This essay advances two theses: that the law and economics movement has been losing its upward trajectory within law schools, and that its practitioners should increasingly look to psychology and sociology in order to enrich the explanatory power and normative punch of economic analysis.

The argument that law and economics lacks richness is hardly new. One of the wisest variations on the theme was Arthur Leff's sidesplitting 1974 review of Richard Posner's *Economic Analysis of Law.* Leff asserted the aridity of the rational-actor model of human behavior that economists employ. The economists' model, in its purest form, is based on elegantly simple propositions about both cognitive capacities and motivations. The model assumes that a person can perfectly process available information about alternative courses of action, and can rank possible outcomes in order of expected utility. The model also assumes that an actor will choose the course of action that will maximize his personal expected utility, which may, of course, reflect a concern for the welfare of others.

Leff asserted, as others had long before him, that the assumption of rationality exaggerates actual human cognitive capacities, and that, because a person's received utility is unobservable, the assumption of rational utility-maximization is strictly nonfalsifiable. A richer model for positive analysis, argued Leff, would look to psychology to develop a more realistic view of cognitive processes, and also look to sociology to obtain a more accurate picture of social influences on human behavior.

* Walter E. Meyer Professor of Property and Urban Law, Yale Law School. I thank Bruce Ackerman, Ronald Gilson, Henry Hansmann, Robert Lane, Richard Posner, Roberta Romano, Susan Rose-Ackerman, Alan Schwartz, and Stanton Wheeler for helpful comments. Special thanks are due Betsy Levin, Executive Director of the Association of American Law Schools, who graciously arranged for the tabulation of data on A.A.L.S. section activity.


3. See Leff, supra note 1, at 470-74.
Posner promptly rejected these suggestions and offered two reasons for doing so. First, he said, because it is the role of theory to simplify, the spareness of the economic model of human behavior is not necessarily a ground for criticizing it. Second, because scholars in other disciplines, including psychology and sociology, have done little to enhance understanding of legal issues, economists can be excused for bypassing work in those disciplines. In the ensuing years Posner forged ahead in applying the classical economic model to legal issues.

In my view, Posner's decision to do so was the right one for that time. In the mid-1970s, the paradigm of classical law and economics had just reached full bloom. Leff himself noted that Henry Manne's summer courses in economics for law professors ("Pareto-in-the-Pines") were "continuously oversubscribed," and that law and economics was growing in popularity. In addition, the simplicity of the law and economics paradigm was one of its chief virtues; simplicity makes ideas more accessible, applications more obvious. Even Leff had to admire the juice that Posner could squeeze from it.

Now, fifteen years later, the intellectual landscape is much altered. The first generation of law and economics scholars has essentially accomplished the straightforward applications of the basic economic model in virtually every legal field. Current scholarship is more technical and interstitial. Henry Manne's summer program is less conspicuous, and Leff, if he were still alive, would likely regard current law and economics scholarship as too humdrum and undynamic to be worthy of his fury.

Richard Posner nevertheless continues to repeat his original arguments against enriching the economic model of human behavior. I as-

5. Leff, supra note 1, at 452, 459-60.
6. This statement is strictly impressionistic. The program has been run by Henry Manne, the Director of the Law & Economics Center, George Mason University School of Law, and Marc Hoberman, the Assistant Director. They both regard trends in applications to the program as a potentially misleading measure of its popularity because, over the years, they varied the location of the program, the fees charged, and the extent of advance promotion. Telephone interviews with Marc Hoberman (Jan. 24, 1989); Henry Manne (Feb. 8, 1989). I was thus unable to obtain harder data.

Dean Manne himself believes there has been "increased activity in the past ten years" in law and economics, as evidenced by the increasing number of law and economics workshops, working-papers series, and Law and Economics Centers. Telephone interview with Henry Manne (Feb. 8, 1984). The John M. Olin Foundation has provided funding to support all these activities. I regard these developments more as evidence of the professionalization of law and economics, than of its continuing diffusion. See infra text following note 31.
7. See R. Posner, Economic Analysis of Law 16 (3d ed. 1986) (rationality may be a reductionist notion, but reductionism is inherent in scientific inquiry); Posner, The Decline of Law as an Autonomous Discipline, 100 Harv. L. Rev. 761, 769 (1987) [hereinafter The Decline of Law] ("Some fields that had once seemed to promise important applications to law, such as psychology,
assert that the time has arrived for Posner to take Leff's criticisms seriously. Despite the unarguable costs of complexity, economists should now seek to modify the rational-actor paradigm in order to give it greater power. The trade-off between theoretical simplicity and predictive power is a difficult one. Kepler's theory of elliptical planetary movement is more complex than any Copernican theory of circular planetary movement. Yet, because Kepler's theory enabled astronomers better to forecast where they would find the planets, they came to accept it despite its greater complexity. Posner has in some contexts indicated his willingness to move from simple beginning models to more complex ones. My purpose here is to suggest the possibility of Keplerian improvements in law and economics.

Most of this essay is devoted to bolstering Leff's case for the relevance of psychology and sociology. I offer few concrete recommendations, and instead mainly suggest new directions that may or may not prove to be fruitful. I draw on the work of a variety of scholars, almost none of them based in law schools, who have struggled to bring to rational-actor analysis more realism about both human frailties and the influence of culture. Some of these persons are economists: George Akerlof, Robert Frank, Joseph Kalt, Thomas Schelling, and Richard Thaler, for example. Others, such as Amitai Etzioni, Daniel Kahneman, Amos Tversky, and James Q. Wilson, are associated with other social sciences. One of the objectives of this essay is to make legal audiences more aware of this growing chorus of voices.

Because Richard Posner has signed on to comment on what I write here, much of what follows is written with him in mind. My suggestions are intended to be friendly both to the enterprise of law and economics.
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and to Dick Posner. In my view, law and economics is not in need of a paradigm shift—like that from Ptolemy to Copernicus—but rather only a paradigm improvement—like that from Copernicus to Kepler. For his part, Posner’s lucid prose, scholarly breadth, and unsurpassed productivity have made him not only the premier American legal scholar of our time, but, indeed, one of the extraordinary intellectuals of the late Twentieth Century.11

To undergird the case that the time for enrichment has arrived in law and economics, I start with an examination of the trajectory of this subdiscipline since 1960.

I. LAW AND ECONOMICS IN STEADY-STATE WITHIN LAW SCHOOLS

In general, law and economics is no longer growing as a scholarly or curricular force within the leading American law schools. Instead, it is simply holding previously won ground. This assertion may disconcert some readers, especially when it comes from someone who has been associated with the field. Because we lawyer-economists are positivists, I provide some evidence.

A. Trends at Elite Law Schools

With notable exceptions, intellectual innovations tend to diffuse over time from the most elite universities to the less elite ones. The “new” law and economics itself illustrates this phenomenon. In 1960 one founder, Calabresi, was at Yale and another, Coase, was at Virginia (a few years away from joining Aaron Director at Chicago). A simple, if imperfect, way to measure the influence of law and economics within law schools is to track the number and percentage of tenure-track law-school faculty at elite schools who hold Ph.D.’s in economics. I gathered data since 1960 for the law faculties at Chicago, Harvard, Stanford, and Yale, arguably the four most elite of American law schools.12 In 1960, 2% of the faculty members at these four law schools had doctorates in economics. This

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11. This essay will appraise Posner mainly in his role as a preeminent scholar in law and economics. He has maintained that role while simultaneously serving as a federal appellate court judge and writing influential works in fields tangential to economics. In the past four years Posner has published four books: THE FEDERAL COURTS: CRISIS AND REFORM (1985); ECONOMIC ANALYSIS OF LAW (3d ed. 1986); ECONOMIC STRUCTURE OF TORT LAW (1987) (with W. Landes); and LAW AND LITERATURE: A MISUNDERSTOOD RELATION (1988). Judged by criteria of quality, quantity, and breadth, no other law professor has compiled a recent record that comes close to Posner’s.

12. Any listing of elite law schools is certain to rile loyalists of unlisted schools. I regard a number of other law schools as strong candidates for inclusion in the elite circle; to list them, however, would offend those still excluded. Two readers of the draft manuscript separately urged me to add a particular school to the list; I took some comfort from the fact that their nominees were different. One source of disagreement about rankings is the change over time in the eliteness of a
percentage rose sharply during the 1960s, reaching 5% by 1970. By 1988, the percentage had increased further, but only modestly so, to 6%. By this measure law and economics had already succeeded in penetrating the elite law schools by 1970, and since that time has essentially done little more than hold its own in these institutions.

In order to have another measure of elite intellectual trends, I briefly scanned the content of articles appearing in the flagship student law reviews published at the Chicago, Harvard, Stanford, and Yale law schools. To reveal trends over time, I examined the contents of every fifth annual volume of these law reviews, beginning with those published in 1960-61. An article was counted as within "law and economics" if it was both friendly to the economic paradigm and also made use of, or cited many works in, economics or law and economics. The findings are presented in Table 1.

Table 1 indicates that—paradoxically for a supposedly "conservative" movement—the boom in law and economic scholarship in elite law reviews accompanied the general national social upheaval that occurred between 1965 and 1970. During this period the percentage of law and economics articles in elite law reviews increased from 7% to 28%. The particular institution. For example, in 1960 Stanford's inclusion would be far more doubtful than it is today.

To count as a member of a law faculty, a person had to be described by a nonemeritus, tenure-track title in the A.A.L.S. Directory of Law Teachers for that year (or, for 1960, in the law school's catalog for that year). When counting persons with Ph.D.'s in economics, I made four adjustments. Lucian Bebchuk, Ward Bowman, and Aaron Director, all of whom economists regard as full members of their club, were counted as Ph.D. economists, even though the sources provide no indication that they have doctorates in the field. Conversely, because he was mainly trained in political science and has never published law and economic work, Yale's Joe Goldstein has agreed that, despite his Ph.D. from the London School of Economics, he should not be counted as an economist. In the aggregate, these modifications have little effect on the percentages presented in the text.

The detailed figures are these: In 1960 the four elite faculties had 134 members, three of whom were economists (at Chicago: Director; at Harvard: Turner; at Yale: Bowman). By 1970 these four faculties totaled 163 members, of whom eight were economists (at Chicago: Coase, Demsetz, Director, and Peterman; at Harvard: Musgrave and Turner; at Stanford: Markovits; at Yale: Bowman). In 1988, there were 183 total faculty, of whom 11 were economists (at Chicago: Landes; at Harvard: Bebchuk, Kaplow, and Shavell; at Stanford: Campbell, Polinsky, and Scholes; at Yale: Hansmann, Klevorick, Rose-Ackerman, and Williamson). Note that the turnover between 1970 and 1987 was complete. Included on these lists are persons who in fact only taught at their law school part-time, for example, Musgrave, Klevorick, Peterman, Rose-Ackerman, Scholes, and Williamson. Both lists also include persons who were shortly to leave the indicated position, for example, Campbell (elected to Congress), Director (in 1970), Peterman, and Williamson.

Although the 1970s are commonly regarded as the boom decade for law and economics, these four elite law school faculties actually included only five Ph.D. economists in 1980, compared to eight in 1970. (The departure of Bowman, Coase, Musgrave, and Turner during 1978 and 1979 helped cause this oddity.) These numbers, although small, support the interpretation that the 1970s were primarily a decade of diffusion of law and economics from elite law schools to other places.
TABLE 1

Law and Economics Articles Appearing in Elite Student Law Reviews

<table>
<thead>
<tr>
<th>Year of Law Review Volume</th>
<th>Number of Law &amp; Econ. Articles</th>
<th>Total Number of Articles</th>
<th>Law &amp; Econ. as % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960-61</td>
<td>3</td>
<td>51</td>
<td>6%</td>
</tr>
<tr>
<td>1965-66</td>
<td>5</td>
<td>70</td>
<td>7%</td>
</tr>
<tr>
<td>1970-71</td>
<td>15</td>
<td>53</td>
<td>28%</td>
</tr>
<tr>
<td>1975-76</td>
<td>8</td>
<td>56</td>
<td>14%</td>
</tr>
<tr>
<td>1980-81</td>
<td>18</td>
<td>54</td>
<td>33%</td>
</tr>
<tr>
<td>1985-86</td>
<td>14</td>
<td>59</td>
<td>24%</td>
</tr>
</tbody>
</table>

Note: To count as an "article," a work had both to appear in the articles section of the law review and to be at least fifteen pages in length. Comments on articles appearing in the same issue were ignored, except to add to the page count of the main article. The law reviews examined were the Harvard Law Review, the Stanford Law Review, the University of Chicago Law Review, and the Yale Law Journal.

percentage (surprisingly) dipped to 14% in 1975, recovered strongly to 33% in 1980 (in part because scholars of business law were then beginning to make more use of economic tools), and declined to 24% in 1985. These data on the whole reveal the continuing strength of law and economics, which for several decades appears to have pervaded about one quarter of scholarship in elite law reviews. On the other hand, according to these limited figures, the trend line indicates at best a plateau since 1970, or, if anything, some recent downward movement.

Moreover, there is evidence of exit from the law and economics paradigm. Some of the most conspicuous scholars at the elite law schools who once practiced law and economics have now either abandoned it or begun to stress its limitations. Consider the scholarly paths of Frank Michelman, Guido Calabresi, and Bruce Ackerman, three of the most esteemed middle-aged legal scholars. When Leff was writing in 1974, each of these three regarded law and economics as a highly useful analytic engine. During the past decade, by contrast, all three have de-

14. The low 1975 percentage may be a statistical fluke, or may possibly reflect the diversion of law and economics articles to the Journal of Legal Studies, founded by Richard Posner in 1972. Another possibility, supported by the fact of Leff's attack in 1974, is that law and economics may have been losing some luster at the elite law schools at the same time it was diffusing more broadly within legal education.

15. To paint a more accurate picture, others might examine the contents of more law reviews in more years.

voted more effort to distancing themselves from what they tend to call “Chicagoman” law and economics than to strengthening the paradigm. Although Michelman still inserts in his works an obligatory sentence about the value of law and economics, his heart is now unmistakably with its severest critics.\(^\text{7}\) Although it would be quite incorrect to assert that Calabresi has turned his back on law and economics, he has largely turned to issues of process rather than substance, and has shown little inclination to apply rational-actor analysis to his new areas of interest.\(^\text{8}\) Today, when Ackerman appraises the triumphs and limitations of the Coasean revolution, he positions himself more as an external observer than as a reformist insider.\(^\text{9}\) The exodus of conspicuous scholars from a paradigm must be taken as a warning sign about its future.

B. Trends at Law Schools Generally

The influence of a paradigm of legal scholarship may spread in three distinct ways: across legal specialties, across university departments, and across universities. Thus, when Aaron Director applied microeconomics to rethink antitrust law, his ideas may have influenced Chicago law professors working in other fields (property, taxation), scholars in other Chicago departments (economics, the business school), and scholars at other universities (Virginia, UCLA, Yale).

The evidence presented above indicates that by 1970 law and economics had solidified itself at the elite law schools, but that it has not grown much since at those places. The success of law and economics during the 1970s was its diffusion along all three dimensions just identified.

The diffusion of law and economics across legal specialties and across universities appears to have been most rapid during the early 1970s. Works by Calabresi and Posner published in 1972-73 showed the

\(^\text{17}\) Michelman, Reflections on Professional Education. Legal Scholarship, and the Law and Economics Movement, 33 J. LEGAL EDUC. 197 (1983). While economists regard scarcity as a fact of life, Michelman asserts that the mindset that calculates costs may be socially contingent. Id. at 202.


\(^\text{19}\) B. ACKERMAN, RECONSTRUCTING AMERICAN LAW 46-94 (1984). Ackerman criticizes the positivistic prejudices of economists and points to the shaky foundations of the Pareto superiority principle. Id. at 80-88. His normative program, more “liberal dialogue,” is not a refinement of the law and economics paradigm, but an alternative to it. But see B. ACKERMAN & W. HASSLER, CLEAN COAL/DIRTY AIR (1981), a work comfortably within law and economics.
applicability of law and economics to virtually all legal fields. Henry Manne's summer Economics Institutes for Law Professors, begun to great acclaim in 1971, were a self-conscious effort to help diffuse law and economics across both universities and legal fields. The total number of Ph.D. economists on law school faculties undoubtedly grew steadily during the 1970s and may well have continued to climb during the 1980s. During the 1972-75 period, Ph.D. economists based in law schools authored twelve of the articles in the Journal of Legal Studies and the Journal of Law and Economics; by the 1985-88 period, their output of these articles had more than doubled to twenty-seven. The diffusion among universities is now international, as evidenced by the establishment of the International Review of Law and Economics in 1981.

In the United States, however, there is some evidence of the slowing of the rate of diffusion of law and economics both across legal specialties and across universities. One indication is the trend in the contents of teaching materials commonly used in law schools. In 1983, Gellhorn and Robinson examined coursebooks in four legal fields and concluded that law and economics had "scarcely penetrated legal education at all." In the two basic fields that I follow, torts and property, however, the rate of diffusion of economics into coursebooks was actually higher during the period prior to the Gellhorn and Robinson survey than it has been since. Consider, for example, the two editions of the highly successful Dukeminier & Krier casebook on property. The first edition, which appeared in 1981, self-consciously applied economic analysis in a pervasive fashion. Although the authors have maintained (but not expanded) this emphasis in their recent second edition, a notable change is their insertion of material critical of classical law and economics. Similarly, by the mid-1970s a few torts casebooks had already begun referring to the work of Coase, Calabresi, and the early Posner. The 1980s torts

22. See Table 2 following note 31.
23. The timing of the diffusion of law and economics has varied by legal specialty. Law and economics is currently hugely vital in the field of organization and finance, for example. This general field is the primary focus of the most recently established specialty journal, the Journal of Law, Economics, and Organization, the first issue of which appeared in 1985.
26. See, e.g., J. DUKEMINIER & J. KRIER, PROPERTY 46-48 (2D ED. 1988) (criticisms of Demsetz' theory of land tenure) and at 139-41 (new section entitled "The Perspective(s) from Critical Legal Studies").
casebooks not only do not make significantly more references to law and economics, they tend to continue to stress the theoretical debates that occurred within law and economics during the early 1970s.28

Another scrap of evidence that the diffusion of law and economics within and across American law schools is slowing is the pattern of publication dates of the readers in the Little, Brown series featuring law and economics articles. Most of these readers were first published between 1975 and 1980 and have not appeared in later editions.29 Although it is possible that these readers were a marketing error from the beginning, another interpretation is that there has been a drop in the supply of appropriate articles, in the demand for books of this sort, or both.

An aggregate measure of the influence of a "law and something" movement is the level of activity in its specialty section of the Association of American Law Schools, the professional association of law professors. The A.A.L.S. has not been keeping statistics on enrollments in its various sections over the years. However, Betsy Levin, the new Executive Director of the A.A.L.S., was able to tally memberships in various "law and" sections during 1988-89.30 The Law & Economics Section then had 364 members, compared to 368 for Legal History, 234 for Law & Humanities, and 178 for Law & Religion. Dean Levin was also able to provide data on attendance at various "law and" panel discussions at the four annual conventions held in 1986-89.31 To smooth out fluctuations arising from accidents of schedule, speakers, and subject matter, I averaged the attendance figures for these four years. In 1986-89, the Law & Economics Section program drew an average of 3.2% of the law professors attending the convention. This was a lower average percentage than was


In fields such as bankruptcy, corporations, and commercial law, however, law and economics may be making continuing inroads on teaching materials.

Richard Zerbe began his annual, Research in Law and Economics, during the same period. The first volume appeared in 1979.
30. Personal letter from Betsy Levin to Robert Ellickson (Apr. 3, 1989). The A.A.L.S. annually sends each law professor a form that invites him or her to sign up, at no charge, for membership in a handful of sections that cater to academic specialties. These sections may sponsor a session at the annual convention, or even circulate a newsletter. Many sections are dormant. Enrollment statistics are more informative than attendance statistics because many law professors do not attend the annual convention.
drawn by the Legal History Section (4.9%), the Law & Humanities Section (5.0%), and the Law & Religion Section (5.3%). Although hardly dispositive, these figures do not support the notion that law and economics is the current rage among legal intellectuals.

These various scraps of evidence suggest that law and economics is in the same steady-state condition at law schools generally that it reached at elite institutions around 1970. In the fickle world of ideas, it should be stressed, steady-state is a notable achievement.

The discussion of aggregate trends, however, has obscured an important subtrend: law and economics has become increasingly professionalized, that is, dominated by scholars with doctorates in economics. Table 2 presents evidence over time of the professional standing of authors who contributed articles to the *Journal of Law and Economics* [JLE], *Journal of Legal Studies* [JLS], and *Journal of Law, Economics, and Organization* [LEO]. The two periods studied were 1972-75 (the first four years of JLS) and 1985-88 (the first four years of LEO). During this period the percentage of articles supplied these journals by law faculty who lacked Ph.D.’s in economics fell from 19% to 12%. The fall-off was particularly dramatic for JLE, which during 1985-88 included not a single article written exclusively by a law professor who lacked a Ph.D. in economics.

Although professionalization may increase the sophistication of published work (particularly in the eyes of economists), it also threatens to estrange the law and economics movement from the ordinary law professor. In the law schools with which I am familiar, it is now unusual for a young legal scholar who does not from the outset begin working within the economic paradigm to later move toward it. Compared to a decade ago, law and economics is less often seen as an intellectual tide with which every scholar must come to terms, but rather as a technical sideshow that a young law professor may now spurn with little professional peril. The level of feasible indifference, of course, varies by specialty. In fields such as antitrust or corporations, where the rhetoric of economics has penetrated the governing law, an instructor must have some skill at it. On the other hand, even a contracts, torts, or property instructor still has no difficulty finding a casebook that is either indifferent or hostile to economics.
Table 2

Authorship of Articles in Law & Economics Journals

<table>
<thead>
<tr>
<th>JOURNAL</th>
<th>AUTHOR</th>
<th>1972-75</th>
<th>1985-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>JLE</td>
<td>JLS</td>
<td>LEO</td>
<td>Total</td>
</tr>
<tr>
<td>Non-Econ. Law Fac.</td>
<td>8</td>
<td>21</td>
<td>—</td>
</tr>
<tr>
<td>Econ. Ph.D. Law Fac.</td>
<td>5</td>
<td>7</td>
<td>—</td>
</tr>
<tr>
<td>Non-Law Fac. Authors</td>
<td>77</td>
<td>36</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>64</td>
<td>—</td>
</tr>
<tr>
<td>Non-Econ. Law Fac.</td>
<td>0</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>Econ. Ph.D. Law Fac.</td>
<td>4</td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>Non-Law Fac. Authors</td>
<td>73</td>
<td>34</td>
<td>42</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>74</td>
<td>64</td>
</tr>
</tbody>
</table>

Note: Articles were not counted if they appeared in special (odd-date) issues or were brief responses to articles appearing in the same issue. In the case of co-authors, when at least one author then had a full law school title, the article was treated as a law faculty article; when at least one co-author had an economics Ph.D., the article was counted as an Econ. Ph.D. article.

The theory of comparative advantage helps explain why many junior law-school faculty have shied away from law and economics. Twenty years ago, a young scholar like me who had but a few courses of college economics under his belt could aspire fruitfully to apply basic economic principles to central common law issues. Today, when many of the obvious and easy applications have been done, a young scholar with only a modest amount of technical training can no longer be as optimistic about being able to make a contribution. In short, for the typical young law professor, the benefit-cost ratio of law and economics scholarship has been falling.

C. The Diversion of Law and Economics Work to Other University Units

The maturation of law and economics within economics departments and business schools is another sign of its growing professionalization since 1960. To enhance diffusion to other university departments, Henry Manne in 1976 again provided a helping hand by initiating summer law institutes for economists. These departments did not need much pushing. As Table 2 shows, both in the early 1970s and late 1980s, about 70% of technical law and economics articles were written by persons situated outside law schools.
The future role of business schools in law and economics warrants special note. The recent ascendence of business schools on American campuses is likely to have profound consequences for law schools. A generation ago, business schools as a group were vastly below law schools in the academic pecking order, measured, say, by their ability to attract top college graduates as students or professors. In that era, a person interested in applying economic analysis to practical problems would have been more than likely to end up in a law school setting. Over the past several decades, for reasons intellectual historians will be challenged to explain, the status of the business school has soared in the eyes of these constituents. They are now major centers of law and economics work.

The most optimistic interpretation of this development is that it will stimulate, through cross-fertilization, more law and economics scholarship at law schools. A more realistic interpretation is that it will tend to shift law and economics work from law schools to business schools, and not increase the aggregate amount systemwide. It is plausible that, as law schools began to lose much of their status advantage, incoming scholars and students potentially receptive to the law and economic approach were increasingly attracted to business schools. Moreover, the growth of law and economics in other departments permitted opponents of law and economics within law schools to denigrate, as needlessly duplicative, plans for law-school hiring of more Ph.D. economists. These sorts of trends may explain why, in my eyes at least, the law faculties at, say, Chicago, Harvard, Michigan, and Stanford, are all somewhat more humanities-oriented than they were a decade ago.32

A more pessimistic interpretation of the rise of law and economics at business schools is perhaps the most credible of all. Cultural milieus matter. The core institutional focus of the business school is the management of organizations. Business-school constituencies, as compared to law-school constituencies, are therefore less likely to be interested in the detail of legal rules and legal institutions. The rise of the business school, and of law and economics within it, may thus prove in the long run not only to substitute for law and economics within law schools, but also to make work in the field of law and economics somewhat less relevant to lawyers and legal scholars.

32. Richard Posner's most recent book, one might note, is on law and literature. See supra note 11.
D. How a Richer Paradigm Would Reinvigorate Law and Economics

All this suggests how a freshening of the law and economics paradigm with ideas from psychology and sociology would help rejuvenate the specialty within law schools. For this sort of eclectic and integrative work, a law professor is more likely to be able to compete well with high-tech rivals such as economists with Ph.D.'s. This sort of enrichment would also open new avenues of research, increasing benefit-cost ratios for young law and economics researchers.

II. ENRICHMENT FROM PSYCHOLOGY

The essence of psychology is the study of innate human systems of perception and cognition. The essence of sociology is the study of how social forces influence human behavior. Although this division of labor is hardly a neat one (witness the field of social psychology), I invoke it to organize suggestions for the deepening of law and economics. Recent work in psychology should provoke some rethinking by theorists whose models assume that actors are effortlessly rational.

A. The Framing of Events: Tversky and Kahneman

A number of scholars, notably psychologists Amos Tversky and Daniel Kahneman, have amassed evidence of a common human characteristic that is difficult to reconcile with the standard rational-actor model. When confronted with a choice among a set of prospects, a person is likely to use an arbitrary reference point to judge whether achieving a particular prospect would constitute a loss or a forgone gain. This has consequences because a person is likely to be loss-averse, that is, to regard a loss from a reference point as more momentous than forgoing an apparently equivalent gain from that same reference point.33

This notion is illustrated in Figure 1, which shows a utility curve for money.34 The curve contains an S-shaped bend near the reference point (origin). The curve is drawn to reflect what Tversky and Kahneman as-


34. The figure is derived from Tversky & Kahneman, supra note 33, at S259; however, the axes have been relabeled and the curves extended. The figure could be drawn a different way. If the mere fact of winning or losing, regardless of by what margin, would trigger a large change in utility, the utility curve would contain a vertical section along the y-axis, say from c to a. I am indebted to Henry Hansmann for this point.
sert are two common features of human cognition. First, a person is apt to regard a marginal change as more momentous when the change occurs around a reference point than away from it; this is reflected in the steepening of the curve near the origin. Second, to indicate the tendency toward loss-aversion, the curve descends somewhat more steeply to the left of the origin than it rises to the right of it.

A simple example will help. Suppose a casual poker player were to have the prospect of playing poker with friends on two evenings in the ensuing week. At the beginning of the week, the player is given a choice
between two sets of results for the week’s play. The Set A results are ($-5, -$15) in random sequence, that is, small losses on each evening. The Set B results are ($-35, +$10) in random sequence, that is, a prospect of one large loss and one small win. All monetary sums involved are a trivial fraction of the player’s wealth.

How would a casual poker player choose in advance from among these sets? If the player were to frame the results on a weeklong basis, he would undoubtedly choose Set A, which involves a total loss of $20, over Set B, which involves a total loss of $25. Based on my own experience at the poker table, however, I am willing to assert that many players would chose Set B. The preference for Set B would indicate that the player tends to frame results on an evening-by-evening (not weeklong) basis, and also that he has a kink in his utility curve like the one that Tversky and Kahneman identify. (In Figure 1, Set B produces a total utility loss of d—a, which is smaller than b+c, the utility loss from Set A.)

There are puzzles here for analysts who assume rational behavior. First, why might a player’s cognitive apparatus frame poker results so that to lose on two successive nights of poker makes one more of a “loser” than does the result of losing $25, as opposed to $20, over the course of a week? Second, if some people, such as professional gamblers, do not frame results in this way, how is it that their cognitive apparatus works differently?

That people may “irrationally” frame events from reference points has numerous implications for the positive and normative analysis of law. Take, for example, the legal definition of the rights of landowners. The Tversky-Kahneman analysis suggests that through some little-understood process a landowner might come to “vest” a right—that is, to move his reference point so as to regard the right as something possessed, not as a prospect. This possibility has relevance in many doctrinal pockets of land law.

Consider the takings issue. The Tversky-Kahneman analysis predicts that an ordinary landowner would feel the loss of a psychologically vested right of a given market value more keenly than he would the loss of a prospect (a psychologically unvested right) of identical market value. For example, a farmer would likely regard a government act that

35. In many contexts the mental vesting of rights is at least partly sociological, that is, a function of contingent cultural expectations, including those created by law. An important research topic is to what extent mental vesting is sociological and to what extent psychological, that is, a result of the innate physiology of the human nervous system. A sociobiological story can be constructed to support innate feelings of proprietorship: like territoriality among animals, innate and aggressive proprietary emotions in humans would help deter plunder by enemies. Cf. E. Wilson, Sociobiology 289-90 (abr. ed. 1980) (on territoriality among humans).
expropriated the farmer's fungible crops (of market value $X) as more damaging than a government act that deprived the farmer of development rights that also had a market value of $X.36

Several strands in the current muddle of takings doctrine seem consistent with an unstated assumption that property that is psychologically vested is more worthy of protection than is property that is psychologically on the horizon. Under current Supreme Court doctrine, a permanent "physical invasion" by government always effects a taking of property (even when the invasion is trivial),37 while a regulatory restriction on a landowner's prospective activity is highly unlikely to be held a taking even when it causes a massive reduction in property value.38

Also instructive are the doctrines that determine when the developer of a real estate project can obtain protection from new regulatory interferences. Under current law, a developer's rights are deemed to vest under the takings clause when it has either obtained a key initial government permit, such as the approval of a preliminary subdivision map, or completed an early stage of construction, such as a building foundation.39 Apart from the influence of law, these sorts of concrete events may shift the reference points of the developer's executives so that they come to regard the project in question not as a prospect, but rather as a done deal. The lawmakers who have shaped vested-rights law may have been influenced by their anticipation of this psychological reality.

The Tversky-Kahneman analysis also illuminates the law of adverse possession—the rules that determine when, if at all, a long-time hostile occupant of land comes to acquire title from its owner. Holmes's justification for adverse possession was that, as time passes, an occupier establishes increasingly strong ties to the land occupied. Holmes made clear that these ties are psychological, and not a product of law or culture:

[T]he connection is further back than the first recorded history. It is in the nature of man's mind. A thing which you have enjoyed and used as your own for a long time, whether property or an opinion, takes root in your being and cannot be torn away without your resenting the act and trying to defend yourself, however you came by it. The law can ask no better justification than the deepest instincts of man.40

Posner has offered an interpretation of Holmes's insight:

36. In Bruce Ackerman's terms, an "ordinary observer" would likely regard the former act as threatening a more robust form of property, while a "scientific-policymaker" could not distinguish between the two acts. B. ACKERMAN, PRIVATE PROPERTY AND THE CONSTITUTION 10-15 (1977).
This is a point about diminishing marginal utility of income. The adverse possessor would experience the deprivation of the property as a diminution in his wealth; the original owner would experience the restoration of the property as an increase in his wealth. If they have the same wealth, then probably their combined utility will be greater if the adverse possessor is allowed to keep the property.41

By stressing the relative wealth of the parties, Posner makes clear that he interprets Holmes to be saying something about the gradual diminution of the marginal utility of a person's aggregate wealth. Because Holmes emphasized human instincts, I suggest that his passage is more faithfully interpreted as anticipating (in a primitive way) the Tversky-Kahneman notion of a kink, around its framing point, in the curve of the perceived utility of a particular asset. Holmes's statement that land "takes root in your being" after the passage of time can be seen as a prediction that even a knowing adverse possessor would eventually start regarding the possessed land not as a prospect but rather as a vested right. After that mental event had occurred, the adverse possessor would regard the loss of the land much more grievously than before. A legal system therefore might well regard how a typical adverse possessor would frame his claim as a consideration of normative importance, perhaps one sufficient to tip the legal balance in favor of the adverse possessor as opposed to the true owner.42 The Tversky-Kahneman analysis is actually twice relevant in this context because during a period of adverse possession an absent true owner would likely be psychologically pulling up stakes, thereby becoming less likely to frame as a "loss" the possible relinquishment of the land to the adverse possessor.

Many other applications of the Tversky-Kahneman insight can be imagined.43 The full extent of its descriptive utility and normative relevance remain far from clear, especially in contexts where legal doctrines themselves are likely to feed back to affect how actors set their reference points. Moreover, a legal system devoted to rationalism might undercut its authoritative credibility if the system were to cater to weaknesses in human cognition. By enriching their rational-actor paradigm, however,

41. R. POSNER, supra note 7, at 70 (emphasis in original).
42. Many other considerations, such as the desirability of clearing land titles, influence the content of adverse possession law. See generally Ellickson, Adverse Possession and Perpetuities Law: Two Dents in the Libertarian Model of Property Rights, 64 WASH. U.L.Q. 723, 725-34 (1986); Merrill, Property Rules, Liability Rules, and Adverse Possession, 79 NW. U.L. REV. 1122 (1984).
43. The strongest versions of the Coase Theorem deny that distributive consequences may flow from the legal system's choice among default contract provisions (those that will take effect if not bargained away). Some experimental evidence indicates that this prediction is false. See Schwab, A Coasian Experiment on Contract Presumptions, 17 J. LEGAL STUD. 237 (1988). A Tversky-Kahneman perspective on bargaining might help illuminate results of this sort.
lawyer-economists can at least participate in, and perhaps even lead, the debate over these profound questions.

B. Limitations on Cognitive Capacities

Herbert Simon and Oliver Williamson are renowned for emphasizing the implications of the fact that the human brain, while one of the most extraordinary products of evolution on Earth, lacks both unlimited capacity and infinite processing speed. Now that professors have become attuned to these sorts of shortcomings in their personal computers, they may increasingly come to appreciate these insights.

Law and economics scholars who work in the classical tradition assume that an actor will both know and honor legal rules. This assumption greatly simplifies their task of recommending how to reduce the costs of accidents, expedite market transactions, facilitate the settlement of disputes, and so on. While there is certainly evidence that law can affect behavior, numerous empirical studies have found that people often ignore or otherwise fail to respond to law, and, when they do try to be law-abiding, that they misconstrue legal signals. For example, Stewart Macaulay found that Wisconsin business firms used norms, not contract law, to adjust contract disputes. H. Laurence Ross found that insurance adjusters handling accident cases often apply rules of thumb that have little connection to formal tort law. Daniel Givelber and his coauthors found that therapists had a poor understanding of the duties that the famous Tarasoff case imposed on them.

The reality that cognitive limitations impair the learning of law makes legal instrumentalism much more difficult. An analyst must become involved in the messy matter of the extent to which actors will respond to formal legal signals. Although theoretically inclined law and economics scholars are aware of this problem (which they would identify as an aspect of the burgeoning field of the economics of information),

44. Simon's contributions are nicely summarized in Hirshleifer, supra note 2, at 61. See also O. Williamson, Markets and Hierarchies (1975); O. Williamson, The Economic Institutions of Capitalism (1985).
47. See generally Ellickson, supra note 45, at 84-90.
they frankly admit that it is for them a largely unexamined frontier.\textsuperscript{51}

If law and economics scholars were to address these issues, several clusters of research topics would present themselves. A first cluster involves the normative questions that concern when, if ever, a legal system should take human cognitive limitations into account. A legal system that responded to a person's actual knowledge of law, rather than the person's potential capability of learning law, would create disincentives to learn law. This is a basic rationale for the central legal principle that ignorance of the law is no defense. On the other hand, the law's favored treatment of minors, the insane, and other "incompetents" may be based in part on their inability to receive legal signals. Moreover, many substantive legal rules, such as the reasonable person standard in torts, hold an actor to a level of factual knowledge that is well short of omniscience. Does cognitive psychology support these sorts of concessions to limitations in brain power?

A second cluster of issues involves the positive and normative analysis of the \textit{communicability} of legal rules. Impressionistic evidence about legal inducements for motorists to use seatbelts, for example, suggests that criminal-law rules have much more influence than civil-law rules do.\textsuperscript{52} Is this in fact so? If so, is it due in part to differences in the communicability of these different sorts of legal rules? If simplicity would lend power to a social-scientific idea (such as to the rational-actor model itself), simplicity in a legal rule might also add to its instrumental force.\textsuperscript{53} To what extent does the fact that legal rules are hard to communicate provide a rationale for stability in the law? If people already know custom (because it is observable in everyday life), both lawmakers and citizens will perhaps save transaction costs when law follows custom. If

\textsuperscript{51} See W. LANDES \& R. POSNER, \textit{supra} note 46, at 312 ("There is a gap between the law in the books and in action; our focus in this book, however, has been on the former. We argue that the law creates incentives for parties to behave efficiently rather than that they actually behave so."); S. SHAVELL, \textit{ECONOMIC ANALYSIS OF ACCIDENT LAW} 292-93 (1987) (author's admission that he may have exaggerated the effects of liability law on behavior).

\textsuperscript{52} Federal safety officials report that seatbelt usage in the United States rose from 11\% in 1982 to 37\% in 1987. They attribute this increase to the adoption during the mid-1980s of mandatory (that is, criminal) seatbelt laws in over half the states. Wall St. J., July 31, 1987, at 17, col. 6. Courts regularly confront in tort cases the issue of whether failure to wear a seatbelt should reduce an injured plaintiff's recovery. See, e.g., Waterson v. General Motors Corp., 111 N.J. 238, 544 A.2d 357 (1988). In light of the greater sums at stake in civil litigation and the improbability of enforcement of the criminal laws, an omniscient and rational actor might well pay more heed to this body of civil law than to the criminal law. Traffic-safety experts, however, never identify civil law rules as an influence on seatbelt usage. Might civil law be relatively uninfluential because the media underplays it? Because criminal violations and convictions law are inherently more stigmatizing and guilt-provoking?

\textsuperscript{53} For example, the relative communicability of the rules may be an important consideration in the choice between strict liability and negligence in torts.
the function of an ideology is to provide a world-view that simplifies decisionmaking, legal rules that hew to a consistent ideology may be easier to communicate than rules that cut across different ideologies—and so on.

A third cluster involves the role of intermediaries who help provide *ex ante* legal information to actors. These include the media, attorneys who provide preventive-law services, and liability-insurance companies whose premiums roughly reflect legal risks. In practice, is a newspaper report of a new court decision, an attorney’s gloomy advisory letter, or the arrival of a higher liability-insurance bill more likely to prompt a municipality to close its playgrounds?

C. Cognitive Barriers to Dissonant Information

Unlike computers, people are often closed-minded. A person who has established a certain view of the world or of himself may wall out information that threatens the maintenance of those views. For example, a litigator who has a self-image of being a virtuous person is apt to filter information so as to persuade himself that he is on the “right” side of any litigation he is handling.

Two examples will illustrate possible implications of the theory of cognitive dissonance for substantive law. Consumer protection statutes sometimes provide a short “cooling-off period” during which a purchaser can back out of a contract. Because the ordinary consumer presumably has the self-image of being a savvy shopper, the theory of cognitive dissonance predicts that few buyers will in fact rescind during these windows of opportunity.

Workers compensation statutes, first passed in the early part of this century, make an employer strictly liable for employee injuries on the job. The strongest version of the Coase Theorem predicts that these statutes would not have increased employer safety efforts, because, even when workers bore the risks of employment injuries, workers should have agreed to wage concessions in order to obtain the cost-justified level of job safety. There is empirical evidence, however, that the advent of workers compensation did significantly reduce worker fatalities.

56. A rival psychological notion, “buyer’s remorse,” might be interpreted to predict a contrary finding.
possible explanation for this result is cognitive dissonance: once on a job, an employee might start walling out information about its hazards, and thus come to undervalue the benefits of innovations in safety equipment.58

The theory of cognitive dissonance may also provide insights into the behavior of actors in the legal system. It has straightforward applications to the reliability of witnesses. More provocatively, a corollary of the theory is that the fewer external reasons one has for doing something, the more one must generate internal reasons for doing it.59 This suggests that one way to reduce the ideological smugness of the likes of public-interest lawyers, law professors, legislators, and judges would be to increase their pay.

D. Limits on Self-Control

The rational-actor model implicitly assumes that a person can unfailingly execute decisions made about his own future conduct. In reality, many individuals worry about their will power. This human frailty has attracted increasing attention from social scientists, including respected economists. Some economists postulate the equivalent of an ongoing Freudian battle between ego and id,60 while others assume a more unified personality.61 This body of theory is at a primitive stage and may never pan out. On the other hand, it may eventually prove to illuminate such central topics as the limits of law in controlling behavior and the design of procedures to help assure deliberativeness.

III. ENRICHMENT FROM SOCIOLOGY: WHAT IF ECONOMIC MAN HAD CULTURE?

Sociologists and social psychologists study the influence of people upon one another. Both microsocial environments (family, friends, immediate neighbors) and macrosocial environments (associations, national culture) may affect an individual's behavior. The reality of pervasive third-party social controls is not inconsistent with the standard economic model because an other-regarding egoist would give weight to acclaim, ostracism, and other forms of social sanctions. I will therefore say little about informal third-party rewards and punishments (although it is

58. This argument is developed in Akerlof & Dickens, The Economic Consequences of Cognitive Dissonance, 72 AM. ECON. REV. 307 (1982).
timely to note that most law and economics scholars have tended to underestimate their importance.\textsuperscript{62}

I will instead focus on social influences that may shape a person's internal tastes for particular outcomes. Suppose that a society could enhance its members' tastes for outcomes that a cost-benefit analyst would conclude were wealth-maximizing ("cooperative outcomes").\textsuperscript{63} By altering its members' internal preferences in this altruistic direction, the society would have instituted a \textit{first-party} system of social control that would operate without external enforcers.\textsuperscript{64} The society would have created, in short, a self-executing system of civic virtue. Whether and through what means a society should attempt to socialize its members in this way are normative questions increasingly seen as central to social science.\textsuperscript{65} The debate, of course, is an old one, dating back at least to Plato's \textit{Republic}.

Economists have not contributed much to the discussion of virtue.\textsuperscript{66} In part because the origin of preferences is an inherently murky topic, mainstream economic theory takes tastes as exogenous givens. True to its libertarian spirit, however, economic theory presumes that the satisfaction of tastes is presumptively a good thing. The criterion of Pareto Superiority—the normative yardstick that commands the greatest allegiance from economists—depends entirely on this presumption.

Some economists, and also some critics of economics, have striven to speculate on the origin and legitimacy of preferences.\textsuperscript{67} Warren

\textsuperscript{62} See Ellickson, \textit{supra} note 45, at 81-90. A few economists have begun to grapple with the implications of the powerful human hunger for social status. See G. Becker, \textit{supra} note 2, at 253-81; R. Frank, \textit{Choosing the Right Pond: Human Behavior and the Quest for Status} (1985).

\textsuperscript{63} To simplify the discussion, I will consider wealth maximization as the sole aim of a culture's institutions that shape tastes. This assumption buries several crucial issues, including: (1) the proper distribution of original entitlements; and (2) the possibility of a culture having purely redistributive rules. The wealth-maximization criterion differs from the Pareto-superiority criterion for efficiency (in part because it does not assure that no one will be made worse off), and also from the Kaldor-Hicks criterion (because it makes use of objective, not subjective, measures of value). When the purpose of the taste-shaping enterprise is to make actors internalize the consequences of their everyday actions on others, none of the three criteria pose major risks of circularity. I predict that a society's taste-shaping institutions strive to foster wealth-maximizing behavior in situations where an actor would find it difficult to contract with those whose welfare he would affect.

\textsuperscript{64} Altruism may spring from sources other than diffuse socialization. A genetic component may be present, particularly in the case of altruism among kin. Seemingly altruistic acts may also be part of a continuing and mutually beneficial pattern of reciprocal social exchange between particular individuals.


\textsuperscript{66} Not, at least, since Adam Smith, one of the more credible names in economics. See A. Smith, \textit{The Theory of Moral Sentiments} (1759).

\textsuperscript{67} Within economics, see, e.g., Kornhauser, \textit{The New Economic Analysis of Law: Legal Rules
Schwartz, himself a practitioner of law and economics, has nicely expressed the normative case for making tastes endogenous:

In devising a normative theory one may wish to go beyond tastes as they exist as a benchmark of value. For if tastes derive from some social process, and defects in that process can be identified, one may wish, for example, to treat as controlling those tastes which would exist if the process had not been flawed.68

Besides deepening the normative power of economics, a successful theory of taste formation would enable economists better to make positive predictions of shifts in supply and demand curves. During the coming years both economics and law and economics should, and undoubtedly will, witness more work on taste formation.69

A. A Suggestive Model of the Internalization of Culture

Cooperative behavior is often observed in settings where the unalloyed rational-actor model would be unlikely to predict it.70 This evidence does not require the jettisoning of the rational-actor model, but does call for its refinement to incorporate the cultural processes that take the edge off selfishness. Rather than attempting a rigorous addition to theory, I here offer only a suggestive story about how a human society might succeed in inducing its members to shift their individual tastes away from selfish (and uncooperative) outcomes and toward cooperative outcomes. I have no great confidence that my particular story could survive game-theoretic analysis or empirical testing; its purpose is simply to stimulate lawyer-economists to concern themselves with the acculturation process.

The story depends on two assumptions. The first is that cultural institutions that promote cooperation among the members of a group are

as Incentives, in LAW AND ECONOMICS 27, 42-49 (N. Mercuro ed. 1989); Pollak, Habit Formation and Dynamic Demand Functions, 78 J. POL. ECON. 745 (1970); Stigler & Becker, De Gustibus Non Est Disputandum, 67 AM. ECON. REV. 76 (1977). For a critic's useful summary of why private preferences may be endogenous, and why the legal system should not always respect these preferences, see Sunstein, supra note 9.

68. Schwartz, The Future of Economics in Legal Education: The Prospects for a New Model Curriculum, 33 J. LEGAL EDUC. 314, 327 (1983). Familiar leftist critiques of markets assert that a person's tastes are apt to arise from illegitimate processes such as false consciousness or the influence of advertising.

69. Calabresi has lately been identifying taste-shaping as one of the proper functions of law. See, e.g., G. CALABRESI, IDEALS, BELIEFS, ATTITUDES, AND THE LAW: PRIVATE LAW PERSPECTIVES ON A PUBLIC LAW PROBLEM 82-84 (1985). A staple argument of critics of the rational-actor model is that the model, by assuming and legitimating selfish behavior, will increase the amount of selfish behavior. See, e.g., Kelman, "Public Choice" and Public Spirit, 87 PUB. INTEREST 80, 93-94 (1987). This criticism supposes that academic scribblings shape tastes. (To my knowledge, these critics have not attempted any empirical testing of this proposition, say by comparing the levels of free-riding in committee work within the economics and sociology departments.)

70. See infra text accompanying notes 82-108.
more likely to endure than are institutions that are less supportive of cooperation. The second is that, in many contexts at least, first-party systems of social control are cheaper to administer than third-party systems are. Taken together, these assumptions would provide an evolutionary explanation for why current day human cultures would invest heavily in socialization processes aimed at training members to prefer cooperative outcomes. More specifically, for example, they would explain why nursery schools devote so much effort to teaching “sharing,” a behavioral pattern that does not seem to be innate in small children.

Sociologists refer to taste-shaping as the internalization of norms. Rational-actor analysts, who generally employ multi-period Prisoner’s Dilemma models to explore continuing human interactions, rarely if ever attempt to examine this process. One way to make tastes endogenous in these models would be to add a mechanism, preferably one plausible to psychologists, by which a player of an iterated game could change his valuations of specific game outcomes as the game progressed from period to period. An example of a simple mechanism will help clarify the idea. Suppose that a player who had been punished in tit-for-tat fashion x-times in succession for unprovoked defections in a Prisoner’s Dilemma game, would, at that point, internalize the punishment. After internalization, the player would, like Pavlov’s dog, automatically deduct the expected amount of punishment from the payoffs he previously perceived to be associated with his unprovoked defections. After it had kicked in, an internalization mechanism of this sort would mean that a rational player would be “nice,” that is, never the first to defect in an iterated Prisoner’s Dilemma. From such a small seed might flower the miracle of civilization.

71. Evolutionary theorists often balk at this sort of notion because it requires a mechanism of “group selection.” As a biological matter, individuals, not groups, have lives. An ethos of cooperation within a group might be most conducive to the survival not of cooperators, but rather of noncooperators who exploited the favorable social environment. The hypothesis that cooperative institutions endure therefore presupposes that human groups are able to develop mechanisms to police against exploitation by internal free-riders. Because members may also be tempted to free-ride when it comes to contributing to this internal policing function, a complex internal network of social controls would have to exist before group selection could take place. For an attempt to show how this might happen see H. MARGOLIS, SELFISHNESS, ALTRUISM, AND RATIONALITY: A THEORY OF SOCIAL CHOICE 26-35 (1982).


73. Parental discipline is widely seen as the key mechanism of socialization. See generally DEVELOPMENT AND MAINTENANCE OF PROSOCIAL BEHAVIOR: INTERNATIONAL PERSPECTIVES ON POSITIVE MORALITY (E. Staub, D. Bar-Tal, J. Karylowski & J. Reykowksi eds. 1984) [hereinafter E. Staub].

74. For those uninitiated in game theory, R. AXELROD, THE EVOLUTION OF COOPERATION (1984), is a good place to start.
This idea can be expressed more informally, in language that law professors might use when describing the aspirations of law students. Suppose that cultures have some success in inculcating in their members two idealistic thought processes. The first, altruistic ideology, sets the model of appropriate behavior; it asks members to prefer cooperative outcomes in human encounters whether or not they themselves are directly involved. The second, a self-concept of rectitude, creates a first-party enforcement mechanism. This mechanism automatically rewards a member with internal feelings of pride for extraordinary contributions that help move the society in a more cooperative direction, and automatically punishes the member with guilt for having failed to make ordinary contributions to this endeavor. (Perhaps it is something like this self-concept of rectitude that forces a university professor to grade the last question on an essay exam, even when no one would know if this weren’t done.) In combination these mental processes would automatically foster cooperation.

Like much in sociology and social psychology, this is mushy stuff. It is mushy in large part because ideologies and self-concepts are not observable as such; these terms are at best heuristics about what goes on in the black box of the human brain. Perhaps as a result, in Chicagoan economics it is frequently asserted that “ideas don’t matter.” An irony here is that Chicago law and economics itself provides as strong a piece of intuitive evidence as there is to refute the point. According to Ed Kitch, an inside observer, it was the idealistic notion of spreading a truer social science that inspired the work of the pioneers of Chicago law and economics.

Admitting the possibility of self-enforced altruism need not put an analyst on a slippery slope to Panglossianism. The sources and depth of

75. Compare W. DAMON, supra note 72, at 1-15 (identifying the two functions of social development as socialization (development of sensitivity to others) and individuation (development of a sense of self)).
76. D. NORTH, supra note 54, at 45-58, argues that ideologies tend to have a content that helps overcome free-rider problems.
77. The need to justify one's behavior to oneself is discussed in E. ARONSON, supra note 55, at 109-17, 127-29. See also Frankfurt, Freedom of the Will and the Concept of a Person, 68 J. PHIL. 5 (1971).
78. An impressive attempt to defend this proposition is Peltzman, Constituent Interest and Congressional Voting, 27 J.L. & ECON. 181 (1984). There Peltzman refers to ideology as a category that is "unfamiliar to economists." Id. at 184.

[The story] that most of the participants would like to believe is true and which I think most of them believe is true—although they would probably deny it—is a story of the power of the human mind to divine the truth and to persuade other human minds to the same vision through the techniques of patient inquiry and careful research.
altruism are matters that can be, and have been, analyzed. Partly in response to the highly publicized inaction of thirty-eight alleged witnesses of the death of Kitty Genovese in 1964, psychologists have conducted hundreds of field studies of helping behavior among strangers. Some of these focus on personal characteristics, such as age or sex, of the potential helper. Others focus on situational variables, such as how burdensome providing help would be. These sorts of studies can illuminate both what sorts of socialization processes abet altruism, and also how willing a well-socialized person would be to trade off rectitude for, say, personal safety. Research along these lines might help rational-actor theorists decide in which people, in which situations, and in what quantities, to alloy the self-interest model with a dollop of altruism.

B. Illustrative Applications of the Notion of Acculturated Actors

Suppose law and economics were to start with the working assumption that most persons are to some degree acculturated to be self-constrained by idealistic notions about the good society and the good self. This assumption could assist analysis of human behavior in all contexts. I will briefly explore three: economic exchange, social exchange, and political behavior.

1. Economic Exchange

The main focus of microeconomics is the explicit exchange of goods and services for money. The model of the acculturated actor predicts that a buyer or seller would trade off some monetary income for the feeling of rectitude that would flow from having honored cultural ideals of proper bargaining behavior.

A number of empirical studies support this prediction. In a creative laboratory experiment involving the splitting of a monetary prize, Hoffman and Spitzer found evidence of an internalized "Lockean ethics." A subject who had "earned the right" to lay claim to over half the joint proceeds was more likely to exercise that claim than was a subject who had been randomly assigned that privileged position. Kahneman, 81

80. For references, see, e.g., Eagly & Crowley, Gender and Helping Behavior: A Meta-Analytic Review of the Social Psychological Literature, 100 Psychological Bull. 283 (1986); E. Staub. supra note 73.


Knetsch, and Thaler have assembled an array of evidence that buyers and sellers are influenced by conceptions of fair behavior in the market place.\textsuperscript{83} For example, 82\% of respondents to their telephone survey thought it would be unfair for a hardware store to raise the price of a snow shovel from $15 to $20 after a blizzard. In one well-documented historical case, Standard Oil of California responded to a severe shortage of gas by rationing its product rather than by raising price when it could have.\textsuperscript{84}

The elaboration of these sorts of studies might help reveal the cultural causes and depth of Lockean ethics or other ideologies. For example, with a large enough sample size, investigators using the Hoffman-Spurier format could correlate sharing behavior with a subject's educational, family, and cultural background, and also plot the effect of increases in amount of monetary sacrifice on a subject's inclination to share. A scholar ambitious enough to undertake an out-of-the-laboratory study might investigate practices of tipping in restaurants. The puzzle for the unalloyed rational-actor analyst is that diners leave tips even under circumstances where the failure to tip could not possibly lead to external sanctions, such as harm to reputation. A possible psychological explanation for habitual tipping is that it saves a diner the transaction costs of having to dope out the strategic considerations in a particular restaurant setting. A possible sociological explanation is that the obligation to tip is internalized and enforced by the threat of self-imposed guilt. The latter theory predicts more strongly than the former that an acculturated person who had forgotten to tip in a strange restaurant would, upon realizing that failure, drive back a block or two to correct the error.

Research on cultural constraints on contracting would increase both the positive and normative power of law and economics. For example, it has been a staple of urban economics that rents charged residential tenants tend to lag below market rents as length of residency increases. There is some controversy about the amount of this discount and its causes.\textsuperscript{85} Yet to be reflected in this literature is the sociological perspective that this upward stickiness may arise in part from cultural norms of fair pricing. A better understanding of the rent-adjustment process


would, in turn, enable a deeper normative analysis of measures such as rent control.

2. Social Exchange

Self-enforced cultural constraints on social behavior are best revealed in encounters between anonymous strangers who are highly unlikely to see one another again. The many studies of helping behavior in these situations tend to indicate that there is far more cooperative behavior than a Hobbesian game-theorist would expect. For example, public television stations do manage to generate contributions and lost-and-found departments do receive a stream of "found" articles.

Psychologists have used a variety of research strategies to explore these practices. A simple one is to leave in public places unstamped letters that are hand-addressed to a collaborator of the researcher, and then to count the number of letters that arrive at that address. By changing locations (or time periods), this sort of technique permits the cross-cultural (or longitudinal) study of patterns of altruism. By placing coins or other noticeable temptations in the letters, a researcher can also learn something about how people trade off money and rectitude.

A deeper knowledge of the dynamics of altruism would help lawyer-economists carry out positive and normative analysis of such problems as the duty to rescue in torts, entitlements to restitution for unasked-for benefits, and the design of the welfare state. Richard Posner needs no prodding on this front; he has been a leader in trying to incorporate the possibility of altruism into law and economics theory.

3. Political Behavior

In its crudest form, public-choice theory assumes that voters, legis-

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86. Most current game-theoretical work on trust and cooperation supposes that the parties are engaged in repeat play. Because a continuing relationship assures future opportunities for external sanctioning of uncooperative behavior, in repeated games one need not rely on the notion of internalized norms to explain cooperation.

87. See supra note 80; A. ETZIONI, supra note 10, at 52-53.

88. See, e.g., Forbes, TeVault & Gromoll, Honesty as a Function of Geographic Region and City Size: Explorations of a 30-Year-Old Hypothesis, 42 PSYCHOLOGICAL. REP. 647 (1978) (finding that Midwesterners were somewhat more altruistic than others, but that there was no difference in the return rates from small towns and medium-sized cities.).

89. One study found that close to 50% of the letters were mailed when no coins were inside, and that the figure dropped a bit under 40% when the "lost" letter contained a quarter and a nickel. Id. at 648-51.

lators, judges, and other political actors are unmoved by ideals. To bring culture to political actors does not require abandonment of the model of individuals as self-interested utility maximizers, but does require recognition that inculcated ideas of the good society and the good self may affect the size of the payoffs political actors would receive from various courses of action.

Public-choice materialists are typically puzzled that people bother to vote in popular elections. An individual voter is highly unlikely to affect election outcomes and casting an informed vote is a time-consuming process. A self-interested person therefore might be expected to stay away from the polling place. However, if democratic cultures have had some success in inculcating both the notion that eligible voters should vote and also an internal enforcement mechanism, such as a feeling of self-satisfaction after having voted, then the phenomenon of voting ceases to be puzzling. Moreover, once the possibility that people have idealistic ideologies is admitted, it is easier to understand why voters often vote contrary to what appears to be their material self-interest.\footnote{Evidence that voters are influenced by their perceptions of civic duties is marshalled in A. Etzioni, supra note 10, at 61-62, and S. Kelman, supra note 65, at 252-57. On the general issue, see Benn, The Problematic Rationality of Political Participation, in PHILOSOPHY, POLITICS AND SOCIETY 291 (5th series 1979).}

A sociological analysis of voting would attempt to correlate a person's likelihood of voting, and of voting in an other-regarding way, with personal variables such as education, childhood environment, and ethnicity.\footnote{See, e.g., Wilson & Banfield, Public-Regardingness as a Value Premise in Voting Behavior, 58 AM. POL. SCI. REV. 876, 882-86 (1964) (reporting some variation by ethnicity in voting on bond issues).}

The notion of internalized altruistic ideologies and self-concepts may also help predict the behavior of legislators. The simplest public-choice models portray legislators as simply trying to maximize their chances of re-election.\footnote{See, e.g., R. Posner, supra note 7, at 497 (the electoral "process creates a market for legislation in which legislators 'sell' legislative protection to those who can help their electoral prospects with money or votes").}

The crudest versions of these models assume that voters' preferences are material only. As was just suggested, however, there is evidence that voters have ideological preferences and that legislators respond to these.\footnote{See Dubin & Navarro, How Markets for Impure Public Goods Organize: The Case of Household Refuse Collection, 4 J.L. ECON. & ORGANIZATION 217 (1988) (Republican towns tend to allow market competition in refuse collection; Democratic towns tend toward governmental collection).} Moreover, during the past decade economists have analyzed whether legislators' own ideologies may influence their votes on bills. Several studies find that this occurs.\footnote{Two leading works are Kalt & Zupan, Capture and Ideology in the Economic Theory of Politics, 74 AM. ECON. REV. 279 (1984); Kau & Rubin, Self-Interest. Ideology, and Logrolling in
Although these results are controversial, there is a growing sense among public-choice theorists that some judicious recognition of ideology would increase the predictive power of their models. A concession along these lines would allow Richard Posner to retreat from some of his more startling positions, such as, that it is plausible "to view the First Amendment as a form of protective legislation extracted by an interest group consisting of publishers, journalists, pamphleteers, and others." For most of us, I suspect, it is still more plausible to view the first amendment as the embodiment of tenets of liberal ideology that the Framers and their constituents highly prized. Besides aiding in positive analysis, a richer theory of the legislative process would assist the normative analysis of fundamental legal issues, such as the proper judicial role in reviewing the constitutionality of legislation.

This last point leads naturally to a discussion of the behavior of another political actor—the judge. Richard Posner has written much that bears on this topic. He has also had the personal experience of a half-dozen years on the federal appellate bench. No one is better qualified to speak about the motivations of judges.

For more than a dozen years Posner has advanced a pair of highly controversial theories of the results of judicial decisions. In brief, these theories suppose that common law decisions tend to promote the Kaldor-Hicks efficiency of resource allocation, while statutory decisions tend to safeguard the terms of deals that interest groups have previously struck with legislatures. A weakness in these theories has been Posner's explanation for the motivations that would lead self-interested, rational judges to reach these results. His general argument is that judges increase their power as a group by individually exercising a level of restraint that keeps the legislature at bay. As Posner himself is aware, however, there are

Congressional Voting, 22 J.L. & ECON. 365 (1979). These studies emphasize the limitations of using only the material interests of constituents to predict legislators' votes; they therefore tend to blur the influence of constituents' ideologies and the legislator's ideology.

Those who believe in the possibility of civic virtue assert that idealism often motivates a person's decision to run for office. See S. Kelman, supra note 65, at 259-62.

Peltzman, supra note 78, forcefully argues that the role of ideology has been exaggerated. Yet even Peltzman agrees that ideologies may play "the role of brand names around which like-minded candidates, voters, and contributors come together," (id. at 203) and that ideology did play a prominent role in Congressional voting on social policy issues. Peltzman concludes not by denying the influence of legislators' ideologies, but rather by arguing that economists can relegate this influence to a sideshow.


Compare R. Posner, supra note 7, at 498 (admitting that "many laws (most criminal laws, for example) are not the product of narrow interest groups").

See, e.g., R. Posner, supra note 7, at 505.

Id. at 505-12.
two problems with this. The first is the paradoxical nature of the argument that the road to power is the refusal to exercise it; how does one reconcile the image of power-hungry judges with the notion that extra-judicial forces determine the outcomes of cases? The second, with which Posner explicitly but unsuccessfully grapples, is the free-rider problem. Why should a particular judge exercise restraint when most of the costs that Posner associates with judicial activism would be borne by the judiciary as a whole?

There is another theme, however, in Posner's writing on judicial behavior. He has long recognized that ideology may influence a judge's perceptions of the desirable outcome in a particular case. In fact, he sometimes hints that ideology is the prime motivator of judges: "The principal explanation for judicial behavior must lie elsewhere than in pecuniary or political factors. One possibility that is consistent with the normal assumptions of economic analysis is that judges seek to impose their personal preferences and values on society." In his 1985 book, *The Federal Courts*, Posner sets out some normative principles of judging, such as the desirability of writing principled opinions and exercising restraint. He notes that one of the attractions of a judgeship is "the opportunity it offers for constructive public service," and admits that, when deciding cases, judges in the United States have an unusual degree of freedom to choose among competing political concepts.

This admission of the role of ideology creates tensions within Posner's analytic framework. It is a conspicuous break from the Chicagoan orthodoxy that ideas don't matter. Moreover, if Posner continues to push his long-held theories of the results of judicial decisions, he must explain why an ideological judge would seek efficient outcomes in common-law cases and deal-preserving outcomes in statutory cases.

Like other law and economics scholars, Posner has yet to confront the murky issues that arise once one admits the influence of ideology on judges. These involve issues of where judicial ideologies come from,
what their content is, and how influential they are. I will content myself
with merely identifying some worms that lie beneath this rock.

A law, economics, and sociology approach to judicial behavior
would suppose that, by the time they reached the bench, judges would be
people of culture. Although they would undoubtedly be heavily self-in-
terested, they would also bear the stamp of childhood discipline, formal
education, cultural milieus, and so on. As a result of these social influ-
ences, most judges would have idealistic aspirations for social organiza-
tion and also an idealistic self-concept that would provide a dose of self-
discipline. In short, they would have ideas about how judges should be-
have and would tend to punish themselves when they did not meet that
test. Like a solitary hiker who declines to litter, a solitary judge thus
might enforce an inculcated standard of performance. The analytic issue
is which social variables particularly influence the professional conduct
of judges. Why is it that some judges, for example Justice Blackmun,
seem to change their ideologies through time?

What can be said, from an economic perspective, about the content
of particular judicial ideologies? The values that matter most to judges,
including apparently Richard Posner, are those that involve idealistic
conceptions about the proper way to structure a society.107 Some of
these involve rather abstract issues of process: how power is to be allo-
cated between state and citizen, between national and subnational gov-
ernments, and between legislatures and courts. Other values may be
more substantive, dealing with, for example, the extent to which people
should be held accountable for their personal situations and the proper
trade-off between egalitarian distribution and a larger economic pie. A
lawyer-economist may be able to identify how different ideologies turn on
different bedrock beliefs about human nature and the sources of human
knowledge.

The motivational weight of judicial ideologies is another topic of
importance. An individual judge is constrained by informal and formal
social controls exercised by other judges, attorneys, law professors, jour-
nalists, and other third parties.108 What is the relative influence of these
third-party constraints compared to the self-discipline arising from a
judge’s ideology and self-concept? To what extent do judges trade off
ideological rectitude for other personal ends, such as leisure and the pos-
sibility of promotion?

107. Id. at 198-258 (espousing ideals of judicial behavior).
108. See id. at 15-22. Galanter, Adjudication, Litigation, and Related Phenomena, in LAW AND
THE SOCIAL SCIENCES 151, 171-82 (1986), provides an introduction to the literature on the socializa-
tion and roles of judges.
IV. CONCLUDING REMARKS

In the social sciences, the rational-actor model of human behavior has had no peer. Law and economics scholars have used it to achieve many triumphs. I have argued, however, that scholars who continue to use this simple model will be in an era of diminishing returns. In the coming years, lawyer-economists will be wise to investigate the benefits of complicating the rational-actor model by admitting two notions: the frailty of human cognition and the possibility of a self-enforced altruism arising from the influence of culture.

It is no answer to say that these questions are beyond the economist's domain and belong exclusively to psychologists, sociologists, and others. In Jack Hirshleifer's words, "There is only one social science." The mark of a true economist is not fealty to the classical rational-actor model, but rather openness to any technique that would improve understanding of complex human behavior.

Speak, Posner.

110. Hirshleifer, supra note 2, at 53 (emphasis in original).