

ETHICS

How Selfish Are People—Really?

by David Warsh

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For the Manager's Bookshelf

The *Evolution of Cooperation*, Robert Axelrod (New York: Basic Books, 1984), 241 pages, \$8.95.

Passions Within Reason: The Strategic Role of the Emotions, Robert H. Frank (New York: W.W. Norton & Company, 1988), 304 pages, \$19.95.

Events of the last ten years have sparked considerable controversy about the teaching and learning of ethics. But relatively little has been said concerning the deep-down underpinnings of our feelings about insider trading, malfeasance, and other betrayals of trust. This is too bad, because some important new thinking about our conception of ourselves as human beings is going on—thinking that so far has attracted only a small audience outside the technical precincts where it is taking place.

Two broad historical streams contribute to our ideas of right and wrong. One is the ancient tradition of religious, philosophical, and moral discourse, the province of the Golden Rule, the Ten Commandments, the Sermon on the Mount. Call this the humanist tradition. The other is the comparatively young tradition of the biological and social sciences. Chief among these is economics, with its central tenet that people, when they are able, tend to look out for themselves, choosing to maximize their advantage. Perhaps because it is cloaked in the mantle of science, the rhetoric and content of the latter tradition has become increasingly influential in our public life, often eclipsing religion and other traditional sources of instruction.

This eclipse began with two disarmingly simple sentences published by Adam Smith in *The Wealth of Nations* in 1776. “It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves not to their humanity but to their self-love and never talk to them of our own necessities but of their advantages,” Smith wrote. He then cobbled up his shrewd view of persons as calculating and self-interested into the familiar “invisible hand,” a sweeping vision of the interdependence of all markets everywhere. In Smith’s world, competition among persons who pursue their own interest promotes the general welfare of society more effectively than the efforts of any individual who might deliberately set out to promote it. Better to open a shop, then, or manufacture a product than to curse the darkness; the market will harmonize self-interests more surely than usury laws and regulatory bodies.

Some 80 years later, Charles Darwin offered a second and perhaps even more powerful justification for selfish behavior—his theory of natural selection. Aptly described as “survival of the fittest,” Darwin’s evolutionary account of biological diversity was a powerful story of adaptation through the continuous variation of traits and the selection of those that improved “fitness.” Differential reproduction and survival rates determined who survived and prospered and who didn’t. Those who were capable of “looking out for number one” in a biological sense would survive, while natural selection would quickly sweep away the less fit.

Darwin’s insights were immediately translated into a coarse social gospel that was itself quickly swept away. In a far more sophisticated and compelling form, his theory returned 100 years later as sociobiology. But in economics, the self-interest model of Adam Smith immediately acquired a deep hold on the popular imagination. Critics like Thorstein Veblen railed at the assumption of rational self-interest that was at the heart of the new conception—the view of man as “a lightning calculator of pleasures and pains, who oscillates like a homogenous globule of desire,” as Veblen snorted. But the successes of the new approach were very great. The universal “laws” of supply and demand could explain relative prices, differing wage rates, the composition of production: people really did build smaller houses if the price of fuel went up! And as economists refined their analyses, they extended their searchlight into new and unfamiliar areas.

For example, the American astronomer-turned-economist Simon Newcomb appalled outsiders in 1885 when he discussed the willingness of citizens to give dimes to the homeless in terms of the “demand for beggars,” no different in principle from children giving pennies to organ-grinders in exchange for their services. “Mendicity will exist according to the same laws that govern the

existence of other trades and occupations,” Newcomb wrote. And, after all, who could doubt that plentiful alms might have an effect on the size of the street population? The emotion of pity was thus recast as a taste for a warm glow that the consumer included in his or her utility function.

Indeed, a word must be said here about the “utility function” that economists build into their models of consumer behavior. The idea of a single mathematical function capable of expressing complex systems of psychological motivation is an old one in economics; at the hands of statisticians and theorists it has been refined to a remarkable extent as something called “subjective expected utility” theory. As Nobel laureate Herbert Simon has explained, the model assumes that decision makers contemplate, in one comprehensive view, everything that lies before them; that they understand the range of alternative choices open to them, not only at the moment but also in the future; that they understand the consequences of every possible choice; and that they have reconciled all their conflicting desires into a single undeviating principle designed to maximize their gain in any conceivable situation.

Emotions such as love, loyalty, and outrage, like a sense of fairness, have little or no place in most of today’s utility functions; a narrow selfishness is pervasive. Undoubtedly, as Simon says, this construction is one of the impressive intellectual achievements of the first half of the twentieth century; after all, he is one of its architects. It is an elegant machine for applying reason to problems of choice. Equally certainly, however (and again following Simon), this Olympian stereotype is also a wildly improbable account of how human beings actually operate, and a preoccupation with it is doing economists more harm than good.

Nevertheless, so powerful is the optimizing cost-benefit approach that economists have applied it to an ever-increasing range of human experience in the years since World War II, always with illuminating results. Education has become human capital. Job hunting is now a matter of search costs, tacit contracts, and a desire for leisure. Segregation laws are explained as a preference for discrimination and a willingness to pay the higher prices it entails. Love is an exchange relationship; decisions to bear children are analyzed as the purchase of “durable goods” of varying quality. Addiction, terrorism, arms control, the pace of scientific discovery—all have come under the economic magnifying glass.

Gary Becker, the foremost of the theorists who extended economic analysis into new areas, some years ago staked the claim that economics was the universal social science that could explain everything. George Stigler, himself an economics Nobel prizewinner, joked that he looked

forward to the day when there would be only two Nobel prizes, “one for economics, and one for fiction.”

At a certain point, all this rhetoric began to have real repercussions on everyday life. It’s one thing just to talk about the demand for beggars; it’s another actually to calculate the lifetime “consumption of pleasure” for an accident victim. One group has extended the calculus of costs and benefits into law, seeking to substitute them for “fuzzy” notions of fairness and justice. Another group has analyzed the motives of interest groups and laid the foundations for deregulation. Still another has discovered what it calls “the market for corporate control” and touched off the restructuring of American industry. “Public choice” economics has brought to bear a withering analysis of self-interest in political and bureaucratic behavior. Indeed, there is hardly an area into which the steady gaze of economics has failed to penetrate—all of it a vision built on a conception of man as inherently, relentlessly self-aggrandizing. Long before there was a “Me-decade,” academics had taught us to see ourselves as Economic Man.

But how realistic is this conception? How selfish are people, really? For the most part, humanists have simply ignored the spread of the new economic ideas. Instead, they have continued to talk about right and wrong in their accustomed frameworks—everything from sermons to novels to TV scripts. With the exception of the brilliant 30-year campaign against perfect rationality by Herbert Simon (and the guerrilla war of John Kenneth Galbraith), the major universities have produced no sustained criticism by economists of the central tenets of utility theory.

Psychologists and sociologists, confronted with ubiquitous theorizing about the economics of decisions they previously considered their domain, have been quick to complain of “economic imperialism” but rather slow to launch counterattacks. In the last few years, however, a small but growing number of persons has begun to come to grips with assumptions underlying economic interpretations of human nature. Robert B. Reich and Jane Mansbridge have grappled with the significance of the self-interest paradigm for political philosophy, for example. Howard Margolis and Amitai Etzioni have propounded theories of a dual human nature, competitive and altruistic by turns. Sometimes these disagreements come to the attention of outsiders in the press, like me, on the reasonable grounds that arguments over what constitutes human nature are too important to be left entirely to the experts.

There is, however, also a reexamination of rationality going on inside the economics business. This effort seeks not so much to overturn the idea of universal competition as to take it to a new and subtler level of understanding. If history is any guide, this is the development to watch, for as Paul Samuelson likes to say, economics will be changed by its friends, not its critics. Change there certainly is. Efforts to produce a theory of cooperation or of altruism suggest that much of the certitude about the nature of man that economists have advanced these last 100 years may have been misleading. There may be a good and logical foundation for doctrines of loyalty and sympathetic understanding after all.

Perhaps the best-known book to have opened up new avenues in the study of human behavior (at least along the economic axis) is Robert Axelrod's *The Evolution of Cooperation*. From its beginnings nine years ago as a report published in the *Journal of Conflict Resolution* on a computer tournament among diverse strategies, the argument grew to become a highly successful article in *Science* magazine (it won the Newcomb Cleveland prize in 1981), then a book published to wide acclaim in 1984, then a paperback issued a year later. Since then, it has been extensively discussed, taught in business schools, employed in arms limitation talks, consulted by labor negotiators.

Axelrod begins his analysis with the familiar prisoners' dilemma, an illustrative exercise that has been one of the dominating features of the landscape since game theory first brought considerations of strategic behavior to economic theory 40 years ago. In this situation, two prisoners are accused of a crime, which they did in fact commit. The jailers structure the payoffs to encourage each prisoner to confess: if neither prisoner confesses, both are given light jail sentences of, say, one year. If one prisoner confesses while the other remains silent, the first goes free while the other receives a heavy sentence of, say, ten years. If both prisoners confess, both get the heavy sentence, but with time off for good behavior—say, five years. Neither one knows what the other is going to do.

Clearly, each player does better by confessing than by remaining silent: if he confesses and his partner doesn't, he goes home immediately, while if he and his partner both confess, they each get five years instead of ten. So the question is, why would either ever stand pat and say nothing? How is it that cooperation ever gets started?

The answer, it turns out, lies in repeated play. Researchers before Axelrod had noted that the tendency to cooperate in prisoners' dilemma games increased dramatically whenever a player was paired repeatedly with the same partner. In these circumstances, a strategy called Tit for Tat quickly emerged: cooperate on the first move, then follow suit on each successive move; cooperate if your partner cooperates, defect if he defects, at least until the end of the game is in sight (then defect no matter what). This strategy has, of course, been known at least since Biblical times as "an eye for an eye, a tooth for a tooth."

What Axelrod forcefully contributed was the much-prized quality of robustness. He showed that Tit for Tat players in reiterated games would find each other and accumulate higher scores than meanies who always defected. He demonstrated how clusters of Tit for Tat players might invade an evolutionary game and win. He generalized the strategy and found that Tit for Tat worked well against a wide range of counterstrategies simulated on computers as well as in biological systems from bacteria to the most complex species. He published his computer tournament results and proofs of his theoretical propositions.

For nonexperts, the real persuasive power of Axelrod's argument lay in the variety of real world situations he found to which Tit for Tat applied. Businesses really did cooperate, extending each other reciprocal credit, until liquidation loomed. Then trust fell apart, and even old associates vied with each other to see who could file the quickest writs. Elected representatives really did learn to cooperate, for if they didn't learn to produce legislative results through logrolling, they weren't reelected.

But the dramatic centerpiece of Axelrod's book is a long analysis of the live-and-let-live system that evolved in between the large battles of World War I. Generals could force soldiers into battle whenever they could directly monitor their behavior; but when headquarters wasn't watching, the soldiers restored tacit truces. The key to the system was that soldiers in the trenches rarely moved; they got to know each other, and became, in essence, partners in an oft-repeated prisoners' dilemma game. When one player "defected," the common penalty response was an exchange of two-for-one or three-for-one. A French soldier explained, "We fire two shots for every one fired at us, but we never fire first." This brief historical excursion is a convincing proof that cooperation could evolve among even the most desperate of egoists, those who had been issued rifles and ordered to kill.

In a recent survey of the work since the publication of his book, Axelrod wrote that cooperation based on reciprocity had been noted in everything from vampire bats to vervet monkeys to stickleback fish, and that advice based on the theory had been offered for problems in breaches of contract, child custody arrangements, superpower negotiations, and international trade. We were constantly gaining a better understanding of the conditions in which cooperation would arise, he said; light had been cast on the significance of variations in the number of players, the payoff structure, population structure and dynamics, and the “shadow of the future,” meaning the prospect of retaliation. The study of cooperation was well established and growing, Axelrod said; cooperative behavior could be taught.

For humanists, however, and those scientists who are troubled by the conviction that there is more to human nature than the purely selfish, even this description of cooperation through reciprocity is disappointing. Axelrod’s work is built firmly on the foundation of self-interest. In a sense, his prisoners’ dilemma is no dilemma at all to those who see human choice as strictly rational. There is no divided loyalty here, no painful choice, just a simple calculation. Choose the course with the bigger payoff now: cooperate if you think you are going to play again, stiff your partner if you think you won’t see him again. There is no reason to feel embarrassment; cheating is the rational thing to do as long as you don’t expect to be caught.

The trouble is that there is a wide range of familiar, everyday behavior that we all know doesn’t square with this logic. Travelers still leave the requisite tip in restaurants in cities to which they will never return. Citizens vote in elections even though they know that their vote is extremely unlikely to make a difference. People help strangers in trouble. They willingly bear costs in the name of fair play. They remain married in situations in which it would clearly pay to cut and run. A highly imaginative approach for dealing with such instances, and for extending economics to the realm of the emotions in general, is proposed in a new book by Robert H. Frank.

Frank, a Cornell University professor, spent ten years performing the comparatively humdrum duties of a teacher before going to Washington, D.C. as Alfred Kahn’s chief economist at the Civil Aeronautics Board. Kahn moved on to serve as President Jimmy Carter’s “anti-inflation czar” and Frank remained behind to help close up the CAB. When he returned to Cornell, a couple of remarkable books tumbled out, sufficient to place Frank on leading lists of the half-dozen most interesting mid-life economists working in the United States today. *Choosing the Right Pond: Human Behavior and the Quest for Status* is an exploration of status fairly bursting with novel ideas about why people tend to organize themselves into leagues. It is the kind of book that any reader, perhaps especially readers of this magazine, can pick up and browse with pleasure.

Now, with *Passions Within Reason*, Frank has written a somewhat tighter and more demanding book. But it is the one that is destined to help change the way we think about the basis of ethical behavior.

Frank's starting point is to take emotions as a given. They exist, he says. They're probably not the "fuzzy thinking" that most economists believe them to be. We see a homeless person, we are moved to pity; we see a child in danger, we are moved to help; we see a sterling baseball play, we are stirred and excited; we imagine our mate with another person, we burn with jealousy and rage; we contemplate stealing from an unattended change box, we blush with shame. Thinking as an evolutionist, Frank asks, what useful purpose might these feelings serve?

The answer he gives is that the highly useful function of the emotions is precisely to short-circuit narrowly self-interested behavior, because honest and helpful people are those whom everyone wants for partners, and because nobody messes with people who get angry when they are crossed. It is well known that the ball hog doesn't make the team, that, in the end, the utter egoist doesn't win at romance; the existence of mitigating emotions is evolution's way of making us more "fit" partners.

For Frank, emotions are a way of solving the "commitment problem"—the fact that, for society to work, people have to make binding commitments that can later require otherwise rational actors to behave in ways that seem contrary to their self-interest. There are any number of everyday situations where common sense dictates that it helps to have one's hands tied by emotional predispositions.

If you want people to trust you, it helps, not hurts, to blush when you tell a lie. If you want people not to take advantage of you, it helps, not hurts, to be known as someone who will fly into an irrational rage if you are cheated.

The self-interest model counsels that opportunists have every reason to break the rules when they think no one is looking. Frank says his commitment model challenges this view "to the core," because it suggests a compelling answer to the question, "What's in it for me if I'm honest?" Frank writes, "I am still annoyed if a plumber asks me to pay cash; but now my resentment is tempered by thinking of (my own) tax compliance as an investment in maintaining an honest predisposition. Virtue is not only its own reward here; it may also lead to material rewards in other contexts."

The trick here is that, in order to work, your emotional predisposition must be observable; in order for evolutionary processes to produce the kind of emotionally based, altruistic behavior that interests Frank, cooperators have to be able to recognize each other. Moreover, an emotional commitment must be costly to fake; the Quakers grew rich on the strength of their reputation for honest dealing, partly because it takes just too much time and energy to become a Quaker in order to take advantage of the opportunity to cheat. Any Quaker you meet is almost bound to be honest.

The same principle applies to the rich set of linkages between the brain and the rest of the body, according to Frank. Posture, the rate of breathing, pitch and timbre of the voice, facial muscle tone and expression, eye movement—all these offer clues to a speaker's emotional state. An actor can fake them for a few minutes, but not more. Even a baby can discriminate between a real smile and a forced one. Humans have evolved this complicated signaling apparatus because it is useful in communicating information about character. And forming character and recognizing it is what emotions are all about. For Frank, moral sentiments are like a spinning gyroscope: they are predisposed to maintain their initial orientation. Nature's role is to provide the gyroscope, in the form of "hard wiring" between the body and brain; culture's role is to provide the spin.

In the end, Frank sees his commitment model as a kind of secular substitute for the religious glue that for centuries bound people together in a compact of mutuality and civility. To the question, "Why shouldn't I cheat when no one is looking?" Frank notes that religion always had a compelling answer: "Because God will know!" But the threat of damnation has lost much of its force in the last century or so, and "Smith's carrot and Darwin's stick have by now rendered character development an all but forgotten theme in many industrial countries." The commitment model offers a way back to good behavior based on the logic of self-interest: gains will accrue almost immediately to those who become trustworthy characters. In this view, no man is an island, entire of himself, for each is a part of the other fellow's utility function, thanks to the biological adaptation of the emotions.

Does this make sense? Of course it does. What Axelrod and Frank have in common is that each has offered an account of how "nice" people survive and thrive in the economic world—why they aren't automatically competed out of existence by persons who are more relentlessly self-seeking. What makes Frank's approach more appealing is that it treats emotions as observed facts of life and attempts to account for them rather than immediately rationalizing them away as a regrettable imperfection of the spirit. He gets at what we really mean by "honest"—as opposed to merely prudent behavior.

There are still other explanatory approaches to this situation, in some cases even more promising. Herbert Simon, for example, has proposed a trait he calls “docility”—meaning susceptibility to social influence and instruction—that would contribute to individual fitness and so explain altruism within the framework of natural selection. Such evolutionary approaches may yield more understanding of the rise of the complex organizations that populate the modern world economy than reasoning about the equilibrium of the firm.

Whatever way you cut it, the “news” from economics is beginning to confirm what most working people know in their bones: that integrity and fellow-feeling are highly effective forms of individual fitness. When you consider the amount of time and effort that goes into the moral education of the child, the claim of the economists that there is self-interest and only self-interest is preposterous.

In general, children learn the Golden Rule in kindergarten. Religious traditions introduce them to the absolute prohibitions of the Ten Commandments. In families they learn the role of the conscience and are introduced to many forms of cooperation, including frequent self-sacrifice in the interest of the group.

In schools they learn to be members of cliques, dividing their loyalties between friends inside and outside their gangs. In sports they learn teamwork, including the lesson that nice guys finish all over the standings; as spectators, they learn that fan loyalty may pay off, as may the lack of it.

In love and war they learn sympathetic understanding, and they return constantly to the narrative arts (TV, movies, talk shows, novels, and biographies) to exercise and replenish their understanding. They may even go to military academies or business schools to learn more intricate forms of cooperation before going out into the world of large organizations to practice it.

Character development, in other words, is far from “forgotten” in industrialized countries. Instead, it is simply ignored by most economists while practiced by nearly everyone else—including most economists.

If practitioners may now turn to economics to learn that the conscious pursuit of self-interest is often incompatible with its attainment, so much the better—for economics. Most of us will continue to disregard the utterly premature claims of economics to “scientific” certainty about

the intricacies of human nature. We will continue looking to the humanistic tradition for our instruction in ethics, as we have all along.

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