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MINDLESSNESS AND LAW

Paul J. Heald* and James E. Heald**

Every day includes much more non-being than being.

-Virginia Woolf

At times my first-year students become frustrated by the application of economics to the law. Interestingly, the objection is not political—they do not complain that utility is an illegitimate value or one that common law judges may not implement. They are more concerned with the reality of basic economic assumptions about human nature. The economists’ rational, wealth-maximizing decisionmaker, I am told, is far removed from their experience. People often lack important information or fail to process correctly the information they have. If law is about influencing decisions, I am asked, why assume an unrealistic decisionmaking model? A review of legal scholarship reveals that my students’ uneasiness is shared by many academics. The controversy has been the subject of several interesting dialogues.

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1 See, e.g., Posner, An Economic Analysis of Sex Discrimination Laws, 56 U. Chi. L. Rev. 1311, 1315 (1989) (“[A]ll people...consistently act to maximize the excess of their private benefits over their private costs.”).


Critics of the behavioral assumptions underlying economic analysis of law commonly complain that economists

fail to apply a comparable degree of realism to all relevant factors; they fail to provide a sense of proportion about factors that are most likely to be important or prone to miscalculation in specific accident contexts; and they rely on broad behavioral generalizations to reach overbroad conclusions, despite great variations in the actual risk-assessment capacities and propensities of actors in diverse settings. 4

G. Edward White adds that “there are numerous tort litigants with no familiarity with negligence or its rules, no consciousness of accident prevention, and perhaps not any interest in ‘utility maximization.’ It seems quixotic to think of such persons as rational planners . . . .” 5 White concludes, as have many others, that “the assumptions made by economic theory about the motivations of humans are gleaned from a world that does not resemble the world of tort claims.” 6 The failure of law and economics to offer a more plausible decisionmaker is fatal, critics argue, because much of the contribution of economic theory in the field of law suggests that legal rules be crafted to influence human decisionmaking. 7

The immediate answer to such criticism has been to admit that “people frequently are inattentive, ignorant about the law and about accident probabilities, hopelessly clumsy, and so forth, and that these things blunt the effectiveness of tort law as a deterrent to careless behavior.” 8 The point is quickly made, however, that the power of


4 Latin, Activity Levels, supra note 2, at 488.

5 G.E. White, supra note 2, at 220-21; cf. Gjerdingen, The Coase Theorem and the Psychology of Common-Law Thought, 56 S. Cal. L. Rev. 711, 750-52 (1983) (presenting the debate between Mark Kelman, on one side, and Elizabeth Hoffman and Mathew Spitzer, on the other, over the validity of the Coase Theorem: “Coase assumes that people treat opportunity income, which neoclassical economists feel people implicitly ‘spend’ whenever they do not sell a saleable right or good, in the same way as actual received income, which they explicitly spend. Consumers simply do not behave in this manner.” (quoting Kelman, supra note 2, at 698)).

6 G.E. White, supra note 2, at 230.


8 Posner, Lawyers, supra note 3, at 751.
any theory is its ability to correctly predict results,\textsuperscript{9} and at least some empirical studies support the predictive power of the economic model.\textsuperscript{10} Whatever the defects, we are told, in the economists' simplistic presumption of a rational, wealth-maximizing decisionmaker, they do not seem to detract seriously from the predictive value of the theory. Furthermore, its very simplicity makes it easy to apply and, therefore, more valuable.\textsuperscript{11}

We believe both sides are correct. Human beings are imperfect decisionmakers—we often lack information, fail to assess accurately the information we have, and behave irrationally. And yet, in the real world of frequent information failure, high transaction costs, and human computational frailty, the tort system was created on and persists in the assumption that legal rules deter in an effective manner. As noted above, this assumption has some empirical support.

In a 1985 essay, Judge Richard Posner suggested that his behaviorist critics could "contribute to economics, by reconstructing . . . a more realistic model of human behavior toward danger than one that abstracts from information costs."\textsuperscript{12} In this Article, we offer a model of human decisionmaking to explain how the realities of human nature and the reality of efficient deterrence may coexist. Although this Article introduces into legal scholarship certain decisionmaking models developed by psychologists and social scientists, our primary purpose is not to suggest that the economic model be transformed or adjusted. We resort to alternative models to show that the human potential for unconscious information gathering and assessment can explain the mechanism by which people react to legal rules in the way predicted by law and economics. Essentially, we hope to make economists' assumptions seem more "real."

\textsuperscript{9} Id. at 750-51; see also M. Friedman, Essays in Positive Economics 14 (1966) (asserting that the test of the value of positive economic theory is not the reality of its assumptions but its predictive accuracy).

\textsuperscript{10} Posner, Lawyers, supra note 3, at 749-50 & nn.12-14 (describing various studies). This Article assumes the validity of empirical studies indicating that tort law influences conduct at least some of the time. If the numbers consistently proved otherwise, even Judge Posner would admit that the game is over.

\textsuperscript{11} See Posner, Future, supra note 3, at 62.

\textsuperscript{12} Posner, Lawyers, supra note 3, at 753; see also Ellickson, The Case for Coase and Against "Coaseanism," 99 Yale L.J. 611, 612 n.6 (1989) ("A richer law-and-economics would take more explicit account of cognitive limitations, the psychological disposition to value a thing in hand more than a prospect, and the influence of internalized norms.").
No less an authority than Milton Friedman has argued that improving the realism of assumptions in economic theory, although hardly essential to establishing the absolute validity of the theory (purely an empirical question), may offer several benefits. First, a "restructuring" (to use Posner's term) of an assumption may help explain divergences between predicted and observed results.\textsuperscript{13} Second, an explanation of why a seemingly unrealistic assumption does not destroy the predictive value of a theory may strengthen the theory by connecting it to "a more general theory that applies to a wider variety of phenomena . . . and has failed to be contradicted under a wider variety of circumstances."\textsuperscript{14} Also, a different and more "realistic" explanation of an assumption may facilitate an indirect test of the hypothesis by its implications.\textsuperscript{15}

We hope this Article will make economic theory more attractive in all three of the above ways and will constitute an effective response to critics of law and economics. Part I of this Article reviews several behavior-based criticisms of economic analysis of law. In order to answer the criticisms discussed in Part I, we have included an introduction to psychological "script theory" in Part II. A brief description of the theory might have sufficed, but we hope that a fuller exposition, including some reference to empirical data, may more effectively provoke investigation and application to legal scholarship. Thus, in Part II we examine relevant models of human decisionmaking developed recently in the fields of psychology and social science, and these models are based on evidence that unconscious information gathering and assessment play an important role in human decisionmaking.

\textsuperscript{13} M. Friedman, supra note 9, at 31 n.22.

\textsuperscript{14} Id. at 20. Friedman uses the example of an assumption that "each leaf deliberately [seeks] to maximize the amount of sunlight it receives." Id. at 19. In spite of the fact that this assumption is untrue, it may be used to construct a theory that will predict accurately the leaf density on parts of trees. The explanation that "purely passive adaption to external circumstances" is the true force behind leaf distribution does not give the theory a greater empirically measurable predictive power, but it does link the theory to a greater body of biological science and thus makes the theory "more attractive." Id. at 20.

\textsuperscript{15} Id. at 23; see also id. at 26-30 (discussing use of assumptions as an indirect means of testing a theory). Indirect proof of an economic theory is especially appropriate when the empirical evidence (due no doubt to the uncontrollable nature of the subject matter) is neither overwhelming nor entirely consistent.

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Part III will use the models to suggest why economists' seemingly unrealistic notions concerning human behavior need not blunt the value of their insight into the efficient deterrence rationale of the tort system. Section A of Part III accepts the validity of the handful of empirical studies demonstrating that people react to legal rules in the manner predicted by law and economics. We use the models described in Part II to suggest the mechanism by which those rules affect behavior. We conclude by defusing potential attacks that could be made on our explanation by researchers who demonstrate the existence of "cognitive illusions."16 In Section B, we relax the assumptions underlying the economic model and consider Robert Ellickson's claim that legal rules are frequently a less important determinant of behavior than cultural norms. We conclude that even if the assumptions underlying the economic model are faulty, law and economics remains a powerful tool for explaining the common law.

I. CRITICISM OF BEHAVIORAL ASSUMPTIONS UNDERLYING LAW AND ECONOMIC SCHOLARSHIP

Several attacks have been made recently upon the behavioral assumptions of those who apply economic theory to the law.17 First, however, a brief overview of these assumptions will be helpful.

A. Economic Man

University of Chicago economist George Stigler has set forth succinctly the behavioral assumptions upon which economic theory is

16 See infra Part I.B.3. A cognitive illusion is demonstrated when subjects systematically behave inefficiently in spite of perfect information.

17 This type of attack is hardly new. See M. Friedman, supra note 9. Friedman laments that too much time has been focused on the realism behind economic assumptions. He devotes most of the first 43 pages of his book to explaining the theory of theories. Id. at 7-43. The realism of assumptions, asserts Friedman, is irrelevant if the theory accurately predicts outcomes:

Truly important and significant hypotheses will be found to have "assumptions" that are wildly inaccurate descriptive representations of reality, and, in general, the more significant the theory, the more unrealistic the assumptions (in this sense). The reason is simple. A hypothesis is important if it "explains" much by little, that is, if it abstracts the common and crucial elements from the mass of complex and detailed circumstances surrounding the phenomena to be explained and permits valid predictions on the basis of them alone.

Id. at 14 (footnote omitted). This understanding of the function of theory is apparently as necessary today as 35 years ago. See, e.g., W. Landes & R. Posner, supra note 7, at 9-14.
based: "[P]eople act efficiently in their own interests. . . . [T]hey learn all the presently knowable things it pays them to know—always on average—and act with due regard for this knowledge." 18 Human beings rationally seek to maximize their own utility. The Coase Theorem is a familiar example of this premise at work. 19 In a world of perfect information and zero transactions costs, actors in a market will seek to maximize their wealth regardless of the assignment of property rights. The premise is uncomplicated and easy to apply.

Economic analysis of law accepted this behavioral premise as the foundation of its assertion that the common law has sought to facilitate the optimization of human resources by creating a system of incentives and disincentives for utility-maximizing people. For example, because a rational actor will cease wrongful conduct only when it no longer maximizes the actor’s utility, the common law prescribes punitive damages in situations where compensatory damages substantially fail to effect internalization of the costs of wrongful conduct. Similarly, an economist would expect to see a rise in accidents when a no-fault insurance scheme diminishes the personal liability of drivers who cause accidents. The premise is essential to the proposition that ‘law and economics’ analyses share one central behavioral assumption—that imposition of liability substantially affects how categories of actors respond to the risks they create or confront.” 20

B. Criticism of Economic Man

I. Casual Empiricism

The simplest type of attack on the behavioral assumptions underlying law and economics comes from critics like Howard Latin. Latin charges that law and economics is grounded in propositions that find no support in human experience or in simple common sense. His critique of the premise that liability rules influence decisions on accident prevention assumes that:

a series of behavioral hypotheses . . . must all be correct before imposition of tort liability will achieve the predicted results: typical actors must know the liability rules associated with various forms of con-

18 Stigler, Economists and Public Policy, Regulation, May-June 1982, at 13, 16. Stigler’s statement also appears in Latin, Problem-Solving, supra note 2, at 685.
20 Latin, Problem-Solving, supra note 2, at 677 (footnote omitted).
duct; they must possess sufficient information and evaluative skills to assess potential risks; they must pay attention to risks and corresponding liability rules when they engage in risky activities; and the category of actors assigned liability must evaluate the costs and benefits of alternative choices in a meaningful manner. In short, liability rules will promote social engineering objectives only to the extent that prospective injurers and victims can, and typically do, undertake informed problem-solving behavior with respect to the risks for which they may be liable. 21

Disregarding empirical evidence concerning the predictive power of the economic model as a whole, Latin argues that the theory's underlying hypotheses are incorrect.

Latin makes the general observation that human beings have a limited capacity for knowledge and risk assessment. People misperceive risks, distort and improperly assess information, and often labor under “cognitive strain.” 22 Moreover, “[m]any forms of behavior are 'programmed' or habitual,” and “people employ highly simplified decisional criteria.” 23 Thus, Latin concludes that “informed problem-solving behavior is a relatively infrequent phenomenon compared with the multitude of choices people must make.” 24 He asserts this casual empiricism as a refutation of economic analysis as currently applied to law. 25

At this juncture, we should note that one aspect of information-based criticism of law and economics already has been addressed. 26 In the marketplace, imperfect information does not always produce noncompetitive prices and terms. 27 As long as a sufficient number of consumers possess adequate information, the market will respond as if all consumers had adequate information. 28 A relatively small number of comparison shoppers can produce a competitive market. In such

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21 Id. at 678 (footnote omitted).
22 Id. at 683-84.
23 Id. at 684.
24 Id.
25 See also G.E. White, supra note 2, at 220-21, 230 (refuting economic analysis); Kelman, supra note 2, at 678-83 (same).
27 See Schwartz & Wilde, supra note 26, at 631.
28 Id. at 638, 649-51 (finding that a relatively small number of comparison shoppers can render a market efficient).
cases, it is inefficient to expend energy to inform all consumers because additional information would not increase wealth. Obviously, when such market conditions exist, the claim that consumers lack perfect information does not threaten the economic model. Although economics generally assumes a rational decisionmaker, it does not always assume perfect information.

This Article, however, defends law and economics from the charge of imperfect information in a different way. Script theory, set forth in Part II, suggests that people unconsciously possess much more information than they appear to have. Other commentators have suggested that inadequate information is not always a problem; we suggest that information inadequacy itself is less common than supposed.

2. Empirical Studies: Social Norms and Legal Knowledge

Several critics of law and economics have gathered empirical evidence suggesting the falsity of the theory's behavioral assumptions. Robert Ellickson's research is particularly illuminating. In investigating dispute resolution in a rural California county, Ellickson found that legal rules had little effect on actual decisions:

When adjoining landowners ... decided how to split the costs of boundary fences, they reached their solutions in almost total ignorance of their substantive legal rights. ... [in addition] virtually all rural residents applied a norm that an animal owner is responsible for the behavior of his livestock, even in situations where they knew that a cattleman would not be legally liable for trespass damages. ... [M]ost rural residents badly misperceived the applicable substantive law.

Ellickson's most important findings indicate that nonlegal (social) norms often supplant substantive laws, and decisionmakers often lack knowledge of the applicable legal rules.

Ellickson has collected other data that support his findings. As a sample, he cites a study of insurance adjusters who frequently applied comparative negligence principles in jurisdictions where contributory

29 See Ellickson, Of Coase and Cattle, supra note 2; see also R. Ellickson, Order Without Law (forthcoming 1991) (further analysis and critique of law and economics).
negligence constituted a complete defense;\textsuperscript{31} a study in Norway showing the negligible impact of housemaid labor regulations on maid/employer dispute resolution;\textsuperscript{32} and laboratory evidence that in contrived game situations players frequently do not engage in Pareto optimal exchanges when given the opportunity to do so.\textsuperscript{33} This research suggests two possible problems with law and economics. First, if the observed norms are inefficient, they provide evidence that people are not rational maximizers of wealth. Second, if conforming to these norms creates more wealth than conforming to the applicable legal rules,\textsuperscript{34} then doubt is cast on the economic teaching that common law rules are efficient.\textsuperscript{35}

Not only has the role of social norms gone unappreciated by legal economists, argues Ellickson, but so has the degree to which decisionmakers lack information regarding the legal rules governing their behavior. This empirically demonstrable phenomenon suggests legal rules lack the deterrent impact presumed by law and economics. Ellickson’s own work,\textsuperscript{36} and studies from Texas,\textsuperscript{37} Michigan,\textsuperscript{38} Norway,\textsuperscript{39} and California\textsuperscript{40} show that people frequently do not know the content of the legal rules that supposedly govern them. Such studies arguably support the conclusion that common law tort rules do not induce efficient behavior.

\begin{footnotesize}
\textsuperscript{31} Id. at 85 (citing H.L. Ross, Settled out of Court 240-41, 275-76 (rev. ed. 1980)).
\textsuperscript{32} Id. (citing Aubert, Some Social Functions of Legislation, 10 Acta Sociologica 98 (1967)).
\textsuperscript{33} Id. at 86 (citing Hoffman & Spitzer, Entitlements, Rights, and Fairness: An Experimental Examination of Subjects’ Concepts of Distributive Justice, 14 J. Legal Stud. 259 (1985)).
\textsuperscript{34} See, e.g., Ellickson, A Hypothesis of Wealth-Maximizing Norms: Evidence from the Whaling Industry, 5 J. Law, Econ. & Organization 83 (1989) [hereinafter Ellickson, Whaling Industry]; Ellickson, Of Coase and Cattle, supra note 2, at 687 (hypothesizing that the “norms that govern the relations among members of a group tend to maximize the aggregate wealth of group members”).
\textsuperscript{35} Ellickson, supra note 30, at 81 (“Most law-and-economic scholars and other legal instrumentalists have underappreciated the role that nonlegal systems play in achieving social order.”). Ellickson’s critique is hardly so broad as Latin’s; in fact, a recent issue of the \textit{Yale Law Journal} finds him actively defending Ronald Coase from an unfair line of argument. See Ellickson, supra note 12.
\textsuperscript{36} Ellickson, Of Coase and Cattle, supra note 2, at 667-71.
\textsuperscript{37} Williams & Hall, Knowledge of the Law in Texas: Socioeconomic and Ethnic Differences, 7 Law & Soc’y Rev. 99 (1972).
\textsuperscript{39} Aubert, supra note 32, at 101.
\textsuperscript{40} Givelber, Bowers & Blitch, \textit{Tarasoff}, Myth and Reality: An Empirical Study of Private Law in Action, 1984 Wis. L. Rev. 443 (examining psychotherapists’ knowledge of a landmark legal decision governing their duties of disclosure).
\end{footnotesize}
3. Empirical Studies: Computational Frailties and Cognitive Illusions

A different body of data suggests that even given sufficient information to allow for wealth-maximizing decisionmaking, human beings still frequently fail to act efficiently. Ward Edwards and Detlof von Winterfeldt have undertaken a partial categorization of the evidence that information alone does not ensure efficient choice. They discuss several phenomena:

a. Conservatism. The failure of subjects to revise initial opinions when presented with relevant new information.

b. Ignoring Base Rates. The failure of subjects to employ effectively prior probabilities ("base rates") in the face of specific individuating data.

c. Ignoring Sample Size. The failure of subjects to take into account the size of the sample from which inferences are to be drawn.

d. Nonregressive Prediction. The failure of subjects to "sufficiently account for the lack of perfect correlation [when making] predictions by matching the dependant to the independent variable."

e. Overconfidence. The failure of subjects to predict accurately the possibility of error in their judgments.

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42 Id. at 229-32 (citing Phillips & Edwards, Conservatism in a Simple Probability Inference Task, 72 J. Experimental Psychology 346 (1966) (reporting that subjects systematically underestimated probabilities that a bookbag contained predominantly a certain color of poker chip)).
43 Id. at 232-35 (citing, among others, Kahneman & Tversky, On the Psychology of Prediction, 80 Psychological Rev. 237 (1973) (reporting that subjects asked to predict whether a personality profile described an engineer or a lawyer ignored information regarding the proportion of lawyers to engineers in the pool of personality profiles)).
44 Id. at 235-37 (citing Tversky & Kahneman, The Belief in the Law of Small Numbers, 76 Psychological Bull. 105 (1971) (reporting that people, even those with statistical training, regard small samples to be highly representative of the population despite the fact that probability theory counsels against such inferences)).
45 Id. at 237-38 (citing Kahneman & Tversky, supra note 43 (reporting that subjects inaccurately predicted student grade point averages based on aptitude test scores even when knowledge of correlation between the two was provided)).
46 Id. at 238-42 (citing, among others, Pitz, Subjective Probability Distributions for Imperfectly Known Quantities, in Knowledge and Cognition 29 (L. Gregg ed. 1974)).
f. Hindsight. The failure of subjects to describe accurately what could have been foreseen.\(^{47}\)

The psychology of "cognitive illusions" may suggest that legal rules do not deter efficiently because human beings are unable to process relevant information and draw the inferences necessary to make the desired (predicted) decision under a given rule. The real-world decisionmaker characterized in the research summarized by Edwards and von Winterfeldt is far removed from that described by Stigler at the beginning of this Article.

In conclusion, empirically based and intuitive attacks on the behavioral assumptions underlying much law and economic theory raise an interesting question: how can the information-starved, cognitively deluded decisionmaker presented in Part I act as a wealth-maximizer and still respond to legal rules in the way predicted by law and economics?\(^{48}\) The seeds of an explanation lie in the models of decision-making set forth in Part II below.

II. DECISIONMAKING AND NONTHINKING

Decisionmaking proceeds from both conscious and nonconscious\(^{49}\) states of awareness. At times, decisionmakers are fully aware of the cognitive activity that leads to a decision. At other times, the conscious mind is unengaged or only marginally engaged, thereby leaving to nonconscious processes the task of moving the decider through all or parts of the decision task. In the latter case, the decider may be unable to recall the sequence by which the decision was reached. Consider the plight of the billiard player, either novice or expert, as described by Milton Friedman. The billiard player would take his shots

as if he knew the complicated mathematical formulas that would give the optimum directions of travel, could estimate accurately by eye the angles, etc., describing the location of the balls, could make lightning calculations from the formulas, and then make the balls travel in the

\(^{47}\) Id. at 243-44 (citing Fischoff, Attribution Theory and Judgment Under Uncertainty, in 1 New Directions in Attribution Research 421 (J. Harvey, W. Ickes & R. Kidd eds. 1976)).

\(^{48}\) See W. Landes & R. Posner, supra note 7, at 312, 316 (admitting uncertainty as to how legal rules affect behavior).

\(^{49}\) The term "nonconscious" is used herein to refer to states of "unawareness" or "mindlessness" as opposed to the terms "unconscious" with its medical connotation and "subconscious" with its psychiatric (Freudian) meaning.
directions indicated by the formulas. Our confidence in this hypothe-
sis is not based on the belief that billiard players, even expert ones,
can or do [consciously] go through the process described; it derives
from the belief that, unless in some way or other they were capable of
reaching essentially the same result, they would not in fact be expert
billiard players.50

Friedman also developed a business analogy, arguing that businesspe-
ople do not literally solve simultaneous equations any more than bil-
liard players actually make complicated mathematical calculations.51
Both somehow “figure it out” and then act as if they had employed a
sophisticated mental calculus to guide their behavior. An attribu-
tional psychologist52 would have great difficulty in determining from
observations the conscious or nonconscious precursors to such
behavior.

A. Mindful (Rational) Man

In analyzing wealth-maximizing behavior, either concrete or psy-
chological, personal or corporate, monetary or nonmonetary, what
are the available models? The prescriptive theorists would have deci-
sionmakers identify their problems, establish their objectives, gather
and analyze available and relevant information, and consider alterna-
tive means of achieving their goals. Only then would a decisionmaker

50 M. Friedman, supra note 9, at 21.
51 Id. at 22.
52 For a seminal exposition of “attribution theory” see F. Heider, The Psychology of
Interpersonal Relations (1958). Psychologists aligning themselves with attribution theory
accept the formidable task of attributing to observed behavior those causes that appear most
reasonably justified. They study the attributions people make under given circumstances and
consider how those attributions devolved. Research in this area indicates:

the structure and meaning of the events experienced by an individual derive from
attributional analyses that are often subtle and complex. Phenomenologically, such
analyses may at times appear to be fully represented in the person's consciousness.
These occasions may typify only one end of a continuum, however; since on other
occasions the analyses seem to occur partially, if not entirely, out of conscious
awareness.

Introduction to Part I: Attribution at the Personal Level, in 2 New Directions in Attribution
Research 1 (J. Harvey, W. Ickes & R. Kidd eds. 1978) [hereinafter New Directions]. An
example of an attribution, that could have arisen either consciously or nonconsciously, is that
which a student might make after receiving a low score on a test. The student might attribute
the score to the test being “too hard” or “unfair.” The student might even attribute the low
score to lack of study. An attributional psychologist hearing the various explanations might
attribute the “unfair” remark as arising from an external locus of control or the “lack of study”
remark as arising from an internal locus of control.
choose from among those alternatives that held the highest promise of maximizing the object of the decision. 53 This process, being consciously reasoned, is rational, and, accordingly, those who would follow it are assumed to be rational decisionmakers. 54

Recent literature in cognitive psychology, cognitive social psychology, and attribution psychology, as well as in information processing and social judgment theory, indicates that the rational processes outlined by the prescriptionists do not represent actual decisionmaking behavior. Nevertheless, to understand the different model presented in Section B of Part II, a selective review of rational processing and the role of cognition is necessary.

I. Cognition

George Mandler suggested that cognitive events occur under four conditions. 55 First, we may invoke consciousness to process a new thought or action. The novelty of an environmental situation stimulates conscious, thoughtful processing. 56 Second, when called upon to judge or decide, we may consciously weigh possible outcomes and potential actions. Third, we may invoke consciousness when habits do not work or plans seem to be falling apart. Fourth, we may search memory to accomplish recall. Each of these occasions may utilize consciousness; nonconscious activity may be occurring prior to, during, or after the conscious events.

Of considerable import to both conscious and nonconscious processes is the nature of stored learning, for it is from our memory that we retrieve, consciously or nonconsciously, the components of conscious thought. What we perceive, what we feel, and what we learn seem to be based upon associations between various elements in


54 See Feldman, On the Difficulty of Learning from Experience, in The Thinking Organization, supra note 53, at 263. Feldman has noted that "people are said to violate the 'rationality' of expected utility theory because their stated preferences do not match the calculated utilities of a set of alternatives." Id. at 265.


our environments and their perceived relationship to outcomes. Jack Feldman posited a role for experiences and maintained that "culture, training, and background influence attention to cues and their categorical interpretation."

2. Categorization

That there can be categorical interpretations implies a capacity to conceive and otherwise develop categories, to store experiences by categories, and to retrieve categories from storage. Conception, storage, and recall are facilitated by the distinguishing characteristics of categorical members and the associations among the characteristics as well as among the categories.

The processes of categorical development, storage, and retrieval are somewhat analogous to computer storage and retrieval systems wherein the lowest level of subdirectories contains the most discrete categories (as in "letters," "speeches," "memos," and "manuscripts" stored in word-processing files) whereas the root directory is reserved for larger "chunks." A "path command" may be invoked to sort quickly through the various subdirectories to access the specific file (category) containing the data and associations sought.

Objects with characteristics perceived as similar but not identical comprise a conceptual category or subcategory, and categories may be "chunked" into more generic "prototypical" categories comprised of several lower categories that contain shared attributes. To illustrate, we learn that birds have feathers and that fish do not, but we also come to know that there are several kinds of birds. This kind of knowledge facilitates the formation of a prototype labeled "bird" wherein feathers are a shared attribute among the raptors, songbirds, and waterfowl. The prototype has all the properties common to the group. The raptors, as a subcategory of "birds," would share the feathers attribute with the prototype but would have distinguishing

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57 Feldman, supra note 54, at 266.
58 Id.
attributes of talons and more nearly binocular eyes around which a raptor category could be conceived.

Objects are not the only things categorized. We store memories of our actions and actions of others as well as images of many kinds, for example, situations and events, language and labels, scripts and schema.

Insofar as we are able first to retrieve and then to apply information, events, causes, effects, and associations related to a situation, we are likely to be labeled as rational—particularly by persons who stored similar elements for use in similar situations.

**B. Mindless (Rational) Man**

The above discourse on cognitive events and how they come to bear on social behavior admittedly is simplified. But it does facilitate an understanding of how a mindless state can be associated with rational behavior in decision settings. The idea of a mindless act being rational seems oxymoronic: How can an act be rational without being reasoned? How can a person reason while functioning in a mindless way? Perhaps such reasoning cannot be done, but it seems certain that we can behave, borrowing Friedman’s phrase, _as if_ we had reasoned.

As early as 1896, researchers documented nonconscious functioning. Leon Solomons and Gertrude Stein reported several experiments to demonstrate the phenomenon. They were able to write words and later to take dictation while simultaneously reading aloud. They also found it possible to engage in oral reading while attending consciously to a story being read to them. They stated:

“We have shown a general tendency, on the part of normal people, to _act_, without any express desire or conscious volition, in a manner in general accord with the _previous habits_ of the person, and showing a

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62 See Mitchell, Rediker & Beach, supra note 53.
63 Dutton & Jackson, supra note 59, at 76-90.
64 Rosch, Mervis, Gray, Johnson & Boyes-Braem, Basic Objects in Natural Categories, 8 Cognitive Psychology 382, 382-439 (1976).
66 Solomons & Stein, Normal Motor Automatism, 3 Psychological Rev. 492, 492-512 (1896), cited in Langer, Rethinking the Role of Thought in Social Interaction, in New Directions, supra note 52, at 35, 35-68.
full possession of the faculty of *memory*; and that these acts may go on just as well outside the field of consciousness; that for them, not only volition is unnecessary, but that consciousness as well is entirely superfluous and plays a purely cognitive part, when present."67

Solomons and Stein were able to function in a nonconscious fashion *as if* their minds were fully engaged on the cognitive task at hand. In fact, as Ellen Langer has suggested in her research, people may be far less cognitively active than has been presumed.68

Additionally, the attributionists seem to have ascribed far too much conscious mental activity to people engaged in ordinary tasks.69 Dennis Gioia and Charles Manz have concluded that automatic processing plays a significant role in guiding organizational behavior.70 Warren Thorngate also has presented a corollary view: "[T]he role of thought in social interaction has been overstressed. In view of the cost of thought and the redundancy of social interaction, it is argued that habit is a much more common determinant of social behavior than cognition."71

Consider the behavior of the new driver of a stick-shift car. Each action is tediously considered, sometimes even orally, as the driver reviews the steps necessary for starting and shifting the car: "Let's see now. Put the key in the ignition. Now...depress the accelerator once to get some gasoline into the engine. So far so good! Now

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67 Langer, supra note 66, at 37.
69 See id.
70 Gioia & Manz, Linking Cognition and Behavior: A Script Processing Interpretation of Vicarious Learning, 10 Acad. Mgmt. Rev. 527, 527-39 (1985). Gioia and Manz were interested in linking vicarious learning, that which comes from observing the (modeling) behavior of others and its later consequences, with "scripted" behavior as described in the text that follows. Drawing from the work of A. Bandura, Social Learning Theory (1977) and E. Tulving, Episodic and Semantic Memory (1972), they concluded that observed episodes can produce an "episodic script" that guides the observer when faced with similar situations in the future.
71 Thorngate, Must We Always Think Before We Act?, 2 Personality and Soc. Psychology Bull. 31, 31 (1976). Thorngate concluded that cognitive approaches to understanding human behavior, with their focus on the role of thinking as a behavioral mediator, were inadequate to explain behavior in social settings. Id. at 31-35. With reference to the earlier works of William James; Bruner, Goodnow, and Austin; Slovic and Lichtenstein; Newell and Simon; and Russo and Rosen, he concluded that "cognitive strain is a costly feature of thought," and "the assumption that individuals attempt to keep the costs of thought below some threshold set by their information processing capacities and time constraints constitutes one of the major axioms of the heuristic approach to cognition." Id. at 31.
depress the clutch, and... oops, I almost forgot to put my foot on the brake. Okay, now turn the key. What do you know, it worked! Now what? Oh, yeah, release the emergency brake and let the clutch out slowly... .

The scenario continues until the cadet driver proceeds cautiously down the road in high gear. Only a few weeks later, the driver handles this complex sequence of actions routinely and without conscious thought as he simultaneously talks to a passenger and listens to the car stereo. What began as a highly alerted, conscious act became an automated sequence of behaviors. This behavioral “script” most likely will continue until some novel stimulus jolts the driver into resuming fully conscious control.

1. Scripts for Mindless Actors

If automatic behavioral sequences, or scripts, devolve from a non-conscious state, and if we behave rationally with regard to these unreasoned entities, we have identified the mindless (rational) man. Robert Abelson theorized that throughout our lives particular patterns of behavior are expected of us in recurring social situations.\(^\text{72}\) Given the redundancy of the settings, we are inclined to develop scripted behaviors encompassing coherent sequences of events appropriate for given situations.\(^\text{73}\) Roger Schank and Robert Abelson have posited that “the over-all organization of memory is a sequence of episodes organized roughly along the time line of one’s life.”\(^\text{74}\) They concluded that “[a]s an economy measure in the storage of episodes,

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\(^{72}\) Abelson, supra note 65, at 36. Abelson, generally accepted as the principal developer of script theory, was concerned that cognitive psychology relied too heavily on a belief that knowledge can be represented by “propositional networks, and that understanding involves some form of matching input to known propositions.” Id. He became convinced that variations in individual’s experiences cause them to develop different scripts for later expression in similar circumstances. He did accept, however, that some common scripts, derived from similar experiences within a common culture, become almost universal.

\(^{73}\) Id.

\(^{74}\) R. Schank & R. Abelson, Scripts, Plans, Goals, and Understanding 19 (1977). In their “restaurant” example, Schank and Abelson suggest that our behavior in a restaurant may follow a “restaurant script” developed over many similar experiences in dining out. Each new visit may add unique features from a particular dining episode to the more generic script. They would agree that the restaurant script invoked upon entering a fast-food franchise might differ from the one invoked upon entering a fine French restaurant. The respective scripts would have developed from the particular experience of eating in each restaurant. Id. at 42.
when enough of them are alike they are remembered in terms of a standardized generalized episode which we will call a script."75

Abelson conceived scripts as being composed initially of "vignettes," consisting of an image stored with an identifying label.76 The vignettes could be stored separately or divided into categories based on perceived similarities. Abelson's hierarchy of scripts begins at the lowest level with the *episodic script* that stores individual episodes. When stored in conjunction with related episodic vignettes, *categorical scripts* are formed. At the highest level are *hypothetical scripts* that can be used as "script ensembles." Hypothetical scripts permit the actor to draw from multiple vignettes when making a decision.

Gioia and Manz summarized script processing as follows:

[T]he evolution from the primitive and specific episodic script to the complex and wide-ranging generalized script represents a progression from the concrete to the abstract, and from the context-bound to the general. Once evolved, the generalized script serves as a functional repertoire whereby a specific script that is appropriate for a given situation can be tacitly "deduced" and performed.77

Scripts, like other cognitive structures, are durable. Maria Kovacs and Aaron Beck asserted that scripts represent prior experiences in an organized way.78 They believed that cognitive *schemas* serve a template function whereby stored information can be sorted, categorized, evaluated, and labeled. Donald Meichenbaum and J. Barnard Gilmore were concerned with structure. They explain that:

[a]n individual's cognitive structures serve as a kind of 'executive processor' holding the 'blueprints' for thinking, feeling, and behaving. The set of cognitive structures is the 'meaning system' that functions to put behavior into motion, and then to guide the choice and direction of particular sequences of thoughts, feelings, and behaviors.79

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75 Id. at 19.
76 Abelson, supra note 65, at 34.
77 Gioia and Manz, supra note 70, at 530.
Blake Ashforth and Yitzhak Fried identified the preservation of

cognitive capacity as a major function of scripts. They found that

scripted behavior helps "reduce qualitative overload and role ambigu-

ity, allowing the individual to focus on the task at hand." By per-

mitting individuals to perform routine functions automatically, scripts

conserve cognitive capacity to focus more consciously on new and

unfamiliar stimuli.

Sara Kiesler and Lee Sproull went further:

Given the limited capacity of human beings to deal with all of the

information in their environment, encoding must be a selection task. But

selection is not a process of arbitrarily picking and choosing among all available information. Rather people attend to and encode

salient material—events that are unpleasant, deviant, extreme, intense, unusual, sudden, brightly lit, colorful, alone or sharply drawn. In the world of organizations, salient information includes unanticipated drains on cash flow, new taxes and regulations (unpleasant information), predictions of best and worst outcomes (extreme information), disruptions of routines and emergencies (intense, unusual, sudden information), and publicity and iconoclastic executives (colorful information).

Thus, if mindfulness has its "bounds," scripts find their place as

simplified models of much, and perhaps most, human behavior. As

Ashforth and Fried have argued, "much everyday organizational

behavior occurs quite mindlessly."

Ashforth & Fried, The Mindlessness of Organizational Behaviors, 41 Hum. Rel. 305, 305-29 (1988). More than their predecessors, Ashforth and Fried focused on the role of script formation and scripted behavior in organizational settings. They argued against the pervasive assumption that in organizations "individuals are cognitively alert, diligently attending to the task environment and constantly processing information about the environment so that behavior might be made more effective." Id. at 305. After reviewing works on organizational concerns such as meetings (see Gioia & Poole, Scripts and Organizational Behavior, 9 Acad. Mgmt. Rev. 449 (1984)), decisionmaking (see Starbuck, Organizations as Action Generators, 48 Am. Soc. Rev. 91 (1983)), performance evaluation (see Feldman, supra note 54, at 263-92),

social behavior (see Langer, supra note 66, at 35-58), and task performance (see Ashforth & Ravid, Poor Service from the Service Bureaucracy: The Role of Mindlessness, Proceedings of the 46th Ann. Mtg. Acad. Mgmt., 166, 166-69 (1986)), they deduced the general theme that "much cognitive and behavioral activity occurs automatically or 'mindlessly' with little or no real problem solving or conscious awareness." Ashforth & Fried, supra, at 306.


Ashforth & Fried, supra note 80, at 311.
2. **Invoking Scripts**

First, and perhaps foremost, researchers contend that scripts are invoked mindlessly. Even when people believe they have been consciously engaged, they often have been behaving from learned, stored, and nonconsciously invoked scripts. At the first point of contact, a previously unexperienced event is approached consciously; the event, the actions and other elements comprising it, and the outcomes related to it are simultaneously stored. After repetitious contact with similar events, the satisfying behaviors are overlearned, and subsequent confrontation with similar events is accompanied by minimal awareness and otherwise mindless action. 84

Langer theorized that a “compliance script” might be called forth in a research setting if subjects were confronted with a situation containing elements sufficiently familiar to invoke a script from the subjects’ repertoires. 85 Her hypothesis was that subjects might have a script of the nature: “favor X + reason Y —> comply.” 86 Subjects were in three groups with all subjects about to use a Xerox machine in a library. Subjects in each group received a slightly different request from an approaching stranger:

1. **Request Only:** Excuse me, I have 5 (20) pages. May I use the Xerox machine?
2. **Placebic Information:** Excuse me, I have 5 (20) pages. May I use the Xerox machine because I have to make copies?

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84 See Shiffrin & Schneider, Controlled and Automated Human Information Processing: Perceptual Learning, Automatic Attending, and a General Theory, 84 Psychological Rev. 127 (1977). After a series of experiments, the authors concluded that a common stimulus can be experienced differently and can result in the invocation of differentiated, automatic responses: “For example, a red light might elicit a braking response when the perceiver is in a car, and elicit a walking, halting or traffic-scanning response when the perceiver is a pedestrian.” Id. at 156. Their research indicated that it takes considerable training (overlearning through numerous repetitions) to develop an automatic response, but “once learned, an automatic response will be difficult to suppress or alter.” Id.

85 Langer, supra note 66, at 48.

86 Id.; see also Kitayama & Burstein, Automaticity in Conversations: A Reexamination of the Mindlessness Hypothesis, 54 J. Personality & Soc. Psychology 219 (1988) (similar research). These authors tested whether students would comply with a request for a sheet of paper and found that “reasons” were less important to gaining compliance than Langer had suggested. Rather, “it is more reasonable to assume that there exists a script that prescribes no reason be stated following a request.” Id. at 221.
3. **Real Information:** Excuse me, I have 5 (20) pages. May I use the Xerox machine because I'm in a rush?87

All subjects thereby received, in part, the same request, "May I use the Xerox machine?," preceded by a favor/size statement. Five pages represented a smaller favor and twenty pages a significantly larger one. Groups Two and Three received reasons, with "because I have to make copies" being a placebic reason in that it was implied in the request itself. "Because I am in a rush" represented a real reason.

Both groups receiving "reasons," regardless of whether the reason was real or placebic, rewarded the request for the smaller favor (five pages) by complying almost all the time: 94% and 93%, respectively. Group One, which received no reason, complied at a rate of 60%. When the favor was larger (twenty pages), the group receiving a real reason complied at a rate of 42%, whereas the other groups complied 24% of the time. The numbers suggest that providing any reason for a small favor triggered the predicted compliance response, whereas the large favor may have called attention to the placebic reason.88

In yet another experiment, Langer and her colleagues were interested in determining if a mindless processing could be elicited from receipt of a written communication requesting the return of a meaningless questionnaire.89 Their hypothesis was that the receipt of a common kind of communication would result in a mindless response. Believing that signed requests were more commonly received than unsigned requests and that unsigned demands were more common than signed demands, the group devised four conditions for their experiment.

They constructed a polite, personal/request signed by a fictitious person and an impersonal/demand that was unsigned. Both of these conditions were believed to be congruent with the manner in which mailed questionnaires most likely were received. A compliance script was expected to be elicited in response to the more commonly received type of message. On the other hand, receipt of a polite, unsigned/request or a signed/demand would be incongruent with the subjects' more common experiences. These messages were expected

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87 Langer, supra 66, at 48.
88 Id.
to be less subject to an automatic, mindless reaction and more likely to generate a "mindful" response.

Eighty subjects were chosen randomly from a telephone directory, forty from the white pages and forty from the classified section where physicians were listed. The latter were chosen to represent a "high status" group believed to face quite often the need to respond (or not to respond) to mailed questionnaires. The questionnaires sent to all subjects were comprised of inane items.

The only statistically significant finding was that the high status group, the physicians, who received congruent messages, responded by returning the questionnaire more often than their counterpart physicians who received incongruent messages. The physicians engaged in mindless manner more often than the random status group. Presumably, the incongruency of the signed/demand or the unsigned/request caused the physicians to think about the inane nature of the questionnaire, and once such conscious thought had been given, a significantly smaller number of them chose to return those kinds of survey instruments.

The researchers were careful to remind readers that their findings did not suggest that physicians were more mindless than the random status group. Rather, they suggested that physicians simply were more likely to receive mailed questionnaires and hence were more susceptible to responding in a mindless, automated, scripted manner because of their greater exposure to a redundant circumstance. Nevertheless, it was concern over this result that led directly to another experiment involving secretaries and the memos they commonly receive.

In this experiment, the researchers, Langer and her colleagues, began by collecting eighty-three memos from the wastebaskets of twenty secretaries to determine the nature of the written, verbal communications to which the secretaries routinely responded. Of the memos, 83% were of a type the researchers labeled impersonal/request (e.g., "Please make twenty copies of this"). Such requests were unsigned. The memo most routinely received by secretaries was of this type; receipt was expected to invoke a nonconscious script and a mindless response whereby the secretary would do what was asked regardless of the sensible or nonsensical nature of the request.
The other types of test memos were labeled impersonal/demand, personal/request, and personal/demand. The memos contained the following messages:

Request: "I would appreciate it if you would return this paper immediately to Room 238 through interoffice mail."

Demand: "This paper is to be returned immediately to Room 238 through interoffice mail."

Half of each of these messages were signed ("Sincerely, John Lewis"), and half were unsigned and merely had a number (R374021-A) at the bottom of the message.

Note that the request was to return the paper on which the memo was written to a nonexistent person in a nonexistent room. The message simply made no sense. Note further that the unsigned/request was congruent with the most normal routine (receive an impersonal/request type of memo, then comply). Of those receiving a congruent message, 90% responded as predicted. Those receiving personal/request messages responded at a 70% rate, those receiving impersonal/demand messages responded at a 50% rate, and those receiving personal/demand messages responded at a 60% rate.

Langer and others considering these kinds of experiments suggested that "perhaps there has been a misdirected emphasis on people as rational information processors" and that "taken together [the experiments] support the contention that when the structure of a communication . . . is congruent with one's past experiences, it may occasion behavior mindless of the details." The subjects in Langer's experiments had developed "compliance scripts" from their experience in processing office memoranda. When these scripts were roused by contrived, cuing stimuli, mindless compliance followed.

Familiarity follows repetitious contact with similar environments. Ashforth and Fried suggested that the more experience we have with a class of situations, the more easily categorized become the cues. We likely "categorize cues according to the match between stimulus

90 Id. at 641.
91 Id.
92 Id.; see also Ashforth & Fried, supra note 80, at 312 (related interpretations regarding the cuing process).
94 Ashforth & Fried, supra note 80, at 312.
features and cue prototypes abstracted from repeated exposure."95 Ashforth and Fried posited that we interpret ambiguous stimuli in a way "consistent with the anticipated script or recall[] script-consistent events that did not in fact occur."96

Even seemingly conscious decisions seem to have important scriptive components. Paul Slovic and Sarah Lichtenstein suggested that when facing a judgment, the situation of the judgment is a prime determinant of how the task is approached. 97 They considered "structure" as an important element in script processing. They noted that:

The order in which information is received affects its use and integration but the specific form of sequential effects that occur is dependent upon particular circumstances of the decision task. Similarly, the manner in which information is displayed and the nature of the required response greatly influence the use of that information. In other words, the structure of the judgment situation is an important determinant of information use.98

A stored script may be retrieved even when apparently relevant attributes are missing. Each schema contains various correlated attributes associated with a "particular stimulus domain."99 When a configuration "is matched to a schema and the configuration is missing certain attributes usually found in that domain, search behavior may proceed . . . so as to obtain a fuller match."100

In addition, Thorngate believed that adults have stored thousands of "caricatures" created from real or imagined experience and from watching the experiences of others.101 Those caricatures may be "extracted from the current interaction and tested against past ones through perceptual processing mechanisms much like words are per-

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95 Id.
96 Id. at 318.
98 Id. at 724.
100 Id.
101 Thorngate, supra note 71, at 33. Thorngate believed that normal adults store in memory thousands of "caricatures" devolving from both direct and observed experiences. If a situation similar to a caricatured experience arises, then responses to the caricature "will be sampled to determine if any satisfactory response can be recalled" for implementation. Id.
ceived and processed through recognition memory. Little if any con-
sscious thought will be invoked at this point."\textsuperscript{102}

In summary, the scripts and schemas that guide a high proportion
of human behavior are developed from experiences (personal and
vicarious) and filed in our memory in categorized and labeled forms.
Different situations have distinguishing features that trigger appropri-
ate scripts. The process occurs in a mindless, nonconscious manner,
and once invoked, the script provides a map for subsequent behavior.

III. MINDLESSNESS AND LEGAL RULES

Part I of this Article concluded with the following question: how
can the information-starved, cognitively deluded decisionmaker act as
a wealth-maximizer and still respond to legal rules in the way pre-
dicted by law and economics? Script theory suggests an answer,
showing why economic analysis of law may work despite its seem-
ingly erroneous assumptions about human nature. As an instrument-
tal matter, this explanation makes law and economics more credible
and provides a link to a large body of compatible empirical data. Sub-
stantively, script theory may help account for particular failures of
economic theory to correctly predict a legal outcome.

Section A of Part III defends law and economics by using script
theory to describe how people respond to legal rules. This endeavor
depends on establishing two propositions in the legal context. Propo-
sition (1): Individuals can be affected by environmental factors
(including legal rules) without being consciously aware of the effect.
Proposition (2): Even if only some individuals are affected by non-
conscious factors, others will often follow. We conclude that script
theory provides sufficient support for these propositions. A third
proposition is suggested. Proposition (3): The effect of nonconscious
factors, through either mechanisms (1) or (2), tends to make individu-
als' behavior efficient. Proposition (3) requires direct empirical sup-
port; this Article can do no more than render it more plausible.

Since these propositions are intertwined, they are not presented
\textit{seriatim}, but rather take shape throughout a detailed discussion of
mindlessness and driving. Section B of Part III notes the importance
of behavioral norms in Section A (especially regarding Proposition
(2)). Also, by examining the work of Robert Ellickson, Section B

\textsuperscript{102} Id.
explores whether conformity to cultural norms diminishes the descriptive power of law and economics as applied to the common law.

A. Mindlessness and Driving

An economist would confidently predict that a law regulating the operation of automobiles that provided decreased incentives to take care would result in a higher rate of accidents. Such predictions have been empirically verified. Given that most people probably do not consciously consider the content of tort law when making most of their driving decisions, by what mechanism does a change in the law result in more accidents?

I. Driving Scripts

A great deal of the driving that we do is done mindlessly. The discussion in Part II of this Article would suggest that we frequently drive automatically by employing some sort of a driving script (or combination of driving scripts). Although we receive lessons in high school and are occasionally warned to be careful, our habits are shaped on the road as we drive surrounded by fellow members of our community. For example, the speed at which we drive, how closely we follow others, and when we use our turn signal probably are scripted behaviors. It seems very likely that our driving scripts, once learned, are followed mindlessly. We have not identified any specific study that measures the precise degree to which we behave mind-

103 See, e.g., Landes, Insurance, Liability, and Accidents: A Theoretical and Empirical Investigation of the Effect of No-Fault Accidents, 25 J.L. & Econ. 49 (1982) (finding that no-fault auto accident laws may have increased traffic deaths up to 15% in some states).
104 This is especially relevant in the context of no-fault driving laws that resulted in increased insurance premiums and, presumably, priced some risky drivers off the road. See R.W. Grayston, Deterrence in Automobile Liability Insurance (1971) (Ph.D. thesis, Univ. of Chi., Grad. Sch. Bus.).
105 We choose driving as our archetypical example for three reasons: first, it is a familiar activity; second, the assertion that driving involves some scripted behaviors should be relatively uncontroversial; finally, economists have focused on driving behavior in their research. See supra notes 103-04.
106 Abelson describes script combinations as categorical or hypothetical depending roughly on their degree of complexity. Simple single-behavior scripts are labeled "episodic." See Abelson, supra note 65, at 35.
lessly, but researchers suggest it is probably quite high. How else can we argue with our spouse or concentrate on solving an office problem while simultaneously traveling down the road?

In fact, it would appear that we have innumerable types of driving scripts. The operation of a stick shift—the interrelated motions of hands and legs in changing gears at the appropriate time—might be described as an episodic script. A meta-script (according to Abelson, a “hypothetical” script) of much greater magnitude mindlessly pilots me much of the way to work each morning. We seldom think about when to turn or which lane to enter to make the turn easier; the acts are performed quite automatically. The driving-to-work script of some professors is so strong that many Saturday morning shopping trips have mindlessly ended in the University parking lot (an experience shared by several of our colleagues).

2. Mindless Information Gathering and Response

The phenomenon of scripting is crucial to understanding how legal rules can affect decisionmaking when information is ostensibly imperfect and rational processes are apparently not focused on a relevant decision. Research into scripting and script development indicates that appearances can be deceiving. Mindless behavior may be much better informed and more “rational” than previously supposed.

Kenneth Bowers, for example, has found that “human behavior and thought is sensitive and responsive to information that is not noticed or comprehended.” People need not be able to recite or explain a legal rule in order to “know” it and respond to it. After considering the work of Donald Mackay, and J.R. Lackner and

107 See Ashforth & Fried, supra note 80, at 306 (“much cognitive and behavioral activity occurs automatically or ‘mindlessly’ ”); id. at 313 (suggesting that “a limited number of rules are sufficient for most behavior and that these are apt to be invoked regularly”); Langer, supra note 66, at 38 (“Most behavior may be enacted without paying attention to it, even complex social interaction.”).
108 Some of the earliest investigation into mindlessness involved simultaneous behaviors. See Solomons & Stein, supra note 66, at 492 (documenting simultaneous reading and writing).
110 Id. at 237.
M.F. Garrett,112 Bowers concluded that we notice and use more information than we can recall.113 In scriptive mode, we process and respond to information that we cannot articulate. This research indicates that subjects' answers to questions about their active knowledge of the law give little indication of the extent to which the law affects their behavior. People may very well respond to legal rules that they cannot articulate or remember.

The related phenomenon of "vicarious learning" has been well-documented.114 People do not act in a vacuum. We are constantly, inescapably bombarded with stimuli from our environment, and when we operate in a scripted mode, we remain in tune to much new information. Research in the area of organizational behavior suggests that "automatic, schema-based information processing also plays a significant role in the content of many organizational behaviors."115 We learn vicariously from the sum of our environmental stimuli, and scripts constitute "the core of vicarious learning."116

Psychologists have on numerous occasions demonstrated that individual behavior within a group mindlessly conforms to a group

113 See Bowers, supra note 109, at 237-38. Bowers summarized the work of Mackay as follows:

In this experiment, subjects wore headphones and were asked to repeat word-for-word (shadow) short sentences presented to one ear, while ignoring any material presented to the other ear. The shadowed sentences were ambiguous, and could be interpreted in one of two ways. For example, the sentence "They threw stones toward the bank yesterday" can be interpreted quite differently depending on how the word "bank" is understood—either as a river bank, or as a place where money is kept. Every time an ambiguous word appeared on the attended channel, another word, which resolved or "disambiguated" the meaning of the shadowed sentence (e.g., the word "river" or "money") was simultaneously presented on the unattended channel. After shadowing 28 such sentences, subjects were presented with the two disambiguated renditions for each of the original ambiguous sentences, and asked to select the alternative which was recognizably closer to their initial understanding of the sentence.

For ambiguities of the type illustrated above, interpretation of the sentences was significantly shifted in the direction of the disambiguating word presented on the unattended channel. This shift occurred despite the fact that subjects were unable to recall the words presented on the unattended channel.

Id. (footnote omitted).

114 See Gioia & Manz, supra note 70.
115 Id. at 529.
116 Id. at 531.
The group norm is not the product of conscious consensus. Rather, a group tends to act as a single organism, impounding all available information and adjusting as a whole; individuals within the group conform automatically. Studies of group norms are helpful in understanding how an individual's driving script will tend to conform to what could be called the "majority script." A majority script, when one exists, is simply the way in which most actors mindlessly perform the same type of task. If most drivers on a road are driving at a certain speed, we may mindlessly do the same. Similarly, we may conform our following distance to the norm of the community in which we drive.

To summarize at this point, we note there are at least three related ways by which people with ostensibly imperfect information actually function as though they mindfully acquired and possessed perfect information. First, we may "notice" and utilize information that we cannot articulate or recall. We may not have paid attention to information contained in our insurance bill, but nonetheless we may have unconsciously noticed it and responded to it. Second, we may learn vicariously from our environment, in particular by coming into contact with the behavior of others. Finally, if we unconsciously conform our behavior to an environmental norm, we are mindlessly utilizing information to which we have no cognitive access.

Applying this body of research to driving is revealing. Adjustments to driving conditions may be made mindlessly; in fact, we may not even be aware of a condition or new information unless its novelty jerks us into mindfulness. Our unconscious receptors are attuned to

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118 See Abelson, supra note 65, at 33 (stating that "many scripts are culturally so overlearned that they are virtually universal").
119 Some researchers suggest an evolutionary basis for this phenomenon. See Campbell, Rationality and Utility from the Standpoint of Evolutionary Biology, in Rational Choice, supra note 3, at 171. Campbell emphasizes the organic nature of human behavior. We function as a group, mindlessly utilizing the experience of the species as a whole. Although we often behave mindlessly, our interaction with the human organism provides us with information to which we often automatically respond. The overall human enterprise might be fairly efficient, even if its individual parts are not. See also Zelthauser, Comments: Behavioral Versus Rational Economics: What You See Is What You Conquer, in Rational Choice, supra note 3, at 251, 264 ("We all know that nature optimizes, at least over the long run... bumblebee economics is well established. The question is whether human beings can do as well in the much richer and more rapidly changing environment they confront.")
others on the road who may be reacting directly to some condition. For example, we may sometimes utilize a "follow the leader" driving script. We may not consciously adjust for a curve that appears ahead, but we turn the wheel of the car because we are automatically following the driver in front of us who presumably conforms his driving to the curve. The same script may enable us to avoid hitting a pedestrian whom we do not realize is standing too close to the road. As the cars in front of us veer to the left, so do we. We may never register that the pedestrian would be endangered had we remained on course. We do not make an explicit calculation of costs and benefits, nor do we consciously access all information relevant to the decision to veer, yet we behave as if we do.

A substantive legal rule governing driving is a driving condition. It is information, and research on scripting and conformity strongly suggests that everyone need not know about the rule to react to it. If the driving experience is communal, or if our scripts are adjustable to other conditions and behaviors, a trickle-down effect can be expected. Trickling may take a while, but our scripts eventually should adjust (most of the time) to relevant information so long as at least some drivers are cognizant of it. 120

Driving most often is mindlessly interactive and very often part of a communal act. The knowledge of one—for example, the driver in the front of the line who sees the pedestrian standing too close to the road—is transmitted to the whole (who begin veering away even before they realize a pedestrian is ahead). Actors often behave as if they knew a condition, when, in fact, they do not have access to the knowledge. Given that much of our behavior is scripted, we may respond to external stimuli in a far more efficient manner than previously assumed. What has been referred to as the problem of imperfect information may not be so threatening to the application of economics to law. At least as regards scripted behavior, the assumption of an informed decisionmaker may be quite realistic. At the very least, studies conducted by asking respondents what they "know" about the law should be discounted.

Of course, critics of law and economics pursue their case beyond mere information failure. They also question our human ability to

120 Such direct knowledge might come from news reports of a change in the law or from information provided by insurance companies when billing.
process information in the manner predicted by economic theory. A brief foray into the specific problem of negligence illustrates how script theory may be used to blunt that critique and serve as an introduction to the thornier problem of so-called nonlegal norms.

3. Negligence and No-Fault Laws

It has been demonstrated that the adoption of no-fault accident laws in theory provides fewer incentives for drivers to take due care than does the traditional negligence regime. This recognition has not prevented the erosion of the adoption of no-fault accident laws. The point made by the economists has been considered a technical one; diminished incentives exist in theory, but in reality people will not drive more recklessly in response to a change in tort law. People often are unaware of damage rules, and even those who happen to know them can hardly be expected to alter their risk assessments at the margin and drive differently. The economic prediction of less careful driving, which seems to be borne out empirically, would be more credible if we could explain how the change in the law altered driving behavior. Script theory may offer an explanation.

If driving is primarily scripted behavior, and drivers tend to adhere to the norm (the majority script), then a shift to no-fault accident law should alter driving behavior if a sufficient number of motorists have knowledge of the legal change in driving conditions. The driving community should impound the information relating to the change. Some unknown number of drivers will constitute the critical mass necessary to alter the norm, and that number may be quite small. In the example of the lead driver swerving to avoid the pedestrian standing too close to the road, only one driver of a long line of drivers had actual knowledge of the changed condition, yet all complied. The group—that particular driving micro-organism—required only minimum actual notice.

That swerving example merely illustrates that when relatively few motorists change their behavior, they affect the behavior of others. Once a driving norm has incorporated a particular legal rule, drivers behave as if they know the rule merely by conforming to the norm.

121 See W. Landes & R. Posner, supra note 7, at 54-84.  
122 See id. at 136-37 & nn.30-33.  
123 See supra notes 103-04.
Yet this observation does not explain why any particular driver (and those acting similarly to create a critical mass) first exercises more or less care on the road. The hard question, one that critics of law and economics would be quick to pose, is why would even one driver perform less carefully given knowledge of a change in liability rules? I did not decide to drive with less care when I moved to Georgia (a no-fault state until 1991). If I, an educated and informed lawyer who delights in rational decisionmaking, did not consciously adjust to the change in the applicable legal rule, who ever would?

Script theory responds that information that should affect our behavior will affect our behavior—unless it is consciously disregarded. If I consciously and mindfully disregard the fact that I can breathe a sigh of financial relief as I enter Georgia (since my own negligence will no longer bar my recovery), then I can maintain my previous level of care. My experience indicates, however, that I can only perform consciously and mindfully behind the wheel for brief periods of time. For example, although I decelerate to 55 mph when I can think to do so, I stray beyond that as soon as I drift back to my normal mindless/scripted mode. Once the relevant information has been processed by my brain, only conscious effort can prevent it from being used.

In other words, even if it is unlikely that a substantial number of drivers who know of a change in liability rules will consciously change their behavior, mindless decisions might not remain unaffected. If much driving is done mindlessly, then relevant changes in liability rules should affect behavior.

The first day a no-fault regime replaces a negligence system, no change in levels of care might be perceptible. But once the rules begin to affect postaccident experiences (primarily through the eye-opening

124 Of course, I may now drive with less care if I unconsciously conform to a Georgia driving norm that requires less care, but that does not answer the question as to how that norm established itself in the first place.

125 See Bowers, supra note 109, at 237-38 (referring to Mackay’s study where subjects’ behavior was affected by information that the subjects could not recall); see also id. at 233 (citing a study that described unknowing responses to stimuli); Lucas, Adaptive Behavior and Economic Theory, in Rational Choice, supra note 3, at 217 (emphasizing the gradual process by which communities adapt to new information).

126 Presumably, this conscious effort could include the purposeful restructuring of an entire script. A golf swing, although a scripted act for the experienced player, could be relearned and result in a different scripted behavior.
experience of not bearing the full cost of driving misconduct), levels of
care should be affected as well. Although surveyed drivers might
claim that their driving is not influenced by the changed rule, script
theory suggests that such questioning would be inapposite. Bowers,
for example, reports "[a] particularly graphic illustration of how a
stimulus event [i.e., a postaccident experience] can be noticed without
any appreciation of its influence."\textsuperscript{127} Other researchers have con-
cluded that decisionmakers "have no direct introspective access to the
determinants of their behavior,"\textsuperscript{128} indicating that our driving behav-
ior is affected by information that we might think irrelevant or claim
not even to possess. Furthermore, this inability to access the determi-
nants of our behavior would seem especially likely to occur in the
context of mindless/scripted decisionmaking.

Script theory suggests that the common critique of law and eco-
nomics, that "people just don't make decisions that way," is naive.
We have a far greater unconscious ability to gather and process infor-
mation than the critics suppose. At least as applied to scripted behav-
ior, tort rules very well may play the role economists assume they
play.

\textsuperscript{127} Bowers, supra note 109, at 245. Bowers conducted a study that first determined whether
the subjects preferred landscape or portrait paintings. See Bowers, The Psychology of Subtle
During the operative portion of the experiment, he selectively reinforced the subjects' choice of
their initially nonpreferred type of painting. The following dialogue is representative of the
results of the experiment:

\begin{verbatim}
EXPERIMENTER: Did you pick landscapes or portraits more often?
SUBJECT: Landscapes.
EXPERIMENTER: Did you notice whether I said anything during the experiment?
SUBJECT: You said "good" whenever I picked landscapes.
EXPERIMENTER: Do you think your tendency to pick landscapes was influenced
by my reinforcement of them?
SUBJECT: Of course not! I picked the landscapes because I liked them better than
the portraits. Besides, you only said "good" after I made my choice, so
what you said couldn't have influenced my selection of pictures.
\end{verbatim}

Bowers, supra note 109, at 245. Bowers concluded that merely noticing a crucial determinant
of behavior does not equate with appreciating it as determining the behavior. Logically, infor-
mation gleaned mindlessly, and perhaps not even noticed, would similarly determine behavior
in an unappreciated manner. Id.

\textsuperscript{128} See Bowers, supra note 109, at 246.
4. Caveats and Defenses

We should take the time to soften our claims and to anticipate at least one important criticism. We do not presume that people are supernatural and faultless gatherers of information. This phenomenon of nonconscious response to information should be more frequently observed when transactions costs and measurement costs are low. For example, a practiced golf swing is generally scripted behavior. If a golfer hears, however, that rotating the clubface through the ball will result in increased distance on his drives, it is unlikely that he will unconsciously improve his swing on the basis of this new information. Similarly, a valuable typing tip from my secretary will probably fail to become imbedded in my typing script. Clearly, valuable information does not automatically enhance the performance of scripted tasks. Transaction costs might be too high. A golf swing is a complex and unnatural behavior. Most golfers readily will admit that the best swings are those mindlessly performed; mindless repetition is the only path to success. A behavior that is purposely scripted at a great cost may be highly resistant to change. In fact, some scripted behaviors (undoubtedly my typing is one of them) may be so resistant to change that conscious relearning may be the only method. In addition, new information is not always clearly valuable. How do we know that this golf tip or typing tip will work? Just how valuable is the tip? The value of new information may be discounted by uncertainty.

In addition, and probably most importantly, behaviors like a golf swing and typing are not particularly communal activities. In other words, unlike driving, norms play a less important role. Vicarious learning and unconscious movement toward a norm that incorporates new and relevant information would seem less likely to occur.

This section has already responded to one of the critiques presented in Part I. We hope that we have provided an answer to the simple criticism that “people just do not make rational, well-informed decisions in the face of legal rules.” This statement begs for an explanation as to how uninformed and irrational human beings possibly could react to liability rules in the way predicted by economics. Script theory suggests a mechanism by which such decisionmaking may occur in certain circumstances. Arguments based on cognitive illusions, however, deserve separate treatment.
Numerous studies, some of which are summarized in Section 3 of Part I.B, have been used to criticize the assumption that decisionmakers behave rationally and efficiently in the manner predicted by law and economics. These studies purport to demonstrate the existence of cognitive illusions. Basically, the subjects in these studies did not assess accurately relevant information, and consequently they made inefficient decisions. We do not question the validity of these results, but we do question the way they have been used in the debate over law and economics. These studies demonstrate not so much the existence of cognitive illusions, but that a script developed in one environment does not function effectively in a significantly different environment.

The subjects in the studies were presented with unfamiliar situations or problems, and, not surprisingly, their scripts sometimes failed them. Script theorists frequently cite various studies, especially one by Daniel Kahneman and Amos Tversky, as support for the existence of scripted behavior (although they are cited by critics of economics as having proven that man is not perfectly rational). One way to illustrate scripting is to present people with a situation where a script will fail them; evidence of significant failure is presumed to prove that the behavior has been directed by sources (e.g., a script) beyond the consciousness of the subject at hand. Such studies do several things: First, they enforce the conclusion that scripting is a common phenomenon. Second, they indicate that scripts probably work most efficiently in the environment in which they are developed. Third, they demonstrate that decisionmakers cannot adapt instantaneously.

The existence of cognitive illusions, however, does not necessarily show that on a grand scale human beings are inefficient decisionmakers. In addressing the claims central to Tversky and Kahneman's work, "one probably has to emphasize the shift-in-ecology argument: human brains formed in one ecology of problems are now being used in quite another." The conclusion to be drawn


130 See Langer, supra note 66, at 42-50 (summarizing several studies where scripts were invoked at inappropriate times).

131 Campbell, supra note 119, at 175.
from studies involving "shifted ecologies" should not be applied to human behavior in general. When people have adapted to a condition over time, a script that constitutes an efficient response to that condition will not necessarily work in a radically different arena.

The research of Robert Lucas indicates that economic theory is probably most applicable to scripted behavior. Lucas canvassed a number of studies and concluded that as human behavior adapts, it becomes more efficient. The more familiar the task, the more efficiently it will be performed. Mindless/scripted behavior, of course, would seem to be the ultimate in adapted behavior. In commenting on Lucas' work, Sidney Winter reaches back with approval to an apt quote from Joseph Schumpeter:

The assumption that conduct is prompt and rational is in all cases a fiction. But it proves to be sufficiently near to reality, if things have had time to hammer logic [a script?] into men. Where this has happened, and within the limits in which it has happened, one may rest content with this fiction and build theories upon it.

At least as applied to scripted behavior, law and economics may be able to "rest content" with its assumptions. The critique of those impressed with the study of cognitive illusions does not validly extend to the bulk of behavior that is script-driven within the environment where the script was adapted.

A different sort of attack on studies demonstrating cognitive illusions comes from Kenneth Bowers. He notes that these studies demonstrate that intuition frequently does not generate a correct final solution to a problem. "[P]eople participating in investigations of human judgment are typically required to generate final solutions intuitively, whereas intuition might better be conceptualized as the process of generating hunches or hypotheses that require further testing before they are accepted as valid." Bowers goes on to defend intuition in the "context of discovery" as opposed to the "context of

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132 See Lucas, supra note 125.
133 Id. at 228-29.
134 See S. Winter, Comments on Arrow and on Lucas, in Rational Choice, supra note 3, at 248 (quoting J. Schumpeter, The Theory of Economic Development 80 (1934)).
135 In fact, this may suggest when law and economics is most likely to fail: where no script exists or when a shift in ecology has occurred.
137 Id. at 73.
Mindlessness and Law

In other words, decisionmaking is often multi-staged. Intuition (a "discovery script") may generate a preliminary hypothesis that, depending on the novelty of the situation, may require conscious consideration before a judgment is made. Simply because intuition is an inefficient means to consistently generate final solutions (as Tversky and Kahneman have proven), this does not mean that reliance on intuition in the discovery context is inefficient. Nor does it mean that because man is intuitive, he is irrational.

We hope that the assumptions underlying economic theory as applied to law no longer seem so exaggerated. Given the predominance of scripted behavior, economic theory should remain a valid tool of analysis in a wide range of situations. By the same token, script theory may help explain the failure of an application of economic theory to a particular case. Finally, we note the important role played by norms in script theory. In the next Section we relax the assumption that legal rules provide relevant information that should affect behavior. We then examine whether evidence of the importance of nonlegal community norms threatens the law and economics enterprise.

B. Custom and the Common Law

Script theory provides a mechanism that explains how information can affect behavior. Economic analysis of law, however, posits more than the adjustment of decisions to relevant information. It hypothesizes that legal rules are a particularly important source of information—so important, in fact, that a change in a legal rule often will result in a change in behavior. Obviously, evidence that legal rules do not affect decisionmaking seems threatening to the conclusion that common law tort rules generally promote efficient behavior. This Section explores the alleged "nonimportance" of legal rules in light of script theory.

To illustrate, simply because I may conform to a less careful driving norm in Georgia than I did previously does not necessarily mean that I am responding to a change in legal rules. Evidence of the sort

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138 Id.; see also H. Reichenbach, Experience and Prediction 6-7 (1938) (defining "context of discovery" and "context of justification").
139 Presumably, in a novel situation a script is less reliable, therefore necessitating conscious reassessment.
140 See supra notes 36-40 and accompanying text.

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gathered by Ellickson suggests that nonlegal community values may have a greater impact on decisionmaking behavior than do legal rules. He found, for example, that liability decisions made by residents of Shasta County, California, conformed to local dispute resolution values and not to applicable California law. Script theory indicates that scripted behaviors that are responsive to new information tend to gravitate to a community norm; it would be consistent with Ellickson's position to assert that a community norm may not always be driven by the applicable common law rule. Residents of Shasta County seemed to be more motivated by the realization of a local cooperative value than by the applicable common law rule.

I. Fine Tuning the Rational Actor Model

It has been suggested that evidence like that collected in Shasta County demonstrates the need to adjust the assumptions underlying law and economics. Yet if script theory adequately explains how mindless behavior may often mimic that predicted by the economists' rational actor, then there is no need to fine tune the assumption. Evidence collected by social scientists may strongly suggest that economists should weigh factors other than the relevant common law rule in predicting decisionmaking; the more comprehensive the evidence of an individual's or group's utility function, the more accurate the predictions will become. But economists recognize this. After reading Ellickson's study of decisionmaking in Shasta County, an economist should be able to apply the familiar, rational actor model and correctly predict behavior. Of course, it will be a different prediction

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141 In other words, script theory provides a response to critics like Latin, who will likely continue to doubt economic theory until a credible mechanism explains how people respond to legal rules of which they are seemingly unaware. Script theory is neutral in the Ellickson/Posner debate, however, because it could explain unconscious responses to either legal rules or nonlegal community values.

142 See Ellickson, Of Coase and Cattle, supra note 2. Ellickson suggests these norms may be more efficient than the applicable common law rule. If this were so, it would be a strong critique of the assertion that common law rules maximize wealth.

143 See Ellickson, Culture and Human Frailty, supra note 2, at 26 (calling not for a paradigm shift, but "rather only a paradigm improvement").

144 Id. at 55.

145 Presumably, all extant valuable information is normally plugged into the simple economic model. Information on particular utility functions, however, is seldom available. The wisdom of increasing the cost of using the simple economic model by actively developing information on unknown utility functions is a difficult question that we do not seek to answer.
than one about behavior in some other county, because the sociologist
has given the economist important information about different rela-
tive values.

Ellickson’s work therefore is consistent with the rational actor
model. People in different locales have different tastes. In identical
situations, two people may make different decisions, and depending
on the tastes of the decisionmakers, opposite choices may be utility-
maximizing. Take, for instance, the decision to employ a man or a
woman (with slightly better credentials) for a job whose tasks are gen-
der-neutral. A decisionmaker who is indifferent to gender maximizes
utility by hiring the woman. A decisionmaker who derives utility
from discriminating against women satisfies this taste for discrimina-
tion and maximizes utility by hiring the man. 146 Given adequate
information about the decisionmaker, an economist will correctly pre-
dict different employment decisions.

The usefulness of the rational actor assumption is not threatened by
the suggestion that rational actors in different places might make dif-
ferent decisions because the norms of their respective communities
affect their utility functions. It may, however, threaten claims about
the efficiency of the common law.

2. Custom, Efficiency, and the Common Law

If the common law, as claimed by proponents of law and econom-
ics, is a system of rules that encourages the maximization of utility by
providing appropriate incentives and disincentives, then the claim
that legal rules frequently do not affect behavior must be taken seri-
ously. It is essentially a claim that the common law, as described by
legal economists, does not work. A legal rule may not affect behavior
for several reasons. First, it may be essentially unknown. Even the
application of script theory to tort law would suggest that at least a
critical mass of community members must have encountered the rule
for the group norm to be affected. Second, and most importantly
here, a relevant cultural value or taste may “override” the rule. If
such cultural values frequently “override” the common law, and com-

146 Recognizing this taste for discrimination has now become routine. See Posner, supra
note 1, at 1321 (“Misogyny, for example, is a morally unattractive trait, but from an economic
standpoint it may be no different in character from having an aversion to cabbage or rutabaga
...”); see also G. Becker, The Economics of Discrimination 14 (2d ed. 1971) (measuring
prejudice as the amount of money a person will pay to satisfy a taste for discrimination).
pliance with these values represents the utility-maximizing satisfaction of tastes in an economic sense, then the law and economics enterprise may need more than fine tuning.

The nature of the common law, however, suggests that the Shasta County experience should be infrequent for four reasons:

a. **Custom.** Much of the common law springs not from the theoretical project of a group of early judges, but from the custom of the people. Professor A.W.B. Simpson in his now familiar essay *The Common Law and Legal Theory* orudes persuasively that the origin of most common law rules is to be found in the actual practice of the people whose behavior they governed. The Law Merchant, developed by early English businessmen and explicitly based on their own commercial practice, is an easily identifiable example of this phenomenon. If common law rules arise from custom, which presumably is nothing more than the way in which a group of people satisfy a set of similar tastes, then it would not be surprising to find that the common law and community norms seldom diverge. When custom is the source of the common law, the content of the law should usually incorporate the sort of values identified in the Shasta County study.

b. **Rules Accommodating Culture.** The content of the common law itself is sensitive to diversity. The backbone of tort law is the "reasonable person." Reasonableness is an absolute defense to many tort claims. Who is the reasonable person? How does this person behave? A more slippery legal concept hardly could be imagined. The reasonable person may be nothing more than the "typical" person, the normal person we actually see in our community. What is reasonable may be what is acceptable under a community's norms. The concept of the reasonable person allows tort law to flex and adapt to changes in a society. It effortlessly incorporates custom, and therefore a culture's values, into law. Thus, tort rules generally may take into account the behavioral norms identified by Ellickson.

In addition, other common law rules expressly give individual actors the opportunity to satisfy their tastes. The idea of freedom of contract (and freedom to breach and pay damages instead) permits people to satisfy a very wide variety of tastes. It is expressly designed to allow people to place their own value on what they do, hence the

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rule that contract damages are based on the expressed subjective value of performance to the nonbreaching party.\textsuperscript{148} Common law contract law permits members of a community to write their own enforceable rules.

c. Adaptability. The common law never has remained static. Law professors differ on how and why the common law mutates, but its flexibility is undeniable. If Professor Simpson is right about custom being the driving force behind the common law, then changes in the law most likely may be traceable to changes in cultural norms. The dissolution of common law privity rules, the rise of unconscionability, and the fall of the strict at-will doctrine may have been in response to changing value systems. In fact, many decisions expressly justify changes in the law on the basis of changes in society.\textsuperscript{149} The adaptability of the common law should make gross incongruencies between legal rules and cultural values, such as those found in Shasta County, the exception rather than the rule.

d. Circularity. The assertion that cultural norms are heavily influenced by legal rules should be relatively uncontroversial. Given the existence of a powerful governmental apparatus designed to implement the law, an army of professionals committed to upholding the law, and a media fascinated with presenting the law to the public, community values cannot remain unaffected. The more powerful the force of law, the less likely we should observe divergences between legal rules and cultural norms. The institution of the common law itself must play a role in the creation and enforcement of norms.

The foregoing suggests that common law rules and cultural norms seldom should diverge (or seldom should have diverged before our current age of statutes). An interesting study of norms in the whaling industry conducted by Ellickson suggests just that.\textsuperscript{150} He found that a tight knit community of whalers developed their own rules (that

\textsuperscript{148} See, e.g., Groves v. John Wunder, 205 Minn. 163, 286 N.W. 235 (1939) (measure of damages is expected value of completed performance); Radford v. De Froberville, 1 All E.R. 33 (1978); Restatement of Contracts § 346, comment c, illustration 4 (1932).

\textsuperscript{149} See Escola v. Coca-Cola Bottling Co., 24 Cal. 2d 453, 466, 150 P.2d 436, 443 (1944) (Traynor, J., concurring) ("The manufacturer's obligation to the consumer must keep pace with the changing relationship between them."); Tuttle v. Buck, 107 Minn. 145, 148, 119 N.W. 946, 947 (1909) ("It must be remembered that the common law is the result of growth, and that its development has been determined by the social needs of the community which it governs.").

\textsuperscript{150} See Ellickson, Whaling Industry, supra note 34.
tended to be efficient) for settling whale ownership disputes. Interestingly, common law judges uniformly deferred to local whaling custom in deciding the few adjudicated disputes.\textsuperscript{151}

Far from threatening economic analysis of law, the close relationship between the common law and cultural norms indicates that the common law is profoundly concerned with the maximization of utility in the way it incorporates and facilitates the shared experience of the community.\textsuperscript{152} Ellickson claims that the time has come for economists to recognize the importance of cultural norms (positing, we suppose, "aculturated man" as well as "rational man"). Law and economics swallowed that pill long ago in asserting that the common law generally was efficient. This is not to say that the common law is efficient. We merely assert that the common law by its history and nature generally has accommodated the sort of norms identified by those such as Ellickson. If this is true, then the occasional divergence should not threaten the descriptive conclusion that common law rules are designed to promote efficiency. If so, law and economics remains a useful analytical tool.

3. Mindlessness and the Common Law

This discussion of the origin of the common law has implications for the application of theories of mindlessness. If common law rules, unlike statutory rules, are derived from custom and social norms, we might not be surprised to see the economic model work when people are conforming to cultural norms that approximate legal norms. In other words, if our decisions conform to community behavioral norms, and those norms are generally the fountainhead of the law, then our decisions usually should be the rational responses predicted by economists. In fact, if mindless behavior is more conforming than mindful behavior, it may be the more rational in an economic sense. We do not abandon our suggestion that people respond to statutory law as well, but we find it worth noting that the common law may be especially amenable to economic analysis for this reason.

\textsuperscript{151} Id. at 85.

\textsuperscript{152} Alas, our communities are much bigger than they used to be. The power of the common law to facilitate the creation of wealth probably is inversely related to the size of the jurisdiction.
IV. CONCLUSION

This Article has, in part, been an attempt to respond to those who contend that "[a] richer model for positive analysis . . . 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." In the context of negligence law, we have applied recent insights from the field of psychology (script theory) and recognized the overwhelming importance of social influences on human behavior. Strangely, no need to revise the economic model has emerged. Script theory explains why people frequently react to tort rules as economics might predict. It acknowledges the behavioral influence of community values and in no way undercuts the economic model. In short, psychology and sociology enrich our understanding of the common law. Yet they do not threaten the explanatory power of the economic model; rather they seem to complement it. Given the workability and simplicity of the model, fine tuning seems unnecessary.

Script theory helps defend law and economics from those who attack its assumption of a rational decisionmaker on the basis that people frequently lack adequate information and fail to adequately process the information they do have. Script theory substantially advances two key propositions underlying this defense: that individuals can be affected by enviromental factors (including legal rules) without being consciously aware of their effect; and that even if only some individuals are affected by these nonconscious factors, others will often follow. We cannot claim to have proven the further proposition that the effect of these nonconscious factors through either mechanisms (1) or (2) tends to make individuals' behavior efficient. Nonetheless, script theory does render it more plausible.

We should once more note the modesty of our original purpose in exploring the validity of the rational decisionmaker assumption in the economic model. Economics might be applied fruitfully to law without an exploration of this assumption. If hundreds of studies demonstrate that the model works accurately, then who cares why the model works? Good studies, however, are difficult and expensive to perform. Room for argument about the success of the model remains. Hopefully, the exploration we have conducted will enhance the credibility

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153 Ellickson, Culture and Human Frailty, supra note 2, at 23.

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of the model in the absence of overwhelming empirical evidence. In fact, in that the studies we have discussed seem consistent with the working of the model, that body of data should be seen as indirectly supportive. Finally, resort to concepts such as script theory may be used in the future to explain why economics cannot explain a particular phenomenon in the common law. Examining the validity of a theoretical assumption should be confined to such modest goals: enhancing credibility, providing linkage to other consistent bodies of empirical data, and explaining divergences in observed phenomena.

For example, Mark Grady has suggested that economics does not adequately explain a subset of cases where the tortfeasor has inadvertently forgotten to take a precaution. See Grady, Why are People Negligent? Technology, Nondurable Precautions, and the Medical Malpractice Explosion, 82 Nw. U.L. Rev. 293 (1988). Reasonable people sometimes forget. Remembering to take a precaution may be costly. Economics would predict that courts would take this cost into account when determining negligence. Grady claims they do not. He claims that courts employ a per se negligence rule in cases of forgetfulness. Id. at 303. This rule ignores the cost of remembering and cannot be explained by economics that (under the Hand formula) would suggest that some forgetfulness is not necessarily negligent.

Script theory may explain the existence of this apparent divergence. If the cost of remembering is usually very low, then the per se rule for forgetfulness would not be inconsistent with the economic proposition that the common law should take such costs into account in determining negligence. Grady assumes the cost is typically high and, therefore, finds the rule troubling. If, however, a precaution is scripted (for example, mindlessly using a turn signal), then the cost of remembering typically should be low. Once a script is in place, it functions at a low cost, suggesting that a failure of the common law to account for such costs is consistent with economics, as informed by script theory.