
Educating *Homo Economicus*: Cautionary Notes on the New Behavioral Law and Economics Movement

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Legal scholars have recently been extolling the explanatory potential of behavioral law and economics. This new scholarship seeks to marry insights from traditional microeconomics with findings from the behavioral sciences to produce a descriptively accurate and predictively powerful account of human motivation and decisionmaking to put in the service of legal policy. I examine the claims being made on behalf of this new approach. I argue that legal scholars cannot simply use behavioral science in the place of standard microeconomics. More specifically, I argue that once empirical findings are incorporated into legal policy analysis, it becomes necessary to forsake aspirations of broad generalizability and predictive determinacy. I conclude that legal policies and initiatives need to be informed by a modest conception of social science. Such a conception acknowledges the limitation of social science knowledge and recognizes that strong causal explanations of human behavior cannot be permitted to supplant normative debate.

In recent years, legal writers have heralded the advent of a new “behavioral law and economics” scholarly movement. As envisioned, this sweeping approach will marry microeconomic insights with empirical social science findings to yield an integrated sphere of economic and behavioral science serving larger social and legal policies. Fledgling work in this area has something to offer everyone: For law and economics scholars, it conserves an account of human agents as instrumentally rational maximizers. It also maintains explanatory commitments to methodological individualism and mathematical modeling. For legal thinkers with a communitarian bent, this new scholarship recognizes the im-

Earlier versions of this article were presented at meetings of the Law and Society Association and the Law, Culture, and Humanities Working Group and at faculty workshops at New York Law School and Chicago-Kent Law School. I am grateful to the participants at these gatherings for their many insightful comments. Thanks also to Ian Ayres, Kathy Baker, Denny Curtis, Ken Dau-Schmidt, Bob Ellickson, Don Green, Claire Hill, Dan Kahan, Richard McAdams, Michael Maurer, Jeremy Paul, Peter Schuck, Richard Schotenfeld, Ben Zipursky, and several anonymous reviewers for their criticisms and suggestions and to Marta Kiszely for her research assistance. Special thanks to Toni Massaro and Susan Silbey. New York Law School provided financial and research support. Address correspondence to Tanina Rostain, New York Law School, 57 Worth Street, New York NY 10013-2960 (email: trostain@nyls.edu).

portance of norms of cooperation in creating and sustaining public goods. It also acknowledges that people are motivated by considerations beyond the pursuit of material ends, such as cultural and social norms. All of a sudden, it is possible to talk about individual preferences and social norms in the same breath, to interweave discussions of efficiency and the expressive function of law. With this newly fused language, theorists of all predilections can converse across political divides while avoiding highly contested and intractable normative issues.

Legal scholars have been extolling the explanatory potential of a unified behavioral law and economics approach to address a host of questions. One strand of this scholarship has imported research from behavioral science—behavioral economics and cognitive and social psychology—to explain various aspects of law, including contract law (Korobkin 1998), tax law (McCaffery 1994), and jury decisionmaking (Jolls et al. 1998), among other areas. Scholars pursuing this approach have also not shied from drawing prescriptive suggestions, arguing that government should use the insights of behavioral science to induce people to engage in socially desirable behavior. Such prescriptions have been offered, for example, in the areas of criminal law and health and safety regulation, where scholars have proposed that regulatory authorities take advantage of human cognitive quirks to influence them to act in ways deemed socially optimal (Jolls et al. 1998; Korobkin & Ulen 2000).

A second strand of the new scholarship has been preoccupied with social processes and phenomena from within a game theoretic model. Legal scholars working in this vein have sought to expand microeconomic analysis to incorporate the functioning of social norms. This approach has been advanced to explain such widely diverse psychosocial phenomena as the dramatic nationwide shift in smoking norms (Lessig 1995:1025–34), the persistence of race discrimination, despite its inefficiencies (McAdams 1995), recycling by wealthy residents of the Hamptons (Sunstein 1996), inner city gang behavior (Kahan 1997), and sumo wrestling practices in Japan (West 1997). Although distinct from law and behavioral science, the law and social norms scholarship shares the goal of unifying microeconomics and empirical findings. In broad terms, it aspires to marry game theoretic insights and empirical social science data to develop a methodology that is far reaching in application while also sensitive to the complexity of social interactions.¹

¹ For the purposes of this article, I refer to the new legal scholarship that incorporates behavioral economics and psychology as “law and behavioral science” and the scholarship that focuses on group processes and social norms as “law and social norms.” I use the phrase “behavioral law and economics” as an umbrella term that covers both these trends.

Scholars working in these fields routinely insist that they are not engaged in a fundamental critique of law and economics; instead, they are offering friendly corrections to enhance the basic model (see, e.g., Korobkin & Ulen 2000:1057; Jolls et al. 1998:1474; Ellickson 1998:546). Consistent with this claim, scholars frame their discussions within an economic idiom, interweaving empirical findings with economic terminology. In defense of this mixing and melding, this scholarship invokes pragmatic considerations: If this approach yields useful descriptions and predictions about human behavior in various contexts, then its lack of theoretical purity is really beside the point. Indeed, its proponents argue, the very strength of this approach lies in its eclecticism (Korobkin & Ulen 2000:1057–58).

In this article, I suggest that the exuberance for law and behavioral science is premature—perhaps even misguided. Portraying varied social-scientific insights as a unified field gives rise to exaggerated claims about the state of current knowledge about human behavior and social interactions and, at times, to misguided prescriptions. The undue optimism that infuses much of this scholarship is reinforced by the economic idiom in which it is couched. Law and behavioral science proponents readily deploy economic concepts and terminology even when economic modeling does not figure meaningfully in their analyses. The language of economics—with its emphasis on formal mathematical concepts, functions, and models—suggests a level of generalizability, predictive determinacy, and control that the underlying empirical findings do not support.

The law and social norms literature raises parallel concerns. This scholarship often underestimates the difficulties of translating back and forth between the simplifying assumptions of rational choice and the complex social situations that are its domain of inquiry. Proponents of this work tend to view social norms in terms of their capacity to solve collective action difficulties. To the extent that this is the exclusive model through which they see group behavior, they end up with an inadequate account of how social norms work. Law and social norms scholarship holds the most promise when its advocates abandon the attempt to produce a single, simple theory of social norms based on the collective action difficulty and instead seek partial, more nuanced explanations, which are evaluated in terms of their empirical basis. When the focus shifts to the empirical soundness of competing accounts, however, formal game theoretic analysis becomes tangential to the enterprise of explaining social norms.

In casting a critical gaze on this new scholarship, I do not intend to understate the centrality of social science research to law. My aim here is primarily to sound a note of caution about the claims being made specifically on behalf of behavioral law and economics. In particular, I want to question whether we are

on the verge of a new, all-encompassing paradigm—as some legal scholars seem to be suggesting. A fundamental premise that informs much of the rhetoric in this area is that “it takes a theory to beat a theory” (Hanson & Kysar 1999b: n.252). In the legal academy, law and economics—an account based on a set of fundamental axioms about human motivation and behavior that has yielded predictions and prescriptions across every area of law—has long been the theory to beat. Having achieved such dominance, it has cast a powerful spell over adherents and opponents alike, who believe that only an equivalently all-encompassing theory can dislodge it. According to this view, if behavioral approaches hope to succeed traditional law and economics, they must pretend to similarly grand ambitions.

If there is one lesson to be drawn from empirical social science research, though, it is that no all-encompassing account of human conduct is likely to be forthcoming. The factors involved in individual decisionmaking and social interactions are too numerous and irreducibly complex. Advocates of behavioral law and economics need to abandon the aim of proposing broad legal prescriptions based on a single paradigm; instead, they must incorporate a modest conception of social science. Such an approach emphasizes the importance of experimenting with proposed legal modifications on a small scale, since predictions based on a necessarily incomplete understanding of human behavior can often lead to unintended and undesired consequences.

I. From *Homo Economicus* to *Homo Psycho-Economicus*

A. *Homo Economicus Simpliciter*

Over the past 40 or so years, law and economics has emerged as a (if not *the*) dominant scholarly movement in the legal academy. Law and economics scholars, borrowing the basic premises and methods from microeconomics, have sought to describe the incentives created by law for self-interested rational actors. The methodological approach of this scholarship—like rational actor theory generally—is deductive. Roughly put, law and economics begins with a handful of simplified assumptions about the formal relations that inhere among the preferences of rational agents and the content of those preferences. From these premises its proponents then seek to derive how varying legal rules and regimes will affect human behavior.

In its axioms and formal approach, much recent law and economics scholarship draws on expected utility theory, the most widely accepted formulation of rational actor theory. The theory describes how agents are to act if their decisions are to be consistent with the axioms of rational decisionmaking. Rational actors

are assumed to have a set of ranked, continuous, and stable preferences that function according to basic logical principles (for example, transitivity) (Plous 1993:81–82). Given a rational actor's preferences, the axioms of expected utility theory allow the prediction of that actor's decisions under varying conditions of choice. To complement expected utility theory's account of decisionmaking, rational choice theorists also adopt a view of how rational actors form their beliefs about the context of decisions, and specifically about how they should reason about the likelihood of uncertain events. Rational actors are assumed to be sophisticated probabilistic reasoners who employ Bayes Theorem to reason about probabilities (Plous 1993:132–33).

Pursuant to the axioms of expected utility theory, a rational actor makes choices so as to maximize his or her utility. In “thinner” versions of rational choice theory, the nature of utility—what it is that rational actors are maximizing—is not specified. (For discussion of the distinction, see Green & Shapiro 1994:17–19.) When the content of a rational actor's preferences is left open, however, the theory is too indeterminate to yield many empirically falsifiable predictions. In a given situation, it may be impossible to determine whether a changed decision over time reflects a violation of the rationality criteria, a change in preferences, or some other phenomenon. (Compare Green & Shapiro 1994:18.) Accordingly, traditional law and economics scholarship usually assumes that utility is synonymous with wealth maximization (Korobkin & Ulen 2000).

Recently, law and economics has appropriated insights from game theory, which draws out the implications of the axioms of expected utility theory for situations involving conflict and coordination difficulties (Baird et al. 1994). Game theory provides a formal analysis of the various strategic choices faced by each player in a game whose payoffs vary depending on the decisions of all the players. The most familiar game is the Prisoner's Dilemma, in which the payoffs of each player are set so that even though it is in the collective interest of all players to cooperate, it is in each individual's interest to defect. Game theorists studying various other scenarios, such as free riding, the Tragedy of the Commons, and assurance, use these games to explore cooperation problems by positing players' payoffs so that each player's optimal strategy is to take action contrary to that which would benefit the group collectively. They employ coordination games to examine the difficulties of players all arriving at the same mutually beneficial strategy. Law and economics scholars have applied the mathematical modeling of free-rider, Tragedy of the Commons, Stag Hunt, and other games to situations in which human beings have divergent interests and limited information and in which they must confront various other barriers to coordi-

nating action in order to investigate the effects of varying legal rules and regimes (Baird et al. 1994).

B. *Homo Economicus* Goes into the Lab

Even as microeconomics has become the primary methodological approach in legal scholarship, empirical research in cognitive and social psychology and behavioral economics has raised serious doubts about the descriptive validity of rational actor models. As a wealth of laboratory research in cognitive and social psychology demonstrates, human behavior systematically diverges from the predictions of rational actor theory. Research in cognitive psychology and behavioral economics establishes that human beings suffer significant limitations in their capacity to assess accurately the significance of information. People reason poorly about risk, tend to jump too quickly to erroneous conclusions from incomplete information, and are otherwise poor statisticians. In short, they consistently fail to determine the most efficient means to achieve their preferences (Tversky & Kahneman 1982a; Camerer 1995:590–616).

In addition, laboratory evidence suggests that the view of human beings as consistently maximizing a set of stable, exogenous preferences over time, in accordance with a utility function, is problematic. Preferences are context dependent in a variety of ways (Tversky 1996). For example, preferences are often determined relative to a particular reference level, usually the status quo, rather than to an absolute outcome level. In areas in which alternatives can be compared quantitatively, people exhibit loss aversion, valuing losses twice as highly as equivalent gains. These phenomena in turn give rise to endowment effects—the most familiar of which is the “buying-selling gap”: People place a higher price on things they already own than they would have paid for them in the first place (Thaler 1992:63–78).

People’s preferences, moreover, are shaped by the very process by which they are elicited. Expected utility theory assumes that the ways in which decisions are presented should not affect choices made. Contrary to the requirement of description and process invariance, experimental evidence establishes that preferences depend importantly on how choices are described. Psychologists have long noted the importance of framing effects (Plous 1993:64–76). One classic study of framing, for example, considered medical decisionmaking. It found that subjects’ decisions consistently varied depending on whether alternatives were cast in terms of survival rates or mortality rates (McNeill et al. 1988). Such framing effects also affect how people consider political and other controversies (Plous 1993:77). The number of options available is another dramatic way in which context affects preferences. Studies have shown that adding a new option to the

menu changes the proportion of subjects who pick one or another of the existing options (Simonson & Tversky 1992; for a recent detailed survey of behavioral research on individual decisionmaking, see Camerer 1995).²

Empirical research also raises doubts about the content of preferences posited by “thicker” theories of rationality. People are not consistently self-interested, as such theories would hold, but have been shown to have other regarding preferences that are seemingly not reducible to material, or even reputational, interests. Such non-self-interested preferences are reflected in conduct governed by social norms, such as norms of fairness. Studies suggest that people will behave consistently with social norms even when such behavior appears to cut against their material and other self-regarding interests (e.g., Thaler 1991: 220–34).

Evidence that people are not perfect utility maximizers, of itself, does not create a problem for the traditional law and economics model. So long as human errors are random, their effects get canceled in an aggregative analysis. Behavioral economics poses a challenge to the standard economic model because it establishes systematic divergences from many of the postulates of the model. Even as these empirical findings cast doubt on the assumptions of traditional law and economics, they offer the prospect of a new improved approach to legal policy. As laboratory studies in behavioral economics demonstrate, various features of decisionmaking can be modeled quite precisely and consistently. The tractability of such results gives rise to the hope that if the assumptions of rational choice are replaced with more accurate findings, a more predictively powerful account of human decisionmaking will emerge (Rabin 1998).

II. *Homo Psycho-Economicus* Goes to Law School

A. The Law and Behavioral Science Movement

The ambition of advocates of the new law and behavioral science model is to develop an approach to legal questions that integrates findings from cognitive and social psychology, of the sort previously described, into an economic framework in order to yield an approach with greater descriptive accuracy and predictive reliability. In a recent article, for example, Christine Jolls, Cass Sunstein, and Richard Thaler have pointed to the many discrepancies between rational actors and real people to argue for a “behavioral approach to law and economics” (Jolls, et al. 1998). Their aim is to develop an approach based on behavioral eco-

² Goffman (1974) offers a classic discussion of how frames organize social experience.

nomics that “allows [one] to model and predict behavior relevant to law with the tools of traditional economic analysis, but with more accurate assumptions about human behavior” (Jolls et al. 1998:1474). In the same vein, Russell Korobkin and Thomas Ulen offer a “blueprint” for a new “law and behavioral science” scholarship (2000:1059). In their proposed approach, empirically grounded findings about human judgment and decision-making are to replace the unrealistic assumptions of the rational choice model. The point of this new movement, these writers insist, is not to displace the law and economics model, but to enhance its descriptive and predictive powers by importing insights from cognitive and social psychology and behavioral economics (Jolls et al. 1998; Korobkin & Ulen 2000).

Much of this scholarship is prescriptive. It seeks to answer the question: Assuming the existence of widely accepted goals, how should legal institutions be structured to induce the greatest degree of socially optimal behavior? The accurate prediction of human responses to various legally created incentives is a *sine qua non* of this enterprise. As Donald Langevoort writes, “Nearly all interesting legal issues require accurate predictions about human behavior to be resolved satisfactorily” (1998:1499). Behavioral research appears to offer the possibility of accurately modeling how human beings will react to varying rules and legal regimes. Significantly for the new scholarship, behavioral research yields replicable results, giving rise to the expectation that the effects of various legal rules and regimes on human behavior can be predicted with a high degree of certainty.

Illustrations of legal reforms based on behavioral science are abundant in the literature, generally taking the form of describing a judgment error or heuristic that has been demonstrated in the lab and suggesting some government action to address it. Thus, in the area of jury decisionmaking, Jolls et al. (1998) argue that jurors, like other people, are probably prone to hindsight bias, the tendency to assign too high a prior probability to an event after it has occurred, which likely affects their determinations of liability in negligence actions. The legal system might therefore manipulate the information that is given juries in negligence cases so that they do not know “how things turned out”; alternatively, the system might alter the standard of proof to neutralize the effect of the bias (Jolls et al. 1998:1527–32). Others, questioning the plausibility of this approach, have suggested that the standard be changed to strict liability so that juries no longer need to assess the prior probability of some event (Korobkin & Ulen 2000:1098–99). Yet a third set of scholars have argued, citing the same bias, that questions requiring the determination of prior probability, such as that of determining gross negligence for purposes of awarding punitive damages, be taken away from

juries and given to judges (who are claimed to be less susceptible to hindsight bias) (Hastie & Viscusi 1998).

Law and behavioral science proponents have made suggestions with a similar tenor in other areas. In the area of health and safety regulation, some have suggested that the government should exploit loss aversion, salience, and other judgmental heuristic and biases to discourage overly risky behaviors (Jolls et al. 1998:1533–37). Others have proposed, alternatively, that because people reason so poorly about risk, the government might take certain decisions involving risky behavior (such as the decision to wear a seat belt) out of the hands of people completely (Korobkin & Ulen 2000:1107). In the area of criminal law enforcement, it has been suggested that the government make use of heuristics—such as the availability heuristic—to mislead would-be criminals into believing that the likelihood of getting caught when engaging in criminal activity is higher than in reality (Korobkin & Ulen 2000:1088–89; Jolls et al. 1998:1537–41; and see Ross 1984:105–8). As this handful of illustrations suggests, the proposals of this new scholarship tend to follow two variations: The government should manipulate the context of decisionmaking to minimize or maximize the effect of systematic errors and biases, or the government should take the decision at issue out of the hands of people all together.

B. But What's Economics Got to Do with It?

To a significant degree, scholars portray the new law and behavioral science model as an approach that integrates behavioral findings in a rational actor model. Once empirical research about human behavior is introduced into the model, however, it is no longer clear that economic analysis has much of a role—if any—to play. As this scholarship illustrates, empirical work in the behavioral sciences can be translated into an economic idiom. This view is still a distance, though, from showing that the rational choice framework is integral to the descriptive or prescriptive work of the project.

Jolls and her co-authors (1998:1475) maintain that their approach is properly described as economics because “it suggests, with economics, that behavior is systematic and can be modeled.” But this is a very broad characterization that describes a host of investigations premised on a natural science approach. In its specifics, the project does not make use of rational actor theory. Richard Posner (1998:1552) notes that Jolls et al. “implicitly . . . define [behavioral] economics negatively: It is economics minus the assumption that people are rational maximizers of their satisfactions.”³ Jolls, Sunstein, and Thaler appear to recognize that

³ To be sure, Jolls and her co-authors do include some economics in their discussion: In particular, they summarize a sophisticated game theoretic analysis by Matthew

rational actors are absent from their account when they describe their view of human motivation: “People can be understood as having preferences for (a) their own material payoffs and (b) those of some others they know, and in addition they have preferences for (c) the well-being of some strangers whose interests are at stake, (d) their own reputation and (e) the kind of person they wish to be” (1998:1494). People’s willingness to cooperate or help others may be a “function of these variables,” as they write, but it is hard to imagine that they mean this in any mathematically precise sense. In any event, they do not provide values for these variables, nor a specific function, (nor could they, seriously) so their reference to “functions” and “variables” is metaphoric. (See Kelman 1998.)

Jolls and her co-authors argue that their approach is an improvement over a traditional law and economics approach because it permits more accurate predictions of how human beings will behave. But there is the rub: Once empirical findings are made a part of the project to enhance its descriptive and predictive power, there may not be any residual role for the original rational actor framework to play. If the rationale for an approach that integrates empirical findings and microeconomics is that the latter has had limited success in describing or predicting human behavior—as its proponents contend—the project’s positive merit comes from the validity of the research about the specifics of human decisionmaking and behavior, not from an abstract model of strategic reasoning based on the assumption that people are self-interested maximizers of their preferences.

The same observation can be made about the approach advanced recently by Russell Korobkin and Thomas Ulen. While they insist that they are enhancing, not discarding, law and economics, they offer a strong critique of rational actor theory that leaves little room for reviving that theory down the road. Once they demonstrate the serious flaws of the rational choice approach, Korobkin and Ulen do not rehabilitate the theory in their discussion of specific policy applications. To the contrary, their principal goal is to show how the findings of cognitive and social psychology yield different—and, in their view, superior—policy recommendations than those of standard law and economics (Korobkin & Ulen 2000).⁴

Rabin, which models belief-dependent preferences to show how concerns about fairness can be incorporated into game theory. Rabin’s formal model and results, nevertheless, do nothing to advance their positive agenda. It illustrates that belief-dependent preferences can fit into a game theoretic model, but as Rabin acknowledges, it doesn’t actually tell us anything about how belief-dependent preferences actually work (Rabin 1993). Most recently, Sunstein has himself raised the possibility that economic analysis does not figure in their approach (2000:9).

⁴ In labeling their approach “law and behavioral science,” Korobkin and Ulen apparently recognize that economics does not play a big part in it. They identify the new movement as a species of legal pragmatism, and acknowledge that it does not (and may never) have a single underlying theory of human behavior (Korobkin & Ulen 2000:1057).

In its specifics, law and behavioral sciences is more accurately characterized as a descendant of law and psychology, a tradition that has long had a place in legal scholarship—if not a seat at the head table. (See, e.g., Langevoort 1998.) Why insist then, as its adherents have, that a new and improved law and economics model has arrived? Perhaps proponents of the new approach, some of whom have done extensive work in traditional law and economics, want to win over mainstream law and economics scholars, who often turn a deaf ear to external critiques of law and economics, by suggesting that their approach is not all that different from what has come before. This new movement also seeks, undoubtedly, to inherit the mantle of legitimacy that traditional law and economics has long enjoyed.

The move to incorporate empirical research, however, represents a significant break with central strands of law and economics theory. Traditional microeconomics can be described as an a priori attempt to derive a mechanistic account of human behavior. Having expressed an actor's preferences in terms of the values of a variable, microeconomic theory has permitted us to predict how that actor should behave under varying conditions of choice (see Rosenberg 1983). In its assumptions and methodology, it represents a fundamentally different kind of enterprise than inductive or problem-driven social science (cf. Green & Shapiro 1994). Whereas microeconomics is predictively determinate, the descriptive and predictive ambitions of empirically based social sciences are more modest. In the next section I explore the implications of this difference for the law and behavioral science movement.

C. How Far Is It Possible to Predict Human Behavior?

The observation that proponents of the new scholarship have mislabeled their project as “economics” is not of itself a foundational critique of the new movement. The use of rational actor terminology, however, bolsters the impression, widespread in this scholarship, that incorporating cognitive and behavioral insights into legal policy is simply a matter of “plug and play.” Adherents of the new scholarship tend to imply that we are on the verge of developing a broad behavioral theory that will provide a wide-ranging account of human decisionmaking and behavior, on a par with the rational actor model of classic law and economics—if we have not already achieved it. In subsuming empirical findings within a microeconomic framework, however, the new law and behavioral science scholarship presupposes a capacity to predict and control human action that the underlying research fails to support.

As researchers in cognitive and social psychology acknowledge, we are still a long way from arriving at a broad, predictively

powerful account of human behavior, and—as a result of certain inherent aspects of human social situations as well as the open-ended and dynamic characteristics of complex natural systems generally—we are not likely ever to achieve it. It is not clear, for one, how easy it is to turn laboratory results into observations about how human beings will behave in “the field.” Individual laboratory studies involve simplified environments, designed to explore one or another feature of human decisionmaking (Roth 1995:23). It is very difficult, however, to aggregate the multitude of experimental results and translate them into predictions outside the laboratory (see Hillman 2000:730–31). Incorporating behavioral insights into legal analysis provides a richer and “truer” account of human decisionmaking and behavior, but not necessarily one with significant predictive power.

Take, for example, the reforms that have been proposed for the problem of “hindsight” bias in jury decisionmaking, mentioned previously. Like much of the scholarship in this genre, these proposals tend to focus on one anomaly and address how jury processes might be altered to neutralize this single effect (e.g., Jolls et al. 1998; Hastie & Viscusi 1998). Jolls, Sunstein, and Thaler suggest that, because jurors are likely to overestimate the likelihood of an event in hindsight, the burden of proof might be raised in negligence cases from a preponderance of the evidence to a clear and convincing evidence standard. (In keeping with their hope that the behavioral findings will provide the basis for precise prescriptions, they propose a mathematical model: If hindsight bias leads jurors *ex post facto* to overestimate probabilities by 50%, then the burden of proof should be adjusted upward by the same percentage.) (Jolls et al. 1998:1530). Like other participants in discussions of jury bias, they tend to give short shrift to the role of other biases and heuristics that may influence juries’ determinations. For example, jurors are likely to be influenced by the availability heuristic—the tendency to assess the likelihood of some event by the ease with which similar instances can be brought to mind (Tversky & Kahneman 1982a:11–14). If, on one hand, instances of similar occurrences come easily to jurors’ minds, then they may assign too great a probability to the event at issue, which would magnify the effect of hindsight bias. If, on the other hand, the sequence of events at issue seems to jurors rare or one-of-a-kind, this heuristic will lead them to underestimate the probability of its occurrence. In such circumstances, the availability heuristic would tend to counter the effects of hindsight bias.

Similar concerns can be raised in connection with various other cognitive biases, such as the representativeness heuristic, which may lead jurors to make inferences about a defendant’s (or a plaintiff’s) past conduct based on his or her resemblance with a class of actors—an association that may have little proba-

tive weight as compared to other factors.⁵ As Richard Lempert (1999) has noted, the effects of various heuristics and biases on jury decisionmaking are not well understood. In addition, whether collective deliberation tends to negate these effects, which have been primarily investigated in individuals, is still an open question. Before laboratory findings can serve as a basis for policy recommendations they must be elaborated through studies of social situations that more closely replicate conditions in the field. Given the paucity of such research, it is too soon to be able to make a case for change (see Lempert 1999).

The problem is not only that research in behavioral psychology is at an early stage, but also that the information generated in laboratory experiments, of itself, has limited direct value for purposes of formulating legal policy. Laboratory studies are designed to isolate the role of individual variables in producing particular effects. The hallmark of such research is control: Experimental conditions are designed and implemented so as to eliminate the effects of extraneous variables. Well-designed studies in behavioral economics and social psychology can identify various conditions that influence mental states or behavior (Roth 1995:23; Aronson 1995:422–23), but such knowledge does not translate into strong causal claims about how people will behave in social settings outside the laboratory.

Laboratory research itself has identified numerous factors that make the translation from laboratory results to the field so difficult. As such research has shown, human decisionmaking is extremely sensitive to context. To be sure, often the contextual factors that elicit a given phenomenon may be highly predictable. In certain circumstances it is possible to foresee with a good degree of certainty how various behavioral insights are likely to play out. In consumer markets, for example, manufacturers and retailers regularly exploit foibles in human judgment and decisionmaking to induce consumers to buy various products. (See Hanson & Kysar 1999a, 1999b.)

The fact that particular heuristics can be exploited to increase the probability of a behavior under certain circumstances does not mean, though, that people's actions can be predicted or manipulated with certainty in specific instances. Indeed, even in consumer markets, an area in which perhaps the largest invest-

⁵ To take another well-described heuristic, people are subject to the representativeness heuristic, roughly stated, the tendency to judge the probability of an event based on its resemblance to a population from which it is drawn. In a famous early experiment conducted by Tversky and Kahneman (1982b), most subjects who are given a description of "Linda" who is "single, outspoken and very bright" and was as a student "deeply concerned with issues of discrimination and social justice" believe that the likelihood that Linda is a feminist bank teller is greater than that she is just a bank teller. Subjects, in assigning a higher probability to the two events together, violated a basic tenet of probabilistic reasoning, which holds that the conjunction of two events is less likely than either event occurring separately. The representativeness heuristic may cause jurors to assign too great a weight to characteristics of a witness or party that have dubious relevance.

ment has been made to control human behavior, the goal is to achieve comparatively greater percentages of market share. (Telemarketing is successful because even a small percentage of sales on a large volume of contacts generates enormous profits.) Nor are such effects invariably obtained. Consider such familiar examples as the occurrence of an unanticipated run on some hot new product, or the colossal failure at the box office of some movie in which a major studio has invested millions of dollars. Although consumer markets create some of the most powerful and sustained incentives to manipulate people's buying habits, consumers routinely confound product sellers' scientifically based expectations.

Social fields display three characteristics that contribute to the fundamental unpredictability of human action: the features of the situation itself, the actor's subjective construal of the situation, and the dynamic interactions of the various forces that are at play in every social situation (Ross & Nisbett 1991:8–17). Law and behavioral science proponents have noted the importance of context in shaping human choice (e.g., Korobkin & Ulen 2000:1102–25) but have not sufficiently appreciated the significance of the other dimensions of social interactions for the problem of predicting human behavior.

How people react to a given situation depends in great part on how they construe that situation, including the behavior and words of those around them. To begin with, people's use of basic and familiar concepts and categories exhibits a significant degree of intra- and inter-subjective variability. As the complexity of a situation increases, the likelihood decreases that it will be judged to be the same by two different people (or even the same by one person on two different occasions). Lee Ross and Richard Nisbett (1991:68–69) note,

First, there is significant variability in a given person's construal of events, enough to lead us, just on the grounds of interpretive instability, to expect that there will be nontrivial behavioral variation in behavior across two objectively almost identical situations, to say nothing of the variation from one situation to another that is merely similar. Second, there is very substantial variability from one person to another in the meaning of rather fundamental concepts. Hence any two people are likely to interpret the same situation in somewhat different ways. . . . A great many important phenomena derive from the variability of construal within a person and from the differences in construal between people on any given occasion.

Social processes also contribute importantly to variability in judgments and behavior. Social psychologists have described a wide range of socially based "construal processes" that shape how people perceive the situations in which they find themselves. A subject's judgments are profoundly influenced by the responses

of other participants, other available information, and their own evaluations of the character and actions of other participants. To take one simple example, studies have shown that when subjects are told that anonymous peers rank the profession of “politician” highly, their own rankings conform, and their rankings likewise conform when they are told that peers have ranked “politician” at the bottom. As interviews with the subjects established, they did not change their views of politicians generally or of any politician in particular. (Nor were they succumbing to peer pressure. They were assured that their own rankings would be kept anonymous.) More fundamentally, the rankings of their anonymous peers served to define for the participants the meaning of the term “politician”—which in one context had a powerfully positive connotation and in the other a powerfully negative one (Ross & Nisbett 1991:70–71).⁶

Another characteristic of social situations, which they share with complex systems generally, is that they exist in a state of dynamic tension. Human behavior is the product of various factors that together make up a dynamic field, in the sense that “the state of any part of the field depends on every other part of the field” (Ross & Nisbett 1991:14, quoting Lewin [1997 (1951)]). A social situation is constituted by a multitude of forces, some of which support each other, others of which oppose each other. As a consequence, large-scale interventions of one type may have small effects, whereas much smaller interventions of another sort may have dramatic effects. As Ross and Nisbett (1991:15) note, “Quasi-stationary equilibria can be hard to change because of the balance of opposing forces that maintain, . . . in a sense overdetermine, the status quo. On the other hand, very dramatic and widespread changes in the system can sometimes result from the introduction or alteration of seemingly small and inconsequential forces.” The social world, like the natural world, is subject to “butterfly effects.” According to the familiar aphorism, the wings of a butterfly beating on one side of the globe can cause discernible weather effects on the other side. In the same manner, small indiscernible actions in the social world can have profound and broad-reaching effects. Once the complex interactive nature of social interactions is recognized, it becomes necessary to abandon wide-scale prediction of human behavior as an unrealistic goal (Ross & Nisbett 1991:17).

The observation that the social sciences have met only modest predictive success does not imply that they have not met the criteria of true science. With their low predictive power, the so-

⁶ Ross and Nisbett summarize the work of Solomon Asch (1987[1952]) here. When Ross and Nisbett first ventured into social psychology, they attributed its lack of predictive power to the immaturity of the field. After many years of research, though, they have concluded that the complexity and dynamism of social situations make accurate prediction of individual behavior impossible (Ross & Nisbett 1991:6,17).

cial sciences do not fare worse than the natural sciences, which, in many circumstances, have relinquished the ambition of developing a mechanistic account of the behavior of objects in the natural world. With the advent of chaos theory (Gleick 1987), natural scientists have come around to the view that the ability to predict the behavior of complex systems, such as meteorological or ecological systems, is very limited. As in the case of the natural sciences, the inability to predict how human beings will act in a given situation does not preclude the possibility of developing explanations of human behavior (see Little 1991; McIntyre 1996:74–75).⁷

When proponents of the new scholarship insist on a fundamental continuity between the law and economics model and the law and behavioral sciences model, they tend to overlook core differences in assumptions and methods in both approaches. Much law and economics, which is based on rational actor theory, offers a fundamentally deductive approach to legal policy. (See, e.g., Baird et al. 1994.) Microeconomics shares important features with mechanistic sciences, such as Newtonian physics and evolutionary biology, which are based on equilibrium analysis (for details, see Murphy 1996; Rosenberg 1983). At the theoretical heart of these research programs is the “extremal” principle that “a system’s behavior always minimizes or maximizes variables reflecting the mechanically possible states of the system” (Rosenberg 1983:662). As in Newtonian physics and evolution, the relationships among the objects of inquiry in the rational actor framework can be expressed through the language of differential calculus. Insofar as these approaches are fundamentally mechanistic, they aspire to predictive determinacy: In an extremal approach, it is possible to determine how the objects of inquiry will behave given any state of the system.

Social and cognitive psychology and other social sciences that proceed inductively from observations of human behavior suggest a considerably more complicated picture.⁸ Such inquiries generally focus on “middle range” theories—theories that fall short of all-inclusive systematic attempts to explain observed uniformities of human behavior with a single set of laws (Little 1991:226). Because such theories are qualified *ceteris paribus*, they do not pretend to predictive determinacy.

Indeed, even well-established theories can only account for a small percentage of the variance found in research data. Statisti-

⁷ The similarities between social and natural systems in this regard permit me to side step the ongoing debate as to whether social events are intrinsically less susceptible to scientific treatment than natural events. (Compare Taylor [1971] and Scriven [1964] with McIntyre [1996].) Even if one insists that social systems exhibit no greater degree of complexity than natural systems, the task of prediction is not made easier.

⁸ Another way to contrast law and economics theory and law and the behavioral sciences theory is as “method driven” as opposed to “problem driven” (see Green & Shapiro 1994).

cal investigations of field data typically show that a particular circumstance increases the likelihood of an event. Determining that some circumstance has such statistical relevance, however, does not imply that it will cause the effect, in the sense that one can predict that the event is likely to occur in its presence (Little 1991:6). In sophisticated quantitative models, conditions that have been found to be relevant, i.e., have an effect, generally account for less than 50% variation in a dependent variable, and typically it is less than 30%. In other words, the best empirical social science models cannot explain most of the variation seen in the variable under investigation. Inductively based social science research may illuminate the various factors that underlie a given social phenomenon but will rarely establish its causes (Rein & Winship 1999:40–42).

Given the differences between microeconomics and empirically based social science research, the law and behavioral science movement needs to relinquish its ambition to offer broad reforms of the legal system based on a single empirically generated account of human behavior and must settle instead for a more modest agenda. The intractable difficulty of predicting human behavior counsels against adopting sweeping changes and in favor of experimenting with small interventions whose outcomes are carefully studied to see whether they might be applied to other, similar situations (Ross & Nisbett 1991:204–12; cf. Massaro 1997, 1999).⁹ The predictive limits of empirical research favors an incremental, highly contextual approach to developing new legal initiatives intended to alter people's behavior.

Before exploring the implications of a modest view of social science for formulating legal policy, it is useful to consider social norms theory, the second branch of behavioral law and economics. This theory seeks to incorporate social phenomena into a game theoretic account of human motivation. As I argue in the next section, the more true to actual social phenomena this theory attempts to be, the smaller a role there is for formal game theoretic analysis. As a consequence, the insights of social norms theory ultimately need to be evaluated by the criteria of empirical social science. In its development, the theory thus also points in the direction of adopting a modest view of social science.

⁹ Toni Massaro (1999) makes a related observation in connection with the shaming sanctions proposed by law and social norm theorists focusing on criminal law. Shame, as she describes, encompasses a range of highly complex phenomena whose behavioral effects are impossible to predict with any certainty. This variability argues against current broad proposals for shaming sanctions, which presuppose that shame is a uniform emotion with a predictable deterrent effect.

III. *Homo Economicus* Gets a Social Life

Whereas one strand of behavioral law and economics scholarship has effectively eschewed abstract microeconomic analysis in favor of an empirically based approach, a second strand has sought to remain faithful to a game theoretic methodology, while enriching the framework by incorporating social processes and, in particular, the operation of social norms. The law and social norms scholarship has proceeded from the insight that legal rules do not operate in a vacuum, but interact with informal social sanctions to influence individual behavior. Although the importance of social phenomena has long been recognized by scholars working in the law and society tradition (among others), it is only in the past few years that law and economics scholars have focused on the incentives created by social norms (e.g., Ellickson 1991; Cooter 1996; McAdams 1997; Posner 2000). For these scholars, the challenge has been to develop a game theoretic account of social norms that can be used to deepen the economic analysis of law.

Focusing on social norms and other social processes, however, highlights a significant difficulty for a method of analysis based on game theory. As a set of abstract tools to model strategic behavior, game theory is underdetermined. A host of different games, with varying implications, can be plausibly invoked to describe a given social situation. A situation may involve collective action problems, coordination problems, a mix, or display the features of some other game. Game theoretic accounts of social norms, nevertheless, generally assume that identification of the formal structure of a given social situation is straightforward. As Edna Ullmann-Margalit observes, a game theoretic approach is an explicatory rather than an explanatory endeavor (1977:1). An exercise in “speculative sociology,” such a project aims to offer a rational reconstruction of how social norms might have emerged, assuming that social situations exhibit certain formal structures, not an account of how they actually did emerge (Ullmann-Margalit 1977:1–2). Accordingly, the empirical assumptions on which the project is based are taken as given. This may be a plausible way to approach certain simplified social situations that reflect the structure of basic games such as the Prisoner’s Dilemma, Tragedy of the Commons, Stag Hunt, or Chicken. To the extent that social situations do not display self-evident structures, however, the application of game theoretic insights becomes more problematic.

Law and social norms scholarship has not focused on this difficulty. Instead, it has tended to emphasize a single feature of social norms—their capacity to solve collection action difficul-

ties—to the exclusion of other functions they might play.¹⁰ Following recent trends in positive economic, political, and social theory (e.g., Olson 1971; Axelrod 1984; Elster 1989; Coleman 1990), this work takes for granted that individual self-interest always diverges from group interests—an assumption that gives rise to the collective action problem. If every group endeavor is potentially prey to a collective action difficulty, it becomes necessary to explain the high degree of observed cooperative behavior. To account for cooperation, law and economics scholarship enlists social norms, which compel people to act cooperatively, despite their individual self-interest. While solving certain collective action difficulties, however, social norms create others. Specifically, collective action difficulties inhere in the mechanisms by which social norms are enforced.

Recent law and social norms work has focused on solving this second-order collective action problem. When the various solutions offered to this problem are unpacked, it becomes clear that the problem of cooperation may be unsolvable unless self- and group interests are often aligned. A closer examination of these attempted solutions, furthermore, reveals the need to shift from abstract attempts to explicate cooperation to the development of empirically based accounts of the conditions that lead to cooperative behavior.

A. The Problem of Cooperation

The account of group behavior offered by the law and social norms scholarship goes something like this: Groups come into being to confer benefits on their members that are not available to anyone acting independently. When members of the group contribute to the creation of public goods, they necessarily incur costs that are offset by the value of the group benefit produced. These costs create incentives for members of the group to free-ride—to enjoy the benefits of cooperative behavior while avoiding its costs. Since it is always more rational to get something for free than to pay for it, cooperation in this framework becomes a puzzle that needs to be explained (Olson 1971).

Pursuing this reasoning, law and economics scholars—like the theorists working in positive political and social science on whose work they draw—are faced with accounting for a great deal of social interactions and activities. People engage in cooperative endeavors much more than a model that posits that self-interest diverges from group interests would predict. They vote,

¹⁰ In her classic treatment of the emergence of norms, Ullmann-Margalit (1977:134–97) demonstrates that social norms can arise to address at least three types of social problems: collective action situations, coordination situations, and inequality situations. In the last type of situation, norms emerge to sustain social and other inequalities. As she observes, these categories do not necessarily exhaust the possible types of situations that might give rise to social norms (1977:vii).

obey laws, participate in collective projects, join organizations, protect the environment, and contribute to public radio, even when their interests, as construed in the model, lie in a different direction.

To address this problem, recent law and economics scholarship has focused on social norms. Scholars of this bent define “social norms” as behavioral regularities that are experienced as obligatory (Cooter 1995:1656; McAdams 1997:350–51). One frequently invoked example is the act of a man removing his hat in church, which reflects a social norm, as opposed to removing it in a hot boiler room, which does not. Another familiar example is tipping in restaurants: A patron will leave a gratuity for a server at a roadside diner even if the patron has no prospect of ever returning. It is the obligatory nature of social norms—the experience of social norms as requiring one to act against his or her short-term self-interest—that allows them to serve as the “solution” to the problem of collective action. Even as they solve this problem, however, they become a phenomenon that itself needs to be explained: Given that rational actors are fundamentally self-interested, how does it come to be that they feel obliged to act against what they perceive as their interest?

The initial law and economics account of social norms, reflected, for example, in Robert Ellickson’s (1991) *Order Without Law*, is that they were enforced through external incentives. If a member of a community violates a social norm—allows her children to be disruptive or permits her dog to stray into a neighbor’s yard—she will bear the cost of an informal sanction, unpleasant neighborhood gossip, or, in more extreme cases, shunning or ostracism. The fundamental difficulty with this theory was that, although it provided a straightforward explanation of why people obey primary social norms, it did not address the question of what incentives people have to enforce social norms against violators. As Jon Elster (1989) has pointed out, such enforcement is not cost free. Punishing someone for violating a social norm (by gossiping about her, criticizing her, or ostracizing her) carries a risk of retaliation by the sanction’s target. According to the logic of game theory, a rational actor would prefer to free-ride on the punishments meted out by others than to bear the cost of imposing the sanction herself. Even if the motivation to sanction a norm violator might be explained by external incentives—people think highly of people who informally sanction others for violating norms—the motivation for expressing such approval cannot, in turn, be reduced to external incentives. The collective action problem, solved on the level of primary norm enforcement, reemerges at the next level, or, if solved on the secondary level, at the next level after that (Elster 1989).

Three basic approaches have been suggested in the legal scholarship to solve the problem of norm enforcement: internal-

ization (Cooter 1995), the desire for esteem (McAdams 1997), and signaling (Posner 1997, 1998, 2000). Internal weaknesses in the first two attempted solutions demonstrate, in different ways, the virtues of abandoning the collective action problem as the sole frame of analysis and shifting to a more-nuanced, empirically grounded account of social norms. Unlike these accounts, Posner's account does not claim to offer a complete theory of social norms. In addition, Posner views the strength of his approach in its empirical plausibility. His view thus represents a shift away from a deductive model of social norms in the direction of empirically grounded explanations.

B. Internalization

In Robert Cooter's view, social norms are internalized and therefore do not need to be enforced through external incentives. Because internalization eliminates the cost associated with norm enforcement, the problem of free-riding on the enforcement efforts of others disappears. Guilt and other psychological processes, developed through childhood inculcation, take over the function of punishing people for violating social norms (Cooter 1995). Thus the answer to the question "Why do people leave a gratuity in a restaurant to which they will never return?" is that they have internalized an obligation to tip servers, and will feel bad if they do not.

Internalization, as an explanation of how social norms work, has the significant virtue of fitting with much inner experience. But it only succeeds in solving the problem of collective action by fundamentally revising the terms in which the problem was initially posed. If we posit internalization as the explanation of how social norms operate, then it is no longer right to characterize every social situation as involving an inherent collective action difficulty. If we obey social norms as a result of internalization processes, then we must have other regarding preferences. When we act in accordance with internalized social norms, our individual preferences are not diverging from the interests of the group.

This point becomes clear if we consider the specific mechanism by which internalization "solves" collective action difficulties in game theoretic terms. According to the internalization view, norm violation creates internal costs, so external enforcement is unnecessary. Introducing guilt and other psychological phenomena solves the "puzzle" of cooperation by altering the payoffs of the game. In a Revised Prisoner's Dilemma, for example, each prisoner now feels guilty about snitching on her accomplice, so they both hold out and escape conviction, to their mutual benefit. In terms of payoffs, the burden of guilt counteracts the benefit of lighter sentences, so the total costs of confessing

now outweigh the costs of holding out.¹¹ However, if we change the payoffs of defecting, we are still not “solving” the dilemma. Instead, we have eliminated it by altering the initial conditions that gave rise to the problem. To put the point more broadly, we can make collective action difficulties disappear if we replace the assumption that individual preferences diverge from collective interests with the contrary assumption that individual preferences and collective interests will often converge.

It is not difficult to come up with a cooperative game in which self- and group interests converge. Consider, for example, the game of “Reaching for the Check.” In this game (which holds no great theoretical interest, as far as I can tell), each friend obtains the highest payoff if both immediately reach for the check after it has been brought to the table. In addition, a friend who immediately grabs the check gets a very high payoff, even when the other one hesitates—the satisfaction of having acted generously, the pleasure in demonstrating one’s high moral caliber, and perhaps also the opportunity for thinly veiled sanctimony, all combining to outweigh any pecuniary loss from paying the whole

¹¹ A normal form matrix of the traditional Prisoner’s Dilemma is represented as follows:

Assuming the negative payoffs represent positive years in jail (e.g., “-2” represents two years in jail):

		Prisoner 2	
		Remain Silent	Confess
Prisoner 1	Remain silent	-2, -2	-10, 0
	Confess	0, -10	-6, -6

Prisoner’s Dilemma *Payoffs: Prisoner 1, Prisoner 2*

Prisoner 1 reasons as follows: If Prisoner 2 is silent, then my payoff is higher if I confess (0 years being better than -2). On the other hand, if Prisoner 2 confesses and I am silent, my payoff is worse (-10) than if I also confess (-6). Thus confessing, a.k.a. “defection,” is a strictly dominant strategy, meaning that whichever option one player chooses, defection is the best response of the other.

A normal form matrix of the Revised Prisoner’s Dilemma is represented thus:

		Prisoner 2	
		Remain Silent	Confess
Prisoner 1	Remain silent	-2, -2	-10, (0 + -5)
	Confess	(0 + -5), -10	(-6 + -5), (-6 + -5)

Revised Prisoner’s Dilemma *Payoffs: Prisoner 1, Prisoner 2*

When guilt pangs from confessing result in an added payoff of -5, keeping silent becomes the dominant strategy. Both prisoners accordingly remain silent, and they beat the rap. Cooter (1996), who invokes internalization to explain cooperation, acknowledges that it works by changing the payoffs, but he does not explore the broader implications of the move to a psychologically thick self for the continued viability of the Prisoner’s Dilemma as an explanatory framework.

Note that this is not the only way to model the process of internalization. A more-sophisticated psychological game theory model might use belief-dependent preferences (Rabin 1993).

cost of dinner.¹² This game has a strictly dominant strategy, which is Reach. Put differently, Reach will obtain the highest payoff (compared to the other strategies available), no matter what strategy the other player adopts. This strategy also happens to yield the highest collective payoff.¹³

As this game and the Revised Prisoner's Dilemma illustrate, if internalization is the solution to the puzzle of social norms, then the situation did not really present a collective action problem to begin with. From the larger perspective of trying to obtain a deeper understanding of social behavior, incorporating psychological processes renders the game theoretic framework beside the point. The original game theoretic analysis does not contribute to understanding compliance with social norms. Instead, it is psychological processes that do this work.

Putting the point more broadly, the move to internalized norms is no small correction; it marks a significant departure from the transparent rational actor upon which the model was initially premised. Whereas we started with simple utility-maximizing calculators who made all decisions by comparing different payoffs and whose moves could accordingly be represented mathematically, we now have "thick" selves who engage in complex psychological processes, many of which are not accessible to consciousness (Cooter 1996:1661–62). In contrast to the game theoretic approach, the internalization solution acknowledges that human beings have specific psychological attributes that are relevant to whether they will or will not comply with various social norms.¹⁴ Explaining cooperative behavior, in this account, turns out to require empirical investigation of these complex phenomena.

¹² Thus:

		Friend 2	
		Reach	Don't Reach
Friend 1	Reach	10, 10	4, 0
	Don't Reach	0, 4	2, 2

Reaching for the Check *Payoffs: Friend 1, Friend 2*

Other motivations, for example, a concern with appearing on an economically equal level with one's dining partner, may also be at work.

¹³ This type of game might still present a coordination problem, which arises after both diners have reached for the check at the same time. Various social norms have evolved to resolve how it should be paid, such as splitting it down the middle or alternating turns.

¹⁴ The late James Coleman, notably, acknowledged that incorporating internalization undercuts the theory's commitment to the rational actor as the fundamental unit of analysis (1990:292–93).

C. Esteem Theory

A second approach to circumventing the second-order free-rider problem, advanced by Richard McAdams (1997), is to argue that norm enforcement does not carry costs. Drawing on a theory propounded by Philip Pettit (1990), McAdams traces the origin of social norms to the universal competition for esteem. According to McAdams, people want to be seen as heroes; they want to compete for the high opinion of those around them by engaging in behavior that is generally accepted as commendable, even at the risk of incurring significant material costs. From the point of view of the beneficiaries, bestowing esteem on those who engage in beneficial behavior (and denying it to those who do harmful things) are cost free. Social norms come into being, McAdams argues, because heroes raise the reputational benefits of engaging in approved behavior. As more and more people conform to such behavior, the reputational cost of noncompliance increases: A social norm emerges.

On its face, the esteem theory appears to give an account of external norm enforcement while avoiding second-order free-rider difficulties, but a closer look at the theory suggests that it cannot quite pull this off. In McAdams's argument, people compete for esteem; that is to say, people want more rather than less of it; and they measure how much esteem they enjoy in comparison to others (1997:357). If esteem is a relative good, as McAdams acknowledges, then bestowing it—and its corollary, withholding it—necessarily involve some costs. Because everyone wants to be held in high esteem, those who are not may feel the absence of esteem as criticism, and they may get angry and seek to retaliate. As long as conferring esteem carries some cost—even if only slight—it is rational to free-ride on the efforts of others by not bestowing esteem at all (or by bestowing it in equal measure to everyone). We are back where we started, unable to give an account of why a person would selectively bestow esteem when the potential costs are higher than if one esteems everyone equally. Putting the point more generally, if we follow the collective action problem to its logical limit, it would seem that we are bound eventually to bump up against the impossibility of generating an account of collectively beneficial behavior.¹⁵

An alternative view is that people have preferences for bestowing esteem on people who engage in beneficial behavior, so that the *net* cost of such esteem is negligible. (In other words, the payoff from conferring esteem to particularly praiseworthy people—even with the risk that nonbeneficiaries will retaliate—is higher than withholding it.) But this description of the theory lets the camel's nose under the tent. It is equivalent to positing

¹⁵ I take this to be the fundamental point of Elster (1989).

that people have preferences for engaging in behavior that benefits the group, so that in certain situations there are strong incentives to contribute to group efforts (in this instance, bestowing esteem on benefactors). Presumably in such situations, free-riding turns out to be not as much fun as doing one's share.

Esteem theory runs into difficulties in its account of the operation of social norms, because it insists that they be viewed exclusively in terms of their role in solving collective action problems. It is not clear, though, that this function of social norms should be privileged over other arguably equally important functions, including solving coordination problems.

Consider, for example, the grammatical and syntactical rules of language, which—insofar as they are behavioral regularities that are experienced as obligatory—are plausibly characterized as social norms under the definition used by social norms theorists. Linguistic norms do not appear to be solutions to prehistoric collective action difficulties (supposedly experienced by Paleolithic rational actors). Instead, from an evolutionary biology perspective, language is an amazing solution to a host of coordination problems. The adaptive value of language is charmingly illustrated by the Stag Hunt, a game that presents coordination problems. In this story, prehistoric people who could talk and agree to hunt stag together were going to be more successful—live longer, have more opportunities to pass on their genes, etc.—than those who, because of their inability to communicate, were trying to survive on a meager fare of hare.¹⁶

As recent empirical work establishes, human beings come into the world already equipped with a highly developed capacity for language. The propensity to recognize and learn grammar and the myriad other rules of language is part of our genetic makeup (Pinker 1994). Just as human beings are born with a capacity to acquire language, so they may very well have a built-in propensity to want to engage in all sorts of social behaviors, including a tendency to internalize social norms. If people are

¹⁶ In this game the hunters must both hunt in order to catch a stag. Each hunter does better sharing half a stag than having a whole hare to herself:

		Hunter 2	
		Stag	Hare
Hunter 1	Stag	10, 10	0, 8
		Hare	8, 8

Stag Hunt Payoffs: Hunter 1, Hunter 2

In the Stag Hunt, there is no strictly dominant strategy. On one hand, if one player plays "stag," the best response for the other player is to play "stag." On the other hand, if one player plays "hare," the best response for the other player is to play "hare." This game is described as having two pure "nash equilibria"—two strategy combinations that encompass the best response of one player to the other (stag, stag, and hare, hare)—as well as a mixed nash equilibrium, in which each hunter randomizes between hunting stag and hare.

hardwired so that their payoffs from cooperative behavior often exceed those from defection, then cooperation is not such a big puzzle after all (Dugatkin 1997).¹⁷

The preceding discussion is not intended to deny that people value esteem or that they frequently comply with social norms to obtain reputational benefits. The point, rather, is that esteem theory, on its own, may not succeed in solving the second-order free-rider problem inherent in the law and economics treatment of social norms. At some point in the analysis, it appears necessary to posit preferences to engage in collectively beneficial behaviors. Given these difficulties, it may be more fruitful to abandon the effort to understand social norms exclusively through the lens of the collective action problem.

D. Signaling Theory

The third approach offered to explain the operation of social norms is “signaling” theory. According to Eric Posner (2000), who has pioneered this approach in legal scholarship, people obey social norms to communicate their willingness to enter into long-term cooperative relationships. They follow (and enforce) social norms to show that they are willing to bear significant costs today to obtain the benefits of relationships in the future. In contrast to other law and social norms theorists, Posner does not aspire to provide an overarching theory that will account for the origin of all social norms. (He acknowledges that his theory does not get him very far with the patron who tips the server at a roadside restaurant.) His theory is meant to shed light on many varied social norms, but not to explain all of them. Consistent with this ecumenicism, Posner does not insist that the sole function of social norms is to resolve cooperation difficulties, but recognizes that they also function in facilitating coordination (2000:45–46).

Insofar as Posner’s theory is not meant as a comprehensive account of the origin of social norms, it is not vulnerable to the same types of objections as single-minded theories that focus exclusively on the problem of collective action. Instead, the strengths and weaknesses of his account turn on how plausibly it fits and illuminates the social phenomena at issue. To evaluate his theory, it would be necessary to consider in detail the many and far-ranging phenomena to which he applies it, including gift-giving, criminal law, and family and contractual relations. I

¹⁷ The phenomena might be accounted for as “by-product mutualism” or “non-cost” cooperation (Dugatkin 1997:31–34). Another possibility is that such preferences are consistent with evolutionary theories based on group selection (Sober and Wilson 1998). When I invoke evolutionary biology, I do not intend to weigh in on its explanatory merits, but only to suggest that it provides competing views of cooperation. The debate about what psychological features can and cannot be explained from this perspective is likely to rage for some time to come. Sterelny and Griffiths (1999:313–36) provide a current, particularly lucid, assessment of the controversies.

have confined myself to raising some questions about a few of his applications.

Posner's approach is particularly compelling in the context of gift-giving behavior. As he notes, people engage in all sorts of gift-giving rituals that are not intended to increase the welfare of the recipients. Among the many examples he discusses is charitable giving in the United States (Posner 2000:60–62). Concern for social utility does not drive much charitable giving. Donors make gifts that are intended to enhance their status or signal their "type." As a consequence, many rituals have arisen around such giving that do not reflect the most socially beneficial use of resources. As he observes, charities that can name a building after a donor (or otherwise memorialize the donor's generosity) have a significant edge over those charities that cannot, such as anti-poverty charities. Although public prominence is a significant asset in attracting donors, it is not meaningfully correlated to social value. On one hand, Posner's signaling account goes a long way in shedding light on the dysfunctional aspects of charitable giving, and of gift-giving practices generally. On the other hand, his application of the theory to all gift-giving seems on occasion stretched. He argues, for instance, that anonymous giving is a signal to those who know the identity of the giver. (For example, it is a signal to the spouse of the donor.) His insistence on seeing anonymous giving in signaling terms thus prevents him from considering other explanations for this apparently puzzling phenomenon.

Although Posner uses economic concepts and terminology, his approach marks a shift away from a focus on abstract models of social norms to an emphasis on elucidating the observed details of social behavior. (Indeed, his argument does not fundamentally turn on economic modeling.) In this project various types of preferences—or motivations—are likely to come into play. Thus, once we assume that rational actors care about future opportunities for exchange, it is not a big step to assume other types of preferences, particularly when it comes to social norms that do not fit the signaling theory. There are, for example, various social norms that govern disposing of one's estate after death, a phenomenon that signaling—and rational actor theory generally—does little to explain (see, e.g., Abelson 1996). As Posner's approach suggests, the utility of the methodology one adopts in this endeavor will derive from its capacity to explain specific social phenomena.

As Posner's discussion illustrates, law and social norms theories are likely to yield more fruitful insights in the long run to the extent that they relinquish the collective action problem as the lens through which to describe all social relations. Once we recognize social interactions as potentially exhibiting a variety of game structures, we must shift the inquiry away from developing

deductive explications of social interactions to developing empirically based explanations. A more empirically adequate account of human motivation would acknowledge that a mix of motives operates in human behavior, including cooperation, altruism, and self-interest (Little 1991:65).

A shift to an empirically based understanding of social norms has important implications for research methodology. People follow—or disregard—social norms because such norms carry certain meanings (Harcourt 2000). To return to the example of tipping a server in a restaurant, the question of why this practice is followed cannot be satisfactorily answered unless we investigate what the practice means to subjects who engage in it. To put the point more broadly, to understand how social norms function, it is necessary to understand their social meaning. As Bernard Harcourt (2000) has cogently argued, “[n]orm-focused scholarship is best understood as a type of constructivist social theory. The literature attempts to explain behavior by focusing on shared interpretations of social practices. . . . These shared interpretations are socially constructed. . . , and they move social actors to behave in certain ways.” (186 [references omitted]). This interpretive turn signals the importance of combining quantitative and qualitative approaches to develop richer understandings of how social norms operate (Harcourt 2000:194). The fundamentally subjective nature of social norms also weighs in favor of a modest conception of social science. As noted above, quantitative field studies, of themselves, only rarely support strong causal claims. Although incorporating qualitative investigations is likely to produce a fuller picture than quantitative studies alone, these approaches, even when combined, are not likely to yield data that would permit strong causal reasoning. In the face of the social sciences’ inability to provide clear-cut causal explanations of social phenomena, it is still necessary to adopt legal policies to address problems at hand. The tentative and experimental nature of such policies, nevertheless, must always be kept in mind.

IV. Conclusion: Toward a Modest Conception of Social Science

The aspiration of scholars of behavioral law and economics is to provide an approach to legal policy that avoids the limitations of standard law and economics. Rather than relying on an abstract account of rationality, proponents of the law and behavioral science model urge the introduction of empirically based features of human decisionmaking. In a parallel development, law and social norms scholars are moving away from an abstract model of collective action toward theories that take into consideration the multiple roles of social norms and the complexity of social behavior. The move to an approach that incorporates dif-

ferent understandings of human decisionmaking and social interaction holds great potential. Basing legal policy on empirically valid accounts of human motivation and behavior promises to produce innovative initiatives that may succeed in areas—such as health and safety regulation, products liability law, and criminal law—in which traditional law and economic methodology has not proven very fruitful.

Although this turn to empirical social science is a positive development, the shape that this renewed interest often assumes in the behavioral law and economics movement is problematic. One concern stems from the rational choice idiom adopted in this literature. As I noted previously, this scholarship frequently borrows concepts and language from rational choice theory, even when economic analysis does not play a role in its arguments. Translating social and normative phenomena into categories derived from a rational actor model has expressive implications. As critics have noted, this analytic framework privileges self-interest and instrumental reasoning over other forms of thinking, which are relegated to the realm of the “irrational.” By treating self-interest and instrumental rationality as the default mode, the model risks sending a signal that human beings should focus on the strategic advancement of their individual preferences to the exclusion of other ends. Simply put, it may encourage a “what’s-in-it-for-me” attitude toward social interactions and relations (e.g., Abelson 1996).

At the same time, it lends legitimacy to the view, implicit in much of the new scholarship, that law is primarily a tool for social control, whose efficacy turns on the covert manipulation of people. The thrust of much of this scholarship is how to induce people to behave in accordance with predetermined policies set by government, which is conceived as a controlling, albeit benevolent, force outside their power. An unintended effect of the behavioral law and economics model may be that it undermines the very social structures and commitments it is seeking to shore up.

These concerns are not so far-fetched. Laboratory research has demonstrated in a variety of ways that it is possible to induce people to think and behave in self-interested, instrumental terms. How an issue or problem is phrased can influence whether people perceive it in terms of their self-interest or, on the contrary, as raising collective concerns (Abelson 1996:27–30). Public goods experiments also demonstrate that people’s willingness to contribute to the group interest can be made to vary widely with small alterations in laboratory conditions. Under some circumstances, people will contribute virtually nothing toward the group interest; in others, almost all subjects can be induced to contribute (Ledyard 1995:172).¹⁸ Experimen-

¹⁸ Studies also suggest that training in economics may lessen people’s willingness to contribute to public goods (Frank et al. 1993).

tal research thus seems to suggest that most people are not either fundamentally self-interested or altruistic, but, instead, have a mix of motivations, which different situations can elicit. Insofar as the behavioral law and economics approach adopts the language of instrumental self-interest, however, it may be contributing to the prevalence of a self-interested mind-frame (Abelson 1996).

Beyond the specific concerns raised by the adoption of rational actor rhetoric, there is the more general worry that proponents of behavioral law and economics are promising more than this approach will be able to deliver. Unlike traditional law and economics, which produced a very powerful theory that was able to generate descriptions and predictions in every area of law, empirical social science knowledge cannot provide a big all-purpose theory. While social scientists seek to impose order on the “buzzing blooming” confusion of human experience, their efforts will fall short of deriving strong causal accounts upon which to base predictions of human behavior. Proponents of behavioral law and economics, by suggesting otherwise, risk overselling their approach. A proposal’s failure to produce the anticipated results can result in the loss of credibility of law and social science-based approaches more generally.

A further problem with strong causal reasoning in behavioral law and economics—as in the social sciences generally—is that it displaces normative questions and debate. As Martin Rein and Christopher Winship have argued, in providing an objective rationale for a proposed policy, strong causal analysis eliminates the need to consider other factors, and in particular normative considerations, that favor or militate against implementing that policy (1999:42–45).¹⁹ This is a risk, for instance, of proposed reforms of the civil justice system based on behavioral research. Law and behavioral science proponents have suggested that parties may fail to settle cases even when reasonable terms are available because of framing effects, which lead them to misconstrue the value of the proposed settlement. They then rely on the supposed causal nexus between failure to settle and distorting cognitive effect to suggest that the judicial system engage in semi-coercive measures to induce parties to settle (Korobkin & Ulen 2000:1106). This train of reasoning cuts short the investigation of other factors that are likely to influence people’s willingness to settle. It also crowds out normative debates about the propriety of courts’ applying pressure to force settlements or about the value of settlement over trial more generally (cf. Resnik 2000).

Legal scholarship that seeks to incorporate the insights of empirical social science must be aware of the limitations of such

¹⁹ Dan Kahan (1999) has argued that the rhetoric of deterrence in contemporary criminal law policy, which invokes the objective social science discourse of cause and effect, has the beneficial result of quelling more rancorous and divisive normative debates.

knowledge. Before laboratory results can serve as the basis for legal policy, they must be replicated in field studies that resemble as closely as possible “natural” conditions. And proposed interventions must be tried in small-scale pilot studies before they are implemented broadly. Even after thoroughly testing initiatives, it is important to avoid being overconfident about the results they can produce. Equally important, strong claims about the causes of failures of the legal system, based in objective social science research, should not be allowed to supplant the necessary, if unavoidably difficult, discussions of the societal values at stake.

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