indeed have tendencies, some stronger, more pervasive, and more "hard wired" than others. To say that, however, is not to say that the

tendencies cannot be curbed or overcome by the forces of culture or morality.

C. The Forces of Cultural Evolution

Perhaps the most formidable objection to sociobiology is that some human behaviors seem beyond the reach of even the most ingenious sociobiological explanation. Advanced cultures have adopted practices that not only appear to undermine inclusive fitness, but also appear not to satisfy any elemental preferences that would enhance fitness in any other setting.

The difficulty of providing a genetic evolutionary account for some observed cultural trends does not prove that genetic evolution has no role in shaping behavior, however. In seeing that point, it is necessary to keep in mind the distinction between cultural practices that have the *effect* of reducing fitness, and those that appear directly to frustrate the types of elemental preferences for which genetic evolution would be expected to select. As already discussed, practices that are preference frustrating—most notably, cultural conventions that curb sexuality or aggression—may be fitness enhancing when globally adopted.³³ Moral systems often function to encourage unselfish behaviors that require the suppression of powerful desires.

As for practices that would appear to have fitness-reducing or fitness-neutral effects, these are not necessarily inconsistent with an evolutionary influence on preferences. First, sociobiology does not claim that every human taste will have the same effect on reproductive success. There are details of behavior that do not influence fitness one way or the other. That is because alternative sets of cultural conventions, which form the bases for many kinds of prestige systems, can have similar fitness effects. What matters for purposes of enhancing fitness is only that the conventions exist, and not their precise content.³⁴ Second, evolution does not ensure that man will behave in a manner that maximiz-

³³ See text accompanying notes 21-23.

³⁴ See Robert Boyd and Peter J. Richerson, *Culture and the Evolutionary Process* 241-42 (Chicago 1985). See also Richard D. Alexander, *Evolution and Culture*, in Napoleon A. Chagnon and William Irons, eds, *Evolutionary Biology and Human Social Behavior: An Anthropological Perspective* 59, 76 (Duxbury 1979) (The arbitrariness of some cultural forms does not mean that the existence of those forms is "trivial or unrelated to reproductive striving." The relationship of art, music, or literature to status does not depend on an "alliance with a particular form but with whatever form will ultimately be regarded as most prestigious. If one is in a position to influence the decision he can, to one degree or another, cause it to become arbitrary.").

es fitness in every conceivable environment. Cultural innovation and advanced technologies—such as contraception—have permitted the systematic derailment of many of the consequences of acting on our elemental emotions and preferences. The psychological tendencies that led to reproductive success during the ancestral period may not always result in maximization of reproductive fitness when allowed to play out amid the complexities of advanced civilization. Evolution works by channeling man's reactions to common situations, not by guaranteeing the "ancestral" consequences of behavior against interruption. It is therefore a conceptual mistake to view genetically maladaptive *outcomes* as incompatible with the expression of evolved aspects of human psychology.³⁵ The fact that persons behave in a manner that is presently maladaptive does not mean that culture has effectively canceled the *psychological* program with which man emerged from the ancestral environment.

The existence of the ability to deflect the consequences of venting originally adaptive human desires, however, cannot fully explain why a particular custom takes hold. For example, that contraception is available does not tell us why its use becomes widespread. For a more complete account of how apparently fitness-reducing practices become a feature of social life, we must look beyond sociobiology—which focuses on genetic change and transmission as the engine of behavior preservation—to the theory of cultural evolution, which posits an autonomous parallel system of adaptation and transmission that coexists with ordinary genetic evolution.

One of the weaknesses of Wright's book is that he barely touches on theories of autonomous cultural transmission, thus ignoring the most important recent thinking about how behavioral patterns can diverge from those expected from the operation of

³⁵ The confusion inherent in the tendency to judge the adaptiveness of elements of human psychology by reference to whether they produce fitness-enhancing *outcomes* in the modern world is exemplified by this passage:

Preferences are governed by the all-encompassing *drive for reproductive survival*. This might seem at first absurd. That all humans do not solely and totally regard themselves as children-making machines seems evidenced by phenomena such as birth control, abortion, and homosexuality. Or, if these be considered aberrations, by the large fractions of income and effort devoted to human aims that compete with child-rearing . . . Yet, all these phenomena might still be indirectly instrumental to fitness. . . . [E]ven a childlessness strategy *may* be explicable in fitness terms!"

genetic selection alone.³⁶ Cultural theorists recognize independent mechanisms—role models, for example—for preserving cultural practices over individuals and generations. Like genes, the elements of culture “mutate”—they generate modifications and undergo drift. The behavioral variations that arise within a culture are selectively passed on to others through social learning and emulation, rather than through biological reproduction.³⁷

The autonomy of cultural evolution notwithstanding, there is at least one important sense in which cultural transmission is grounded in biology. The human tendency to emulate cultural models is itself an expected product of genetic evolution: the transmission of culture through emulation is adaptive because it allows individuals to acquire accumulated wisdom, obviating responding to every situation through an inefficient trial-and-error process.³⁸ There is an important difference, however, between the mechanisms of biological and cultural transmission. In contrast to genetic evolution, the reproductive success of the “cultural parent” is not an absolute precondition for successful preservation of a custom through cultural transmission. Although the transmission of cultural habits from parents to children is a common and effective form of cultural transmission, persons other than biological parents can serve as powerful cultural role models. These role models conscript other people’s children; they need not produce their own. The theory of cultural evolution explains how genetically “maladaptive” traits can acquire stable cultural footholds and persist for long periods despite their failure to enhance the reproductive success or genetic fitness of those who adopt them.³⁹ It is only necessary that some people adopt the practices of a role model, and then serve as role models in turn.⁴⁰

³⁶ That theory is set forth in its most comprehensive form in Boyd and Richerson, *Culture and the Evolutionary Process* (cited in note 34). See also Dawkins, *The Selfish Gene* at 203-15 (cited in note 9).

³⁷ Boyd and Richerson define social learning as “the transmission of stable behavioral dispositions by teaching or imitation.” *Culture and the Evolutionary Process* at 40-41 (cited in note 34). Cultural patterns are transmitted through a combination of pure imitation, backed by social reinforcement or sensitive to the incidence of the trait in the social universe, and forms of critical emulation that allow individuals to conduct a limited assessment of the range of cultural offerings.

³⁸ *Id.* at 8-12.

³⁹ See *id.* at 11 (“Natural selection acting on cultural variation can cause the evolution of different behaviors from those one would expect as a result of selection acting on genetic variation when the pattern of cultural transmission is different from the structure of genetic transmission.”). See also *id.* at 172-203 (providing models to show how “natural selection acting on culturally transmitted variation may act to increase the frequency of genetically deleterious variants” and “seemingly maladaptive behaviors”).

⁴⁰ Thus, even if a practice results in a lowered reproductive rate, it will not die out as

There exist, then, two identifiable mechanisms by which persons can be induced to behave "against nature." Cultural norms spread through the combination of a relatively passive process of cultural transmission—which involves the emulation of elites or role models⁴¹—and a more active process of moralization and moral enforcement. What is remarkable is that, although these general mechanisms originally evolved because they promoted fitness overall, they can sometimes result in specific behaviors that not only are "fitness reducing"—that is, lack any obvious evolutionary advantage—but that also are "preference frustrating"—that is, require people to forgo acting on important elemental desires.⁴²

With respect to the subset of practices that are both "fitness reducing" and "preference frustrating,"⁴³ moral psychology combined with cultural evolutionary theory can offer some account of how those practices come to persist once they arise. They gain a stable foothold because they are passed down through cultural imitation or perpetuated through norm creation and enforcement.

long as reproduction in the society as a whole does not fall below a certain minimum. One notable example is the dramatic decline in fertility in Western industrial societies—the so-called Western demographic transition. Persons who attain positions of technocratic authority within sophisticated Western cultures will be those who have devoted themselves to the time-consuming development of professional expertise and slighted the competing demands of child rearing. The "norms of family size" established by professionally successful persons will tend to influence others who aspire to the same status. Although, in the end, that trend might benefit the long-term survival of the human species, it reduces the inclusive fitness of individuals who join in the trend by inducing a decline in their relative reproductive success.

⁴¹ See Boyd and Richerson, *Culture and the Evolutionary Process* at 245 (cited in note 34). See also id at 200 (stressing the influence of "teachers and managers" in disseminating cultural norms within modern society).

⁴² Not all behaviors that are "fitness reducing" are also "preference frustrating," and vice versa. For example, although the declining fertility effected by the so-called industrial demographic transition is "fitness reducing," it is not "preference frustrating"—that is, it is not accomplished through any fundamental frustration of man's basic "nature." Human beings are not programmed to do everything in their power deliberately to increase their number of offspring, but only to behave in ways that would tend to have that effect in the ancestral environment. Birth control works without dictating fundamental changes in sexual behavior. Likewise, sexual conventions such as premarital chastity and fidelity are "preference frustrating," but can be fitness enhancing if they result in social stability, fruitful cooperation, and better care for offspring that are produced. See note 40.

⁴³ Two striking examples of practices that share both these characteristics—and that have been regarded as straining sociobiology's explanatory powers—are church-decreed celibacy and the suicide ethic of the soldier who dies for his country (pp 365-66, 390-91). In both cases, the custom at issue severely curtails the number of an individual's offspring. Moreover, the curtailment is not (as with contraception) a matter of artificially interrupting the consequences of otherwise "natural," desire-satisfying behavior, or of sacrificing short-term fitness gains for fitness-enhancing effects in the long run.

We have explained how “preference-frustrating” behaviors can be adopted through moralization. The theory of cultural evolution postulates that unappealing practices can also be preserved through the uncoerced process of emulation. This model suggests that advanced cultures often put evolved elements of psychology to uses for which they were not originally “designed.” As a by-product of the generic propensity for emulation and the desire for group status, persons may be manipulated into believing in the worth of ideals and goals that are neither in their own best interests—reproductive or otherwise—nor in society’s, but that may be in the best interests of the ideas’ purveyors.

The formulation of cultural ideals, however, need not always be the product of interested manipulation. The logic of genetic evolution is not necessarily inconsistent with man’s ability to formulate autonomous moral goals, or to develop a sense of the good life, even when these have little to do in practice with advancing genetic imperatives. (To take an example, societies do not generally prescribe the wholesale murder of postmenopausal women—a reproductively useless, resource-consuming group.) The hold that autonomous moral ideals have over us may be the byproduct of a generic sensitivity to moral values and the ability to engage in the characteristic processes of moral reasoning. In short, culture frequently operates by conscripting evolved psychological machinery in the cause of goals that do not necessarily advance evolution’s aims. As a result, our evolved psychology is potentially serviceable in a variety of causes and can be conscripted to enforce a range of social norms.

If neither fitness effects nor elemental human desires necessarily stand as an obstacle to diverse (and perverse) forms of social life, are we left with the conclusion that the capacity for morality and for autonomous culture make almost any form of social life possible? What remains of the difference between the sociobiologist’s vision of human nature and that of its critics? It can be argued that something is indeed left, because the the possibility of wide cultural variation does not depend on denying the existence of innate psychological predispositions, but is perfectly compatible with them. Although sociobiology is not antithetical to quite significant social change, it does predict that some social practices are unlikely to arise spontaneously, or may be quite difficult to bring about, under ordinary conditions of material life. Thus, effecting some social reforms will require more strenuous, coordinated intervention—or even coercion—than others.

For example, it would be hard to produce a society in which young and beautiful women were spurned in favor of the old and ugly, kin were treated worse than strangers, and treachery was rewarded rather than resented. Likewise, celibacy and martial self-immolation, although recognized social phenomena, are unlikely ever to become widespread.⁴⁴ Leaving aside whether we would wish to achieve these radical outcomes, evolutionary theory suggests that such "reforms" might carry the onerous and possibly intolerable costs of overriding strong biological tendencies. As Richard C. Lewontin, Steven Rose, and Leon J. Kamin put it:

A concept of gene action that permeates sociobiology is that alternative forms of social organization are allowed by the genes, but only at the cost of great effort and psychic pain Certain states of society are more "natural" and therefore easier and more stable. Others require a constant input of energy to maintain. . . . This is the meaning of the assertion that "some behaviors can be altered experientially without emotional damage or loss in creativity. Others cannot."⁴⁵

Not only does sociobiology hint that we would pay a high price for maintaining or altering some social customs, but it also has something to say about the methods of social control that are most likely to bring about those "unnatural results." The possible applications of those methods are discussed more fully in the next Part.

III. THE MORAL ANIMAL AND SOCIAL LIFE: HARNESSING THE INSIGHTS OF SOCIOBIOLOGY

It takes a great effort of will and intellect for the individual to decide for himself that something is immoral and to act on that belief, when the law declares it legal and the culture deems it acceptable.

Gertrude Himmelfarb⁴⁶

⁴⁴ See note 43 and accompanying text.

⁴⁵ Lewontin, Rose, and Kamin, *Not in Our Genes* at 254 (cited in note 27), quoting Wilson, *Sociobiology* at 575 (cited in note 8).

⁴⁶ *The De-Moralization of Society: From Victorian Virtues to Modern Values* 248 (Knopf 1995).

Presumably, the price of sexual equality is eternal vigilance.

Richard C. Lewontin, Steven Rose, and Leon J. Kamin⁴⁷

A. Lessons of Evolutionary Psychology

As Wright himself realizes, sociobiology cannot in itself establish a system of values, and in that sense it has no normative implications (p 10). It does, however, have something to say about the likely consequences of particular social arrangements and the measures designed to bring them about. Unfortunately, even well intentioned attempts to draw functional lessons for social policy from evolutionary concepts often go awry by taking sociobiological speculation too seriously. It is on the "retail" level—that is, at the level of trying to show that specific, culturally conditioned practices are the direct product of biological forces—that sociobiologists get into trouble. The usefulness of sociobiology is at the "wholesale" level—in making cautious generalizations about the common structural and functional features of diverse cultures that trace their origins to biological forces. This "wholesale" understanding can generate some important instrumental insights into social policy.

Lessons of sociobiology align with fundamental precepts of social conservatism for three reasons. First, although an evolutionary approach does not require denying the efficacy of concerted social intervention to influence behavior—indeed, it explains why such social intervention is a common feature of communal life—it identifies the main obstacles to radical social change as lying within the individual rather than outside of him. It posits unavoidable tradeoffs ultimately grounded in biological nature—between freedom and order, desire and well-being, and stability and equality—that confront every melioristic or utopian project. Second, sociobiology suggests that the observed superiority of some traditional institutions (such as the two-parent family) in performing certain functions (such as raising children)⁴⁸ does not stem from the arbitrary decision to "privilege" those institutions (although they have indeed been privileged in law and custom). Rather, the functional superiority is the product of features inherent to the institutions as they respond to our biologi-

⁴⁷ *Not in Our Genes* at 254 (cited in note 27).

⁴⁸ See text accompanying notes 62-65.

cal endowments. Third, sociobiology points to the importance of moral climate and “cultural values” in fostering behaviors that make for a peaceful and prosperous society.

1. The power of informal norms.

Sociobiology suggest that legal theory and social policy have paid too little attention to social norms.⁴⁹ Man evolved to operate within groups that esteem their members based on conformity to norms of conduct. Because man is so powerfully programmed to fear group disapproval and status loss, group-based norms—especially those that prescribe general principles of “right conduct” within a comprehensive system of morality—can be expected to have an important influence on human behavior. In particular, social norms are likely to be as effective, or more effective, in influencing human conduct than appeals to logic and self-interest, the structure of economic incentives, or the imposition of legal sanctions.

2. The fragility of informal social norms: moral systems as entropic.

Sociobiology suggests that moral systems, although powerful, are fragile. They are always threatening to unravel; we could say that moral systems have entropy. The instability of moral systems is a function of their role in restraining some elements of human nature. In prescribing honesty against deception, generosity against selfishness, love for nonkin against nepotism, constructive industry against parasitism, and restraint against predation, moral systems ask persons to forgo strategies grounded in powerful evolved preferences. This is especially so in the area of sexual morality, where particularly strong impulses are at play. But running uphill against natural desires is an inherently

⁴⁹ There are exceptions. See, generally Ellickson, *Order Without Law* (cited in note 21); Lawrence Lessig, *The Regulation of Social Meaning*, 62 U Chi L Rev 943 (1995). See also George A. Akerlof, *An Economic Theorist's Book of Tales: Essays that Entertain the Consequences of New Assumptions in Economic Theory* 69-99 (Cambridge 1984) (suggesting that social customs that are economically disadvantageous to the individual can persist, and are maintained by the threat of loss of reputation); Dennis Chong, *Collective Action and the Civil Rights Movement* 65-67 (Chicago 1991) (noting the effect of nonmaterial concern for reputation as a motivator in civil rights activities); Robert D. Cooter, *Structural Adjudication and the New Law Merchant: A Model of Decentralized Law*, 14 Intl Rev L & Econ 215, 218-27 (1994) (arguing for use of local customs as rules for legal decision making).

strenuous endeavor, and the threat of noncompliance is ever present.

Social norms are also unstable because following norms is only worthwhile if those norms command widespread adherence. Morality performs a coordination function. The logic of cooperation shows that the fruits of restraint are forthcoming only if most people follow the rules. The benefits of good behavior diminish when virtue becomes the minority strategy and more members of an interactive group turn to ruthlessness. This indicates that the maintenance of strong norms requires a "critical mass" of consensus (agreement on standards) and conformity (adherence to standards). Finally, our evolutionary past suggests that the best chance for controlling predatory and selfish behavior is through the maintenance of close-knit communities. As Wright observes, "integrity and honesty make particular sense in a small and steady social setting," for such a setting insures that "the people you're nice to will be around for a long time" (p 220). The social monitoring made possible by long-term intimacy strengthens norms by insuring that infractions will be remembered and that violators will be punished in future transactions.

Lack of conformity can accelerate the erosion of norms in another way: the price of enforcement rises with the number of nonconformists. Elaborate social norms can be maintained only through strenuous and coordinated effort. The effectiveness of the techniques of social control by which groups make good on threats of status loss depend critically on society-at-large or bystander enforcement (p 356). Group members must be willing to join in sanctioning "deviant" individuals even if they have suffered no direct injury at the deviant's hands. Moreover, the willingness to police norms must in turn be enforced through sanctions against those who consort with violators or condone deviant behavior.⁵⁰ But, bystander sanctions are less likely to be imposed as deviant behavior becomes more common. Sanctioning a significant segment of society—especially where that group is diffused through the population and includes relatives and friends—is burdensome, expensive, and socially awkward. Sanctions decrease the opportunity for social and economic interaction with deviants, thus decreasing the pool for deals, aid, and ex-

⁵⁰ See, for example, McAdams, 108 Harv L Rev at 1026-29, 1064-67 (cited in note 21) (describing work of social theorists concerning informal third-party sanctions against violators and those who consort with violators of group norms). See also Akerlof, *An Economic Theorist's Book of Tales* at 34-41 (cited in note 49) (arguing that those who fail to enforce a caste custom are themselves considered outcasts).

change. The secondary function of sanctioning those who fail to sanction transgressors becomes correspondingly more onerous. All this adds up to a tendency, famously described by Senator Daniel Patrick Moynihan, to “define deviancy down”—that is, to “normalize” and accept previously unacceptable behaviors as they become more common.⁵¹

3. The costs of tolerance.

The insights of sociobiology shed light on the costs of moral neutrality and tolerance in private life and advise care in the interference with informal norms through public policy choices. Constructive social norms are very difficult to create and maintain, and easy to destroy. Those observations counsel renewed respect for the power and value of private sanctions in stabilizing informal expectations.

To borrow Wright’s term, collective “social firepower” is needed to maintain the integrity of normative systems, precisely because those systems seek to suppress powerful “natural” impulses (pp 142-43). Social firepower cannot be brought to bear without a willingness to engage in “moralism”—that is, to define standards of acceptable behavior, to defend them fiercely, to create “prestige systems” based on them, and to punish deviation from them through public shaming and other methods of private concerted action. There must be the social will to visit the types of harsh consequences on violators that resonate to the fear of being cast out, and the widespread willingness to foster those fears through forms of upbringing and education that engender strong guilt and shame at the prospect of transgressing established behavioral expectations.

An understanding of the “natural” role and psychology of social norms assigns an important place to negative sanctions, both internal and external, as powerful motivators for self-restraint and self-improvement. It also points in the direction of reviving the socially embedded emotion of shame as an important factor in social life.⁵² Wright criticizes modern societies for wast-

⁵¹ Daniel Patrick Moynihan, *Defining Deviancy Down*, 62 *Am Scholar* 17 (Winter 1993). See also Himmelfarb, *The De-Moralization of Society* at 234-39 (cited in note 46).

⁵² See, for example, Toni M. Massaro, *Shame, Culture, and American Criminal Law*, 89 *Mich L Rev* 1880, 1900-06 (1991). Psychologists and anthropologists draw a distinction between shame and guilt. See, for example, Jerome Kagan, *The Nature of the Child* 145-49 (Basic Books 1984). Generally speaking, guilt refers to “a negative feeling that exists even when others do not know of one’s transgression,” whereas shame is a negative feeling that depends on “others['] belie[f] that one has transgressed.” McAdams, 108 *Harv*

ing the evolutionary resource of love (p 104). He could as well say that, in failing to aggressively stigmatize forms of conduct with undesirable consequences, modern societies waste another vital evolutionary resource: shame. A reluctance to express, and to encourage expressions of, social disapproval deprives us of a powerful tool for the enforcement of behavioral norms.

That normative systems are hard to create but easy to destroy is not just a function of the entropy of norms. We are also largely ignorant of how advanced, "moralistic" cultures come into being in the first place, and we know little of how to restore them once they unravel. As previously noted, evolutionary psychology is stronger on function than provenance: it is on its surest footing when offering explanations after the fact, but sometimes falters in reconstructing the sequence of change as it actually unfolded.⁵³ Thus, evolutionary theory tells us why some complex secondary structures—institutions, moral conventions, and cultural tastes—make evolutionary sense, and how they work, but has less to say about how these elements arise and spread. Because we do not know how a particular set of normative conventions comes to be part of a cultural heritage, we are unsure of the measures necessary to call such conventions into being.

This analysis suggests that longstanding customs should be approached with the kind of cautious respect reserved for organic ecosystems in nature. This is not to suggest that all normative social conventions are good or worth preserving. But, to the extent that informal social understandings serve some constructive functions, those benefits may be irrevocably lost if the conventions are destroyed. Once norms erode or cultural life becomes demoralized, "renormalization" may be very difficult to achieve. Complex systems of social control—most notably those that tightly channel male and female sexuality in socially constructive ways⁵⁴—are particularly vulnerable to subversion by factors, such as economic incentives or weakened legal sanctions, that lower the cost of flouting social taboos. But once cultural and moral expectations have eroded, they cannot easily be resurrected by legal sanctions or reverse economic incentives. This suggests that the efficacy of social policy interventions may be asym-

L Rev at 1027 n 88 (cited in note 21). See also Massaro, 89 Mich L Rev at 1901-02 n 99. Wright implies that shame and guilt are evolved components of our psychology that often work in concert to reinforce behaviors conducive to group well-being (see, for example, pp 206-07).

⁵³ See text accompanying notes 19-20.

⁵⁴ See text accompanying notes 62-65.

metrical: they are more effective in loosening traditional behavioral restrictions than in promoting social patterns that depend on personal discipline and restraint. This "one-way ratchet" effect should make us wary of policy choices that provide even relatively minor incentives, or remove existing disincentives, to engage in culturally subversive behaviors.

B. Sociobiology and Social Policy

The foregoing insights have potential application to a variety of social issues. To list some examples: It makes sense, for instance, to expect that prevailing norms will be of critical importance in molding the behavior of the young. The sensitivity of children to moral climate validates parents' extreme concerns about examples set by peers, the media, and schools, as well as parents' reluctance to expose their children to "alternative lifestyles" that they deem undesirable, even if those lifestyles are not illegal.⁵⁵ An understanding of evolved psychology is also consistent with the documented failure of contraceptive availability and sex education to alter teenagers' sexual conduct or prevent teen pregnancy.⁵⁶ Teen sexual habits are more likely to be influenced by community norms and sanctions for misbehavior than by technical information or appeals to rational self-interest. Sociobiology also brings some illuminating perspectives to family issues and welfare policy, which are discussed in the following Parts.

1. Family and welfare: the myth of reverse causation.

a. The norms of sexual behavior and the enforcement of monogamy. Sex is one area of human behavior in which social norms abound. Norms of sexual behavior are a central concern of moral codes in societies the world over. In light of Wright's analysis, the development of sexual morality is only to be expected.

⁵⁵ Parental sensitivity to the prevalence of norms may also have something to do with "white flight" from communities and school districts with large numbers of poor minority students. Because the tendency is to attribute such patterns to racial prejudice, very little attention has been paid to middle-class parental responses to real or perceived differences in attitudes toward marriage, out-of-wedlock childbearing, work, and educational achievement among racial and social groups as factors influencing where children are sent to school. See, for example, Mickey Kaus, *The End of Equality* 105-09 (BasicBooks 1992).

⁵⁶ See, for example, Barbara Dafoe Whitehead, *The Failure of Sex Education*, *Atlantic Monthly* 55 (Oct 1994). See also Patricia L. East, Marianne E. Felice, and Maria C. Morgan, *Sisters' and Girlfriends' Sexual and Childbearing Behavior: Effects on Early Adolescent Girls' Sexual Outcomes*, 55 *J Marriage & Family* 953, 953-62 (1993).

Evolution has endowed the human animal with the flexibility to elect among several possible reproductive strategies, depending on surrounding social and environmental cues. These run the gamut from fleeting and exploitative encounters to enduring relationships of fidelity and mutual aid.⁵⁷

Sexual morality is a way to control the choice of reproductive strategy. As such, it can be thought of as an attempt to solve one type of (extremely important) collective action problem—that of creating stable cooperative alliances between men and women. These cooperative alliances generate surplus value that is primarily applied to the fitness-enhancing task of providing for the next generation, but can also benefit the participants in ways that are only tenuously related to the reproductive task. In almost every society, these alliances take the form of marriage (p 93). Wherever it appears, marriage is viewed primarily as an arrangement for the rearing of children, for insuring the economic security of dependent adults (usually female adults), and for stabilizing alliances across kinship groups. By its nature, marriage is an institution that asks persons to treat strangers (that is, spouses) like kin by viewing the interests of the spouse (and the spouse's relatives) as quite intimately aligned with one's own.⁵⁸ On this view, it is not surprising that marriage is customarily hedged around by strong normative expectations, which are often enforced by social firepower.⁵⁹

Wright devotes a great deal of attention to the regulation of sexual conduct,⁶⁰ with special attention to the western convention of lifelong monogamy (pp 93-107, 128-51). Wright recognizes

⁵⁷ According to sociobiologists and animal ethologists, both males and females may engage in exploitative sexual behaviors. A fair explication of the varieties of sexual strategies, and the circumstances that are thought to elicit them, is too complicated to provide here. The basic idea is that female strategies are focused on trying to extract maximal male investment in offspring, while male strategies are designed to provide no more than the minimum investment necessary to insure viable and successful offspring, and to avoid investing in other men's children.

⁵⁸ That aspiration and goal are captured in the Zulu expression: "They are our enemies, and so we marry them." See David W. Murray, *Poor Suffering Bastards: An Anthropologist Looks at Illegitimacy*, 68 *Policy Rev* 9, 9 (Spring 1994). Marriage establishes an elaborate set of conventions by which an extended set of obligations normally reserved for kin are extended to nonkin through the in-law relationship.

⁵⁹ In the absence of group regulation, one-on-one cooperative endeavors between nonkin are necessarily fragile and contingent. One would not expect marriage, if treated as a purely private arrangement dependent solely on individual sentiments, to be a particularly stable or long-lived institution. Hence the need for legal recognition and social control.

⁶⁰ See the discussion of sexual norms at text accompanying notes 64-65.

that simple monogamy—a pattern of lifelong sexual pairing of one man with one woman—is, in an important sense, “unnatural” for both partners. That is not just because the conventions of matrimony require nonkin to be treated as kin, but also because men and women—although for somewhat different reasons—are programmed for rather less permanent sexual alliances (pp 135-41). Sociobiologists have speculated that dominant males in the ancestral environment could best increase their reproductive chances (that is, leave the maximum number of viable offspring) by engaging in a strategy of polygamy (monopolizing several women at once) or “serial monogamy” (monopolizing the reproductive resources of a series of young women) (pp 101-02). For this reason, men have evolved to feel attraction to young and fertile women, and to tire of a woman as she and her children grow older (pp 65, 87). Thus, if allowed to do so, men will tend to shed their mates after a decent (or not so decent) interval and take up with a succession of younger women. That choice will be particularly common among high-status males, who have the capacity to attract women and to support large numbers of children (pp 87, 95-99). Wright also explains why serial monogamy may not be such a bad “fitness” deal for women, although it may engender some unhappiness for individuals. Some women may do better with the partial attention of a high-status male than with the undivided devotion of one who “shares her ranking” (pp 96-99).

Like other cooperative behaviors, monogamy is easily subverted if not generally practiced. It is not clear how lifelong monogamy came to be adopted as the cultural norm of marriage in western society, or how monogamy of whatever duration actually arose from the haphazard and polygamous forms that preceded it—forms that were less dependent on mutual forbearance and trust. The question of how monogamy came to replace alternative reproductive strategies is one example of the more general evolutionary question of how cooperative or altruistic behaviors emerge from patterns of individual selfishness.⁶¹

Another unanswered question is whether lifelong monogamy, as opposed to a more temporary pairing, is strictly fitness-maximizing—that is, whether it is more conducive to reproductive success than less constraining alternatives. Temporary monogamy has obvious evolutionary advantages over more random mating (because pairing ensures male investment and identification

⁶¹See note 15 and accompanying text.

of paternity), but the reproductive superiority of lifelong monogamy is less clear. As the dynamics of cultural evolution reveal, however, not all robust cultural norms have the direct effect of maximizing reproductive fitness.⁶²

Whether or not strict monogamy enhances the *number* and *survival* of offspring over generations, Wright implies that, at least in modern industrial societies, monogamous arrangements enhance the well-being of participants and progeny in many ways. Wright is forthright in his judgment of modern marital instability: “[W]henever marital institutions . . . are allowed to dissolve, so that divorce and unwed motherhood are rampant . . . there will ensue a massive waste of the most precious evolutionary resource: love” (p 104). Wright’s discussion suggests that the resource of love to which he refers is the “male parental investment” in the children that a man can confidently claim as his own. Marriage harnesses the personal and material resources of male parents, putting them at the disposal of women and children over the long term. That investment generates not just the benefits of personal attention and greater material well-being, but also the protections and advantages that flow from extended kinship alliances.

Recent research buttresses Wright’s observation that marriage generates wealth and surplus value. It does so by increas-

⁶² The question is complicated. It is possible that lifelong monogamy, like many cultural norms of advanced societies, may enhance indices of well-being of women and children that are ancestrally associated with reproductive success without actually increasing fecundity and survival rates under modern conditions. See the general discussion of fitness effect of cultural conventions at text accompanying notes 33-35.

Alternatively, strict monogamy, although apparently restrictive of individual reproductive opportunities (at least for males), may result in long-term, systematic benefits of stability and family cohesion that ultimately enhance the reproductive prospects of most members of the group. Male parental investment becomes less valuable to progeny as they become more independent, but parental support has proved valuable over longer and longer periods in modern societies. Moreover, one could speculate that the effect of diminishing returns from lifelong monogamy on the well-being of children may be counterbalanced by the difficulty of self-regulating a system of serial monogamy, which may result in severe disinvestment and premature abandonment of some women and children before the optimal male parental investment period has elapsed.

Although Wright does not offer a comprehensive theory of the reproductive-fitness effects of lifelong monogamy, he speculates on one fitness-enhancing rationale for the rule. He observes that polygamy “has tended to disappear in response to egalitarian values”—that is, values of political equality among men (p 98). A society in which high-status males monopolize desirable women is one in which the elite governing class must contend with “gobs of sex-starved and childless men with at least a modicum of political power” (p 98). Like “one-man-one-vote,” the principle of “one-man-one-wife” promotes social and political stability, which may enhance both the well-being and reproductive success of all participants (p 99).

ing the adult partners' overall efforts, and by enhancing their productivity through mutual aid and assistance. The magnitude of the value added is partly a function of the length and stability of the commitment. Moreover, stable marriages can effect a relative redistribution of resources from men to women, because women are not deprived of the continuing material benefits of the marriage when their reproductive years are over.⁶³

Wright is quite clear that marriage generates social "surplus capital" only at the cost of heroic restraints on individual preference and the ruthless suppression of predatory sexuality (pp 142-48). Sociobiology helps explain why man continues to retain impulses toward sexual exploitation and predation, which cultures then work to suppress. Short-term selfish strategies, in sexual interactions as in other areas, can be genetically adaptive in some circumstances, and may represent the best individual strategy in the absence of the highly developed social structures we associate with "advanced civilization." But the aggregate effect of widespread adoption of such selfish strategies is a net loss for the group and its members.⁶⁴

The problem is how to force the election of sexual cooperation over sexual predation—especially among males. The key, Wright suggests, lies in something akin to traditional sexual morality (pp 142-46). As with other cooperative strategies, creating a stable system of sexual restraint depends on coordination, since restraint is the choice of dupes when everyone else is practicing

⁶³ Professor Linda Waite has collected studies showing that married persons live longer, have lower rates of risk-taking behaviors (including reckless driving and criminal activity), and suffer less from alcoholism and drug addiction. Married couples also have higher rates of savings, and lower consumption levels, than single persons of the same income. Married men have higher hourly wages than single men (although married women suffer a "child penalty" in earnings). Compared to children in single-parent and step-parent families, children in two-parent families also do better in school, have lower rates of teen pregnancy, have fewer emotional problems, and manifest less delinquent and criminal behavior. These differences remain significant even when children are matched for family income. Linda J. Waite, *Does Marriage Matter?* 32 *Demography* 483 (1995). See also Sara McLanahan and Gary Sandefur, *Growing Up with a Single Parent: What Hurts, What Helps* 19-63 (Harvard 1994); Shoshana Grossbard-Schechtman, *On the Economics of Marriage: A Theory of Marriage, Labor, and Divorce* 25-83 (Westview 1993) (discussing cooperative exchanges between spouses).

⁶⁴ In the same vein, Wright explains in a recent article that impulsive, risky, and violent behavior may have evolved as the most rational strategy for males of "low status"—sometimes referred to as the "underclass"—in an environment where the legitimate rewards of socially sanctioned forms of status are largely off limits. Nevertheless, everyone would probably be better off if the underclass ceased to exist and some way were found to integrate extremely low-status males into conventional social settings. Wright, *Biology of Violence*, *New Yorker* at 75, 77 (cited in note 4).

rape or promiscuity. Sexual morality is designed to perform that coordination function. And that morality must be enforced in a manner that is urgent enough to deter the satisfaction of other powerful preferences and desires. As Wright remarks, “[o]nce you have seen the odds against lifelong monogamous marriage, especially in an economically stratified society—in other words, once you have seen human nature—it is hard to imagine anything short of harsh repression preserving the institution” (p 142).

This observation explains Wright’s preoccupation with Victorian sexual morality, which was both highly restrictive and highly effective. Why was serial monogamy (other than following the death of a partner) such a rarity in Victorian England? How were so many induced to behave “against nature?” The Victorians clearly knew what they were up against, for they enforced strict monogamy with unforgiving ferocity, meeting the greatest threat to lasting marriage—“the temptation of aging, affluent, or high-status men to desert their wives for a younger model”—with “great social firepower” (pp 142-43). Open adulterers of both sexes drew strong censure and suffered global and enduring consequences. To some extent, this drove extramarital adventures underground and engendered a great deal of hypocrisy. For better or worse, however, those infidelities rarely threatened the dissolution of a marriage, so families commonly endured for a lifetime.

Wright forthrightly acknowledges that the Victorians paid a great price for their way of life in repressed sexuality, the double standard, and unacknowledged exploitation and hypocrisy.⁶⁵ Although Wright suggests that there might be alternative systems that “succeed in sustaining monogamous marriage” without replicating every feature of Victorianism, he asserts that any effective system would “entail real costs” (p 145). We can infer from Wright’s discussion that he believes that any society that reliably curbed the expression of elemental sexual urges would have to share certain features: it likely would be intensely “moral” in character, it would rely heavily on the sense of shame and the fear of loss of social standing (with all its attendant consequences), and it would bring social firepower to bear—in the form of ostracism, stigmatization, scorn, indignation, disapproval, and shunning—on those who broke the rules.

One implication of Wright’s analysis is that, in the absence of strong social norms favoring marriage and disfavoring divorce,

⁶⁵ Wright observes that “a lot of hypocrisy may be a sign of great morality” (p 223).

economic factors will have only marginal effects on these practices. Men are programmed to maximize sexual opportunity and to engage in serial monogamy. To be sure, they also respond to economic incentives (since wealth can have fitness-enhancing effects). However, the prospect of economic loss without the backup of moral censure is unlikely to bring about the desired result. Economic self-interest can only partially counteract the powerful attractions of sexual variety. Our biologically programmed responsiveness to moral disapproval and social disgrace means that those factors are likely to be more powerful regulators of sexual behavior than the aversion to an economic penalty.

This implies that bringing back alimony and dramatically strengthening child-support laws would not have a significant impact on the widespread practice of serial monogamy.⁶⁶ Although the cost to men who abandon dependent families would rise significantly, men would probably continue to divorce and remarry somewhat younger women at high rates. In any event, marital practices would probably not return to those that prevailed before the changes in social mores that brought about the "divorce revolution."⁶⁷ Sociobiology provides at least some reason

⁶⁶ Currently, about 50 percent of marriages end in divorce. See Council on Families in America, *Marriage in America: A Report to the Nation* (Institute for American Values 1995). More than three-fourths of divorced persons remarry, but men remarry more frequently than women, and 65 percent of men who remarry choose younger women. The average age difference is 4.7 years overall, and 6.8 years for divorced men marrying never-married women. Department of Health and Human Services, *Vital and Health Statistics: Remarriages and Subsequent Divorces* (US GPO 1990).

⁶⁷ The one-way ratchet effect of economic factors on social mores discussed above would predict that, although tinkering with economic incentives probably will not stabilize families once they are in disarray, economic change nevertheless may have contributed significantly to the rise in divorce rates, and the decline in marriage rates, over the past fifty years. See, for example, U.S. House of Representatives, Committee on Ways and Means, 1994 Green Book, 103d Cong, 2d Sess 1.109 ("*Green Book*") (marriage and divorce rates from 1950 to 1992).

In general, the economic emancipation of women has probably decreased women's willingness to marry or to stay in oppressive marriages by making it easier for women to support themselves and their children without a man's help. Men may have become less willing to marry and stay married because their wives' earning power deprives them of their leverage as the sole breadwinner, or because their absence would not leave their offspring destitute. As various forms of family breakdown have become more common, social disapproval has lessened, accelerating the trends. Large-scale social experiments in the 1970s, which found that providing a minimum guaranteed income increased the incidence of divorce, lend support to the conclusion that conditions that make women economically independent tend to accelerate family dissolution. See Robert Moffitt, *Incentives and Effects of the U.S. Welfare System: A Review*, 30 J Econ Literature 1, 27-31 (1992). For a trenchant discussion of these trends in the marriage rate, see Christopher Jencks, *The Homeless* 55-58 (Harvard 1994). See also Jencks, *Rethinking Social Policy: Race, Poverty, and the Underclass* 133-36 (Harvard 1992).

to believe that the only change that could effectively bring about a decline in the divorce rate would be a return to the kind social disapprobation that previously attended the breakup of a marriage. Reducing divorce calls for the application of greater social firepower.⁶⁸

b. Families, poverty, and welfare. Some critics of current welfare policy have claimed that the abandonment of the historical distinction between the deserving and undeserving poor,⁶⁹ and the failure to structure policy to reflect condemnation of out-of-wedlock childbearing and other forms of social deviancy,⁷⁰ have undermined the effectiveness of a range of antipoverty efforts. In general, however, welfare policy is an area in which analysts on both sides tend to misunderstand the effects of economic factors on behavior.

The majority of persons currently receiving Aid for Families with Dependent Children ("AFDC")⁷¹ are mothers who have nev-

⁶⁸ How this would actually work is suggested by a column Wright wrote to address Speaker of the House Newt Gingrich's exhortations to restore "family values" to the nation. After observing that Gingrich had divorced his first wife to marry a younger woman, Wright had the following to say on the "family value" of marital fidelity:

Only a few monogamous societies have bucked the odds—made lifelong marital commitment the standard. . . . How did they do it? Step one in the family values formula is to make divorce a scandal: to stigmatize men who leave their families. . . . Victorianism used one visceral male impulse (the extreme thirst for social status) to combat another one (the thirst for multiple mates); you could slake one thirst or the other, not both.

Thus, in a society with truly robust "family values," a man who traded in his wife for a younger model would stand roughly zero chance of retaining elective office. . . . Gingrich said that "[p]eople want to change, and the only way you get change is to vote Republican." Actually, the surest known way to get the change he's talking about is to vote against people like him.

Robert Wright, *The Gay Divorcé*, New Republic 6 (Dec 19, 1994).

⁶⁹ See, for example, Himmelfarb, *The De-Moralization of Society* at 242-43 (cited in note 46).

⁷⁰ See, for example, Myron Magnet, *The Dream and the Nightmare: The Sixties' Legacy in the Underclass* 140-42 (Murrow 1993). See also Robert J. Samuelson, *Welfare Can't Be Reformed*, Wash Post A21 (Mar 22, 1995) (arguing for a policy that "stigmatizes" unmarried parenthood as a way of reducing the incidence of welfare dependency); Richard Cohen, *A Baby and a Welfare Check*, Wash Post A23 (Mar 24, 1995) (arguing for a return to a moralistic reformulation of welfare policy that acknowledges that "[h]aving babies while on welfare is wrong"). But see Heidi Hartmann and Roberta Spalter-Roth, *Reducing Welfare's Stigma: Policies that Build Upon Commonalities Among Women*, 26 Conn L Rev 901, 904 (1994) (arguing for destigmatization of welfare and single motherhood). See also Martha A. Fineman, *The Neutered Mother, the Sexual Family, and Other Twentieth Century Tragedies* 114-18 (Routledge 1995).

⁷¹ AFDC provides cash benefits to poor families with children in which one parent is

er been married.⁷² Recent debate has focused on how welfare programs can be manipulated to reduce the creation of single-parent families. It has been suggested that, by making an economic alliance with a man comparatively less attractive to a poor woman, cash welfare payments currently discourage marriage and encourage childbearing outside of marriage.⁷³ Even if we accept that welfare has indeed undermined traditional norms of marriage and family formation—a conclusion consistent with the peculiar vulnerability of such norms to subversion by outside interventions—it does not follow that proposed modifications in the program to make welfare less economically attractive—including limiting the duration of benefits, cutting benefits for additional children, and imposing strict work requirements⁷⁴—would reverse the declining marriage rates and rising out-of-wedlock birth rates that are correlated with swelling welfare rolls. Even cutting off benefits entirely probably would not effect a sudden change in behavior because an abrupt cessation of benefits would not work an immediate revolution in the sense of what is morally and socially acceptable among the population that otherwise would be eligible for AFDC.⁷⁵

unemployed or absent due to death, disability, or abandonment. 42 USC §§ 601-07 (1988).

⁷² See *Green Book* at 401 (cited in note 67).

⁷³ See, for example, Charles Murray, *Losing Ground: American Social Policy, 1959-1980* 154-62 (BasicBooks 1984). See also note 67.

⁷⁴ See, for example, Will Marshall and Elaine Ciulla Kamarck, *Replacing Welfare with Work*, in Will Marshall and Martin Schram, eds, *Mandate for Change* 217, 226-36 (Berkeley 1993); Lucy A. Williams, *The Ideology of Division: Behavior Modification Welfare Reform Proposals*, 102 Yale L J 719, 726-41 (1992) (describing recent modifications in AFDC requirements at the state level). See also Personal Responsibility Act, HR 4, 104th Cong, 1st Sess (Jan 4, 1995) (recent legislative proposal for placing age and time limits and imposing strict work requirements for welfare eligibility).

⁷⁵ Indeed, the available data is consistent with this prediction. It is a well known staple of the social science literature that out-of-wedlock birth rates have soared over the past twenty-five years, and have remained high despite a stagnation or reduction in the buying power of AFDC cash benefits. Also, illegitimacy rates across states do not correlate with state-by-state variations in welfare benefit levels. See, for example, Theodore R. Marmor, Jerry L. Mashaw, and Philip L. Harvey, *America's Misunderstood Welfare States: Persistent Myths, Enduring Realities* 110-11 (BasicBooks 1990) (data showing lack of correlation). See also Charles Murray, *No, Welfare Isn't Really the Problem*, 84 Pub Interest 3, 7-11 (Summer 1986) (arguing that changes in welfare policy are just one of many factors affecting formation of character among young poor people); Charles Murray, *Does Welfare Bring More Babies?*, 115 Pub Interest 17, 20-30 (Spring 1994) (arguing that sudden increase in welfare benefits started a trend toward illegitimacy that took on a life of its own when the value of benefits began to decline); Charles Murray, *What to Do About Welfare*, 98 Commentary 26, 31-32 (Dec 1994) (arguing that a revival in moral sanctions against illegitimacy is needed to make economic sanctions work).

Likewise, one would not predict that improvements in the economic prospects of inner-city men would effectively reverse the decades-long decline in marriage rates and skyrocketing out-of-wedlock birth rates in inner city communities.⁷⁶ Sociobiological analysis suggests that significant numbers of people are likely to continue the chaotic social and sexual patterns associated with poor economic prospects in the absence of restigmatization of those behaviors. Absent fear of the disapproval of relatives and friends and loss of social standing, poor women will not behave "against nature" and forgo the natural pleasures of motherhood,⁷⁷ and men will not accept the constraints

⁷⁶ See, for example, William Julius Wilson, *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy* (Chicago 1987). Wilson has championed the view that the disappearance of jobs for unskilled men from urban areas has been the most important factor in the growth of the so-called "urban underclass," which is characterized, among other things, by inordinately high rates of out-of-wedlock childbearing. *Id.* at 73. Even if this were so, however, a dramatic increase in employment opportunities would not necessarily reverse these trends.

Wright echoes Wilson's theme by suggesting that one of the best ways to promote and strengthen marriage is to improve the financial prospects of poor men and to distribute income more equally (pp 105-06). He observes that a woman's choice of a mate is responsive to a man's social status, which in turn is a function of the economic resources he can command (pp 105-06). Wright is surely correct that economic opportunities lend stability to marriages and buttress existing cultural traditions that view marriage as the universal norm. But the implications of Wright's analysis, properly understood, belie his own suggestion that economic factors would effect a decisive reversal of current patterns of paternal abandonment in economically depressed communities. Improvements in the job market alone would probably not suffice to restore a strong social norm in favor of marriage.

⁷⁷ As Charles Murray has astutely commented:

There is no mystery about why a young woman might want to have a baby. Nature has made her physically ready for intercourse and pregnancy, and she may well believe that a baby will bring her love and fulfillment. One might rather ask: Why have so many affluent young women been successfully persuaded to wait until they have a husband? (Illegitimacy rates in affluent communities are extremely low.)

Murray, 84 *Pub Interest* at 4 (cited in note 75).

Murray is correct that rates of out-of-wedlock childbearing differ dramatically by race and social class. Women of all ages from middle class and affluent families are much less likely than those from less affluent backgrounds to get pregnant out of wedlock and to bear the child. See, for example, Department of Commerce, Ser No P20-478, *Current Population Reports: Marital Status and Living Arrangements: March 1993* 36-57 (US GPO 1994) (comparing illegitimacy rates by income and education). See also Larry Bumpass and Sara McLanahan, *Unmarried Motherhood: Recent Trends, Composition, and Black-White Differences*, 26 *Demography* 279, 281, 283-84 (1989) (focusing on education); Sondra L. Hofferth, *Teenage Pregnancy and Its Resolution*, in Sandra L. Hofferth and Cheryl D. Hayes, eds, *Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing* 78, 91 (National Academy 1987); Charles F. Westoff, *Fertility in the United States*, 234 *Science* 554, 557 (1986).

and responsibilities of marriage. Thus, although desubsidization of antisocial behaviors, such as out-of-wedlock childbearing, may be *necessary* to a significant reduction in these behaviors among the welfare population, the mere reduction in financial support may not in itself suffice.⁷⁸

2. Is "renormalization" possible?

Because the process by which norms take hold is mysterious,⁷⁹ the best route to renormalization is somewhat obscure. An analysis of prestige systems suggests, however, that restoring lost norms, or creating altogether new ones, must depend heavily on wielding the techniques of social censure that Wright describes. The key is to use "status hunger" to persuade people to behave "against nature." If strict monogamy on the patriarchal model can be enforced with some success by this method, then it

Is the economic opportunity cost of early childbearing the key factor that keeps middle and upper middle class teenagers from bearing illegitimate children, or are cultural expectations and moral standards more important? That question is difficult to answer. One hint that cultural norms play a more significant role is that black teenagers are far more likely than whites to bear an illegitimate child, even after controlling for family income and education. See Bumpass and McLanahan, 26 *Demography* at 283. Given the prevalence of illegitimacy in the black community—68 percent of black children, as compared to 22 percent of white children, are born out of wedlock—blacks may be more tolerant of out-of-wedlock childbearing than whites and that toleration may in turn influence the frequency of the behavior. See Charles Murray, *The Coming White Underclass*, Wall St J C4 (Oct 29, 1993) (citing statistics and noting that white rates of illegitimacy have climbed dramatically in recent years).

⁷⁸ As already discussed, the maintenance and effective enforcement of constructive behavioral norms depends on a critical mass of persons who live by those norms. That observation confirms the view, advanced by William Julius Wilson among others, that circumstances that isolate the poor geographically and socially—as in inner city minority ghettos—will exacerbate behavioral problems associated with poverty. See Wilson, *The Truly Disadvantaged* at 22 (cited in note 76). The success of programs that disperse the poor and expose them to middle-class expectations also validates the insight that "numbers matter" in influencing behaviors that make for educational and economic success.

The Gautreaux housing program is a case in point. Under the program, which was created in response to lawsuits filed by public housing tenants in Chicago, applicants for public housing are provided rental vouchers that can be used in middle class Chicago neighborhoods and suburbs. See *Hills v Gautreaux*, 425 US 284 (1975). Studies of participant families show that their children have higher achievement levels, lower dropout rates, higher college attendance, and better work records than children of similar families living in areas with greater concentrations of poverty. See James E. Rosenbaum, *Black Pioneers—Do Their Moves to the Suburbs Increase Economic Opportunity for Mothers and Children?*, 2 *Housing Policy Debate* 1179, 1193-1203 (1991). See also James E. Rosenbaum and Susan J. Popkin, *Economic and Social Impacts of Housing Integration* 9-33 (Northwestern 1990); Michael H. Schill, *Deconcentrating the Inner City Poor*, 67 *Chi Kent L Rev* 795, 819-21 (1991) (describing the Gautreaux program).

⁷⁹ See text accompanying notes 53-54.

is fair to ask whether other similarly restrictive social norms could take hold by the same route.

There are some areas in which observable shifts in norms regarding acceptable conduct have played some role in bringing about behavioral changes. In each of these cases, the normative transformation has followed a heightened perception of the harms caused by the behavior. In each, there is reason to believe that the normative shift is an indispensable precondition for the observed change in conduct. One example is the signal decline in smoking over the past decade. That decline has been accompanied by a dramatic transformation in public and private attitudes toward smoking, and an increased willingness to exercise informal methods of social censure (such as segregation and exclusion).⁸⁰ Drunk driving is another area in which social disapproval has surged in recent years in response to a campaign to increase awareness of its deadly effects.⁸¹

To be sure, changes in attitudes in both these areas have been accompanied by tightening legal controls.⁸² Thus, the rela-

⁸⁰ See, for example, Jay Goldstein, *The Stigmatization of Smokers: An Empirical Investigation*, 21 J Drug Educ 167, 167-69 (Feb 1991); Richard Corliss, *What's All the Fuming About?* Time 65 (April 18, 1994) (describing society's informal campaign to "demonize smokers").

Lawrence Lessig has identified three phases of social attitudes toward smoking. Initially, the regulation of smoking was driven largely by concern about the habit's spread among women and youth. A "second wave" of antismoking regulation was triggered by the 1964 Surgeon General's Report warning of dangers to health. The technocratic, utilitarian appeals to self-interest in turn generated antismoking sentiment with "a distinct moral tone." The smoker was considered a social pariah, or "weak, reckless, [and] without self control." See Lessig, 62 U Chi L Rev at 1025-29 (cited in note 49). Smoking "was banished from many social circles" and smokers felt "condemned, isolated, disenfranchised, alienated." See id at 1029, citing Joseph R. Gusfield, *The Social Symbolism of Smoking and Health*, in Robert L. Rabin and Stephen D. Sugarman, eds, *Smoking Policy: Law, Politics, and Culture* 49, 65 (Oxford 1993), and Robert A. Kagan and Jerome H. Skolnick, *Banning Smoking: Compliance Without Enforcement*, in Robert L. Rabin and Stephen D. Sugarman, eds, *Smoking Policy: Law, Politics, and Culture* 69, 79 (Oxford 1993). What is interesting in the smoking story is the sequence of progression from scientific insight into concrete harms to the adoption and enforcement of moralistic norms. The mere recognition that smoking was harmful was not in itself enough to turn people away from the habit. Rather, the decline of smoking had to await the stigmatization of the smoker.

⁸¹ See, for example, James B. Jacobs, *Drunk Driving: An American Dilemma* xv-xvii, 18-19 (Chicago 1989) (describing efforts of groups such as Mothers Against Drunk Driving, and noting continuing decline in alcohol-related auto fatalities); Insurance Information Institute, *Insurance Issues Update: Drunk Driving and Liquor Liability* 7-11 (Oct 1995) (describing grass roots efforts and their success in bringing about legal reform).

⁸² By 1986, forty-two states had imposed legislative restrictions on smoking in public places. Fred Harmeister, *Smoking Policies: An Analysis of School District Obligation and Liability*, 61 Educ L Rep 789, 793 (1990), citing Department of Health and Human Services, *Smoking and Health: A National Status Report* 64 (US GPO 2d ed 1990). See also Christopher John Farley, *The Butt Stops Here*, Time 58, 58-62 (Apr 18, 1994) (examining

tive contributions of legal constraints and social disapproval are difficult to sort out. Even if the law makes a significant contribution, however, it is unlikely that the practices would have declined so significantly without a shift in attitudes and the willingness of a critical mass of the public to act informally on those attitudes. Whether legal change is a cause or an effect of "normalization" doesn't matter: the point is that the magnitude of the change correlates with the existence of the norm.

Another example of the efficacy of informal responses to private behavior is provided by the social firepower brought to bear, at educational institutions and elsewhere, on remarks deemed offensive to members of minority ethnic and racial groups.⁸³ The vehement critical reaction generated by suspect statements represents an attempt to stigmatize expressions of racial prejudice or hostility in public discourse. Critical remarks directed at ethnic groups could be regarded as manifestations of the "natural" tendency to favor persons from one's own ethnic group. Those tendencies can be most effectively held in check by making them taboo.⁸⁴

The areas of success for public "moralization" of private conduct are marked by a high degree of consensus on the undesir-

the antismoking movement, and the resulting new restrictions and regulations cracking down on smoking).

Drunk driving laws have likewise been tightened in the 1990s. See, for example, Va Code § 18.2-266 (Michie 1988 & Supp 1995) (lowering the maximum blood alcohol level from 0.10 to 0.08); Cal Veh Code § 23152 (West 1985 & Supp 1995) (same); Mass Ann Laws ch 90, §§ 24, 24p (Law Co-op 1994 & Supp 1995) (lowering the maximum blood alcohol level to 0.02 for people under 21); Tenn Code Ann § 55-10-415 (1993) (same); Cal Veh Code § 23136 (West Supp 1995) (lowering the maximum blood alcohol level to 0.01 for people under 21).

⁸³ The recent firestorm of protest in response to public statements by the president of Rutgers University concerning the innate intelligence of minority students represents an example of a public shaming that bears a striking resemblance to Wright's account of the social convulsions that greeted reports of the adultery of a prominent Victorian physician (p 143). See *Rutgers Chief Apologizes for Remark*, Wash Post A14 (Feb 2, 1995). Such displays are clearly meant to warn others. After so public a humiliation, backed up by the widely publicized threat of the loss of livelihood, other university officials will hardly feel free to engage in similar performances. See Dale Russakoff and Malcolm Gladwell, *Rutgers Board Rejects Calls to Fire President*, Wash Post A3 (Feb 11, 1995).

⁸⁴ See Wolfgang Tönniesmann, *Group Identification and Political Socialization*, in Vernon Reynolds, Vincent Falger, and Ian Vine, eds, *The Sociobiology of Ethnocentrism* 175, 180-81 (Georgia 1987) (discussing theories of the adaptive function of racial and ethnic preferences); Pierre L. Vanden Berghe, *The Ethnic Phenomenon* 35 (Elsevier 1981) (discussing evolutionary roots of ethnocentrism). See also Kitcher, *Vaulting Ambition* at 252-56 (cited in note 28) (discussing ethnocentrism and racism). See generally Richard Bernstein, *Dictatorship of Virtue: Multiculturalism and the Battle for America's Future* (Knopf 1994); Dinesh D'Souza, *Illiberal Education: The Politics of Race and Sex on Campus* (Free Press 1991).

ability of the conduct at issue. That consensus generates a willingness to prescribe standards generally, rather than to leave particular conduct to the "relativism" of individual taste, preference, or judgment. Such "universality" in turn gives rise to a willingness to view conduct in moralistic terms, which enhances the acceptability of public expressions of moral disapproval and the use of social firepower to curb the behavior.

Drunk driving and smoking may be particularly amenable to this process because they represent fairly discrete forms of social behavior, with relatively narrow implications for other areas of social life. Moreover, the harm to self and others, the costs to society, and the relative unimportance of the interests vindicated by the behaviors are not seriously contested. These factors make it possible to achieve a relatively strong—albeit imperfect⁸⁵—social consensus that private pressure is an appropriate way to deal with these issues.

3. Genes beating genes: feminism and the myth of the nurturing male.

The picture of human psychology that emerges from the study of evolution suggests that projects for social change have the greatest chance of success if framed as attempts to create norms of acceptable or commendable behavior. Changing norms will likely prove more important than effecting purely external or structural changes in institutions on the one hand, or transforming individual personality or fundamental preference structures on the other. Rather than justifying the ends to which the techniques of social control can be applied, these insights invite us to view the "moralization" of conduct as a method that can be put to many uses.

These observations are applicable to a range of social issues, from drunk driving to parenting to teen pregnancy. They also have implications for the common feminist aspiration of greater equality for the sexes inside and outside of marriage. If conventional monogamy can be enforced "against nature," why not the feminist ideal? If civilization exists to frustrate natural preferences, it could as well be feminist civilization as any other. The price

⁸⁵ For example, the federal government still spends millions of dollars a year on tobacco-related subsidies and promotion. See Testimony of Raymond L. Woosley, Representative of the Coalition on Smoking OR Health, before House Committee on Appropriations, Subcommittee on Agriculture, Rural Development, and Related Agencies (Apr 3, 1995) (on file with U Chi L Rev).

for sexual equality may be eternal vigilance, but the price of traditional morality is the same. The fact that minimizing role differentiation and achieving greater sexual equality will not be achieved effortlessly, will require exercising social control, and might thwart the satisfaction of some individual desires,⁸⁶ is not telling: desire frustration and intrusive social pressure are the stock in trade of the gene-beating-gene game. Victorian England fought against the impulse to serial monogamy and the desire for sexual variety; feminism fights against the impulse to male domination and exploitation of women.

From the sociobiological perspective, however, the shift in social customs necessary to achieve greater sexual equality would have the best chance of catching on if backed by the kind of social firepower that was used to enforce Victorian monogamy. The success of feminist ideals is likely to depend on attaining consensus and mustering social coordination to define clear norms for behavior.

A corollary is that the most efficacious approach to the quest for greater sexual equality would not be one primarily directed at working a fundamental change in men's "primary" tastes and preferences. It would not necessarily have to await the emer-

⁸⁶ That there are innate average psychological differences between the sexes, beyond the very narrow ones of anatomy and reproductive function, is a fundamental tenet of sociobiology. It does not follow, however, that the *actual* patterns of observed behavior in individual men and women directly reflect those individuals' preferences. That point is important: relations between the sexes have traditionally ignored individual preferences in favor of conventional expectations for male and female activity. Social customs define proper masculine and feminine roles in ways that magnify or suppress "natural" individual variation and ignore personal inclination: societies do not customarily leave persons "on their own" to behave in as "masculine" or "feminine" a manner as they choose. See Mary Ann C. Case, *Disaggregating Gender from Sex and Orientation: The Effeminate Man in the Law and Feminist Jurisprudence*, 105 Yale L J 1, 33-34 (1995) (arguing that cultures aggressively encourage men to engage in behaviors considered masculine, and suppress those considered feminine).

This discussion reveals the limitations in Richard Epstein's views of the social and legal significance of evolved biological differences between the sexes. See Richard A. Epstein, *Two Challenges for Feminist Thought*, 18 Harv J L & Pub Policy 331 (1995); Richard A. Epstein, *Gender is For Nouns*, 41 DePaul L Rev 981 (1992); Richard A. Epstein, *The Authoritarian Impulse in Sex Discrimination Law: A Reply to Professors Abrams and Strauss*, 41 DePaul L Rev 1041 (1992). Epstein concludes that the law should neither disturb nor enforce existing patterns of sexual division of labor within marriage or within the workforce because they represent a perfect—and thus efficient—expression of individual preferences that are in turn critically influenced by nature. Epstein's discussion disregards the insights of cultural evolutionary theory by presupposing a universe made up solely of individual preferences and formal legal constraints. He ignores the existence of informal and autonomous cultural traditions, expectations, and practices. Such traditions are especially powerful in the area of sex roles and expectations, and as often as not stymie, rather than give vent to, personal desires.

gence of a greater impulse for “nurturing” or a diminished attraction to competition in the male population. Rather than focusing on such transformations of feelings or attitudes, the focus should be on cultivating social expectations that play to the sense of moral duty and social obligation. Such an approach would not rule out or deny culture’s ability to refine tastes or to exert some influence on primary preferences through upbringing or other measures. Rather, it would proceed from the recognition that it is easier to influence habits than to reorder desires. The most effective “nonsexist” upbringing may not consist of getting boys to play with dolls, but in defining proper conduct as fulfilling the duties of helpfulness, caring, and fairness, and in instilling egalitarian expectations concerning compliance with those duties.

There remains the issue of enforcement. The use of techniques of informal social control to advance feminist objectives has been embraced in some limited respects—as evidenced by growing public disapproval of sexual harassers⁸⁷ and of “deadbeat” dads who refuse to pay child support.⁸⁸ A more pervasive “moralization” of important aspects of the feminist project is likely to be met with ambivalence by feminists themselves and society at large. First, there is an irreducible tension between the radically transformative goals of sexual equality and the techniques of cultural conservation. Public shaming and stigmatization have acquired a bad name with feminists because they routinely have been used to control female sexuality and female social choice or to place women on the front lines of efforts to curb male sexuality.

Moreover, the feminist motto that “the personal is political,” was always meant to work both ways. Matters once consigned to “self-help” behind closed doors (that is, domestic violence) should be the subject of public regulation. At the same time, some mat-

⁸⁷ There is recent evidence of the willingness of private organizations to sanction employees suspected of engaging in sexual harassment, which may reflect the growing stigma attached to that practice. See, for example, Diana B. Henriques, *Sexual Harassment and a Chief Executive*, NY Times D1 (Mar 30, 1995) (Board of Directors of W.R. Grace & Company pressured CEO to resign after learning of multiple allegations of sexual harassment); Adam Bryant, *Career Horizons Chief Left in Sex-Harassment Dispute*, NY Times D3 (Apr 5, 1995) (CEO dismissal traced to allegations of sexual harassment). For Robert Wright’s thoughts on sexual harassment and feminism generally, see *Feminists*, New Republic at 34 (cited in note 4).

⁸⁸ See, for example, Gerald F. Seib, *Capital Journal*, Wall St J A22 (Oct 13, 1993) (reporting proposal to publish a list of “ten most wanted” deadbeat dads in New Jersey); Bob Hill, *Collection Firms Turning A Profit While Turning Up Deadbeat Parents*, Louisville Courier-Journal 1B (June 2, 1994) (collection agencies decide to publish names of deadbeat dads in Kentucky and Florida).

ters once regarded as the business of public or community concern ought to be left largely to personal choice. The problem is deciding how these conflicting impulses should be resolved in a particular case. Thus, on the one hand, feminists recognize that divisions of labor and allocations of responsibility within marriage have always been governed by powerful social conventions and have an important influence on the economic opportunities of men and women outside of marriage. On the other hand, there is ambivalence toward collective efforts to influence individual choice in these areas. That reluctance may stem from the recognition that the frustration of individual preferences was one of the cardinal evils of more traditional approaches to sex roles.⁸⁹

Conscious adoption of universal norms for private marital relations, and the use of social sanctions or censure to enforce expectations in those areas, would thus run contrary to recent cultural trends, championed by some feminists, that favor privacy and the hegemony of personal preference in matters of sexuality and intimate relationships. In sum, wariness toward the social regimentation of choices that touch on sex roles undermines the will to define unequivocal norms of behavior in this area and poses formidable obstacles to the mobilization of powers of social coordination to impose disgrace on those who would transgress feminist norms.

4. The waste of shame.

Beyond the specific obstacles to the “renormalization” of society—for health, egalitarian, or any other purposes—there are broader impediments to the effective enforcement of “correct” norms. To the extent that the efficacy of shaming and other methods of public social control has its biological roots in the strong desire for a “good name,” it depends on features of social life that were already on the wane in the Victorian era and are rarer still in advanced modern societies: a high degree of unanimity regarding norms of conduct and a scale of interaction that allows for effective long-term monitoring.⁹⁰ The atomization and mobility of modern life undercut the power of public humiliation and ostracism. Those who do not depend critically on the group for social, economic, or political support, or who can easily exit

⁸⁹ See note 86.

⁹⁰ Massaro, 89 *Mich L Rev* at 1916 (cited in note 52) (observing that “shaming as a form of social control occurs more often within small societies that are characterized by intimate face-to-face associations, interdependence, and cooperation”).

the social unit, will be less vulnerable to sanctions. Finally, social sanctions have always been least effective among the poor and socially marginal, who defy norms because "they have less 'social standing' to lose," and because families and institutions have generally done a less effective job of instilling in this group a fear of defying social expectations.⁹¹ The forces of socialization among the poor in modern industrial society have, if anything, declined, as evidenced by rising crime rates, drug abuse, illegitimacy, and other forms of "deviant" behavior.⁹² Moreover, a stress on duty, obligation, and sensitivity to social norms appears to go well against the thrust of modern child-rearing in all social classes. The trends suggest that traditional social sanctions will become progressively less effective as a means of enforcing norms within our society.

Ultimately, however, the most important obstacle to the renormalization of the content and form of social life is of a different order. Wright sees clearly that the self-understanding achieved through the painstaking elaboration of Darwin's insights is potentially devastating to the possibility for genuine moral life. As evolutionary theory shows, deception and incomplete awareness of motives are characteristic features of animal behavior. For example, behavior often covers its own tracks to help its perpetrator maintain credibility.⁹³ Evolution has not chosen to build in mechanisms for confronting every actor with the selfish wellsprings of seemingly altruistic or principled actions. Through science, however, man has arrived at that understanding of his deeds.

⁹¹ Id at 1917-19. See also id at 1898 ("[L]ike all penalties, shaming sanctions should deter most effectively those people who are most strongly socialized.")

⁹² See Himmelfarb, *The De-Moralization of Society* at 221-51 (cited in note 46) (citing statistics). See also Center on Hunger, Poverty and Nutrition Policy, *Statement on Key Welfare Reform Issues: The Empirical Evidence* 19-21 (Tufts 1995) (noting a substantial increase in number of single-parent families and out-of-wedlock births from 1982-92).

⁹³ According to Wright, successful social life is at bottom a game of attempting to induce trust and loyalty in our confreres and to detect untrustworthiness in others (p 198). The importance of how we appear places a premium on the ability for deception and self-deception. One would expect evolution to favor the ability to convince others that we are nicer and more reliable than we are. We would also expect a tendency to exaggerate our own power and importance, since people favor alliances with those high up on the status scale. The ability to deceive others as to our true intentions is thus an expected component of man's psychological makeup. The role of self-deception is less obvious. Wright explains that self-deception helps us mislead others about our good intentions, because conscious awareness of our own deceptions makes it more difficult to hide them (p 275). Our tendency to shade the truth about ourselves is "unconscious[]"—we are unaware of it, lest we give it away (p 275).

As Wright says, "No doctrine heightens one's consciousness of hidden selfishness more acutely than the new Darwinian paradigm. If you understand the doctrine, buy the doctrine, and apply the doctrine, you will spend your life in deep suspicion of your motives" (p 376). The original Victorian critics of Darwin may have been on to something in fearing that widening understanding of the science of human evolution would irretrievably erode the moral underpinnings of society as it had previously existed. Throughout history, morality has been grounded in faith and steadfast belief and not in pragmatic instrumentalism. It may be that, without that faith, the "magic of non-zero-sumness" (p 377) cannot hold out against free riders forever. The danger is that few will take seriously—or take seriously for very long—a system that seeks only to manipulate the human psyche for the greater good, especially where that system demands massive self-sacrifice. Thus, the price of self-understanding may be a higher degree of social disorder, as it becomes impossible to recapture all the evolutionary capital generated by a genuine faith in morality.

