

EVOLUTIONARY THEORIES OF COMMON LAW  
EFFICIENCY: REASONS FOR (COGNITIVE)  
SKEPTICISM

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Professor Jeffrey Stake's article on legal evolution raises important, even tantalizing, questions from the perspective of behavioral theories of law.<sup>1</sup> Those theories have emphasized the intellectual frailties of human persons—frailties that cloud judgment and lead decisionmakers astray, sometimes in systematic ways. The extent to which persons nonetheless allocate optimally their scarce cognitive resources is a subject of ongoing debate today within the field of cognitive psychology.<sup>2</sup> Be that as it may, the finding that decisions reflect the bounded rationality, rather than global rationality, of the persons who make them distinguishes cognitive psychology from economics and, by extension, behavioral analysis of law from conventional law and economics.

From a behavioral perspective, recognition of the potential for irrationality by citizens can serve to justify paternalistic rules that operate to limit choice, and thereby to protect citizens from the regret that would accompany poor decisions.<sup>3</sup> Yet the cognitive deficiencies of judges themselves—being every bit as human as the persons whose suits they hear—suggest that they, too, are apt to make imperfect choices. As concerns their lawmaking function, judges' efforts to craft ideal common law rules are doomed to failure<sup>4</sup>—a failure that

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1. Jeffrey Evans Stake, *Evolution of Rules in a Common Law System: Differential Litigation of the Fee Tail and Other Perpetuities*, 32 FLA. ST. U. L. REV. 401 (2005).

2. See, e.g., Edward L. Glaeser, *Psychology and the Market*, AM. ECON. REV. PAPERS & PROC., May 2004, at 408; Peter M. Todd & Gerd Gigerenzer, *Bounded Rationality to the World*, 24 J. ECON. PSYCHOL. 143 (2003).

3. The literature on this subject is now vast, as the notes accompanying articles within this Symposium attest. On the paternalistic implications of behavioral analysis of law, see Adam J. Hirsch, *Spendthrift Trusts and Public Policy: Economic and Cognitive Perspectives*, 73 WASH. U. L.Q. 1, 17-22 (1995); Christine Jolls, Cass R. Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1541-45 (1998); Jeffrey J. Rachlinski, *The Uncertain Psychological Case for Paternalism*, 97 NW. U. L. REV. 1165 (2003); and Eyal Zamir, *The Efficiency of Paternalism*, 84 VA. L. REV. 229, 254-75 (1998). Compare Cass R. Sunstein & Richard H. Thaler, *Libertarian Paternalism Is Not an Oxymoron*, 70 U. CHI. L. REV. 1159 (2003), with Gregory Mitchell, *Libertarian Paternalism Is an Oxymoron*, 99 NW. U. L. REV. (forthcoming 2005).

4. I explore the implications of bounded rationality for the lawmaking process in Adam J. Hirsch, *Cognitive Jurisprudence*, 76 S. CAL. L. REV. 1331 (2003) [hereinafter Hirsch, *Jurisprudence*]; and Adam J. Hirsch, *Inheritance and Inconsistency*, 57 OHIO ST. L.J. 1057, 1144-62 (1996) [hereinafter Hirsch, *Inconsistency*]. See also Stephen M. Bainbridge & G. Mitu Gulati, *How Do Judges Maximize? (The Same Way Everybody Else*

(by analogy) paternalistic mechanisms can forestall only in limited respects.<sup>5</sup>

Accordingly, scholars who posit that judges generally aspire to establish efficient rules<sup>6</sup> cannot thereby conclude that the common law tends ineluctably in that direction. Those scholars must take into account the pressures of time and shortcomings of ability that degrade judicial decisionmaking. Anything concocted by the human mind—including law—betrays the infirmities of that mind. At any rate, common experience with common law suggests that judges have varied, and often eclectic, tastes<sup>7</sup>—including, increasingly, a taste for policies inspired by the subject matter of this Symposium.<sup>8</sup>

Thoughtful design is not, however, the only means whereby human artifacts can come into being. Many artifacts actually derive from chance discovery or protracted processes of trial and error. Necessity is the mother of experimentation, as well as invention, and through such means artifacts can be said to *evolve*—as forms of life evolve—through undirected processes of natural selection. Over long spaces of time, this remarkable engine imbues nature’s handiwork with a degree of inadvertent perfection, of apparent design, that no mortal designer could begin to replicate (which is not to say that even nature is perfectly perfect<sup>9</sup>). Some artifacts display the very same characteristic.<sup>10</sup>

All of this has intriguing implications for theories of legal change. Economists maintain that the market comprises a blind mechanism that drives traders toward efficient production of wealth. The state of their minds becomes irrelevant because traders take their cues from

*Does—Boundedly): Rules of Thumb in Securities Fraud Opinions*, 51 EMORY L.J. 83 (2002); Hillary A. Sale, *Judging Heuristics*, 35 U.C. DAVIS L. REV. 903 (2002).

5. Under a system of separation of powers, some of those paternalistic mechanisms must be, more precisely, self-paternalistic. The self-imposed doctrine that dicta are not binding provides an example. See Hirsch, *Jurisprudence*, *supra* note 4, at 1366-67.

6. See RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* § 19.2, at 532-33 (6th ed. 2003).

7. Even Judge Posner concedes that “there is more to justice than economics.” *Id.* § 2.3, at 28.

8. See James A. Henderson, Jr. & Jeffrey J. Rachlinski, *Product-Related Risk and Cognitive Biases: The Shortcomings of Enterprise Liability*, 6 ROGER WILLIAMS U. L. REV. 213, 218 & n.21 (2000); Gregory Mitchell, *Mapping Evidence Law*, 2003 MICH. ST. L. REV. 1065, 1145 n.162.

9. See STEPHEN JAY GOULD, *The Panda’s Thumb*, in *THE PANDA’S THUMB: MORE REFLECTIONS IN NATURAL HISTORY* 19, 24 (1980).

10. See HENRY PETROSKI, *THE EVOLUTION OF USEFUL THINGS* 211 (1992) (“[A]s has been the case throughout history, craft and engineering advances could and often did proceed even in the absence of scientific explanations.”). For an early recognition of the power of protracted trial-and-error, allowing, for example, a “complicated[,] useful and beautiful” ship to be built by a “stupid mechanic,” see DAVID HUME, *DIALOGUES CONCERNING NATURAL RELIGION* 130 (Stanley Tweyman ed., Rutledge New ed. 1991) (1779).

the invisible hand.<sup>11</sup> If common law likewise takes shape as a consequence of blind evolutionary processes, through “the system[’s] biases of its own,” as Professor Stake puts it,<sup>12</sup> then it possesses the potential to reach a degree of adaptability, a developmental sophistication, that only a mindless process can achieve. From a cognitive perspective, law would burst the bounds of human rationality.

Ultimately, however, I remain unpersuaded by the analogy and skeptical of the model. If the common law features some elements of an evolutionary system, it is also, through and through, a participatory system. Human participation cannot but leave its indelible stamp.<sup>13</sup>

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To be sure, one can identify a fundamental similarity between the dynamics of a common law system and a natural system. Each includes an apparatus for self-replication. In nature, that apparatus is the DNA molecule; in law, it is the jurisprudential principle of *stare decisis*. But the direct parallel between the dynamics of the two systems pretty much ends there. In nature, a large population of organisms contains stable polymorphisms and, at each generation, a small number of spontaneous genetic mutations. Those organisms compete with one another for survival, producing adaptations in response to environmental change.

Within a hierarchical legal system, the opportunity for *legal* polymorphisms and mutations is quite limited. Once a rule is adopted by the high court, the replicative apparatus of precedent is especially strong and conservative in suppressing variations within the manifold lower courts. Only in cases of first impression can alternative rules coexist in lower courts—and even then, those alternatives do not proceed to compete with each other in a blind way; in due course, the high court will select one alternative or another on the basis of reasoned choice. Once the high court has ruled on an issue, the common law for the jurisdiction is set. There is a relevant “genetic” population of one and no store of diversity to meet new threats.

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11. An individual trader in a market “neither intends to promote the public interest, nor knows how much he is promoting it.” 1 ADAM SMITH, *AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS* 477 (Edwin Cannon ed., Univ. of Chicago Press 1976) (1776).

12. Stake, *supra* note 1, at 406. For a recent survey of evolutionary theories of law, see Paul H. Rubin, *Why Was the Common Law Efficient?*, in *THE ORIGINS OF LAW AND ECONOMICS: ESSAYS BY THE FOUNDING FATHERS* (Francesco Parisi & Charles Rowley eds. forthcoming 2005), reprinted with revisions in Paul H. Rubin, *Micro and Macro Legal Efficiency: Supply and Demand*, 13 *SUP. CT. ECON. REV.* (forthcoming 2005).

13. In this respect, my thesis parallels analyses by cognitive theorists who conclude that the blind pressures of an economic market generally will not suffice to extinguish irrational behavior by traders. See, e.g., Thomas Russell & Richard Thaler, *The Relevance of Quasi Rationality in Competitive Markets*, 75 *AM. ECON. REV.* 1071, 1074 *passim* (1985).

The evolutionary mechanisms conjectured by legal scholars differ structurally from the mechanism of natural selection. The one most closely akin to the model of natural selection, sometimes termed “differential investment,”<sup>14</sup> posits that parties with more to gain from a favorable rule will tend to invest more in the litigation contest than their adversaries with less at stake, leading inexorably in the direction of the rule that creates the greatest wealth (and hence efficiency). Over time, the more efficient rule becomes the “fitter” rule and survives because it is backed by greater adversarial resources. Even in a population of one, where no alternative rule is extant, the relentless pressure of periodic, lopsided litigation exerts itself upon an inefficient rule until eventually it gives way.

Even taking for granted the hypothesis that judicial lawmaking operates in the manner postulated, responding to the functional equivalent of market signals,<sup>15</sup> one can identify a number of soft spots in this theory. Those soft spots appear even when we assume global rationality and probe the model with the traditional tools of law and economics.<sup>16</sup> Of course, the amount any particular litigant stands to gain from a rule change bears no necessary relation to the amount that *all* potential litigants would gain—a random element that theorists get around by assuming (not unreasonably?) that, on average, the ratios of individual gains and losses will correspond with the ratios of aggregate gains and losses.<sup>17</sup> There is also the problem that rules are sticky. Whereas the prospect of greater wealth creates incentives to pour money into litigation, the doctrine of precedent stacks the adversarial deck against a party who seeks to revise a rule, whether or not the existing rule is efficient. Hence, advocacy of a rule change should prove more costly than defense of precedent. Theorists have acknowledged this point by limiting the differential-investment model to instances where rules are sufficiently inefficient initially to overcome the structural bias in favor of

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14. Robert Cooter & Lewis Kornhauser, *Can Litigation Improve the Law Without the Help of Judges?*, 9 J. LEGAL STUD. 139, 156 (1980).

15. Of course, any number of institutional protections function nowadays to insulate judges from direct economic incentives, but that does not mean they are impervious to intellectual influence. Proponents of this model are not so bold as to assert that judicial lawmaking goes to the highest bidder, only that “any increment in legal expenses  $c$  will induce an increment, however small, in the probability  $\pi$  of winning a favorable decision.” John C. Goodman, *An Economic Theory of the Evolution of Common Law*, 7 J. LEGAL STUD. 393, 394 (1978).

16. I am hardly the first observer to raise critical objections to these theories. *See, e.g.*, Gillian K. Hadfield, *Bias in the Evolution of Legal Rules*, 80 GEO. L.J. 583, 584-85 *passim* (1992) (arguing that common law rules are reconsidered within cases that form a biased subset of the varied, potential disputes to which the rule applies, and for which the rule may or may not achieve efficiency—a criticism the author applies to both advertent and inadvertent models of lawmaking dynamics).

17. *See* Goodman, *supra* note 15, at 404-06; *see also* Stake, *supra* note 1, at 407-08.

stasis.<sup>18</sup> Yet, the difficulty remains that common law change can occur, and historically has tended to occur, incrementally.<sup>19</sup> If we factor incrementalism into the instant model, then we would expect common law rules to move *toward* efficiency, and then to cease moving at some point short of efficiency, once the marginal cost of dislodging the next increment of precedent begins to exceed the marginal gain anticipated by the rule change.

The stickiness of rules presents a second obstacle to legal efficiency. When persons contemplate investing in litigation, they must also decide how to allocate their capital between analysis of law and development of facts. Given the stickiness of legal doctrine, rational parties should often find fact development more cost-effective. Hence, litigation “portfolios” might lean systematically toward producing efficient *outcomes*, without generating efficient rules.

Still another difficulty stems from the circumstance that, to the extent parties can bid for them, common law rules comprise public goods: those who pay for rules cannot prevent others from sharing in their use. Individual parties therefore have a rational incentive to underinvest in rules, hoping they can instead free ride on the expenses borne by other, similarly situated parties.<sup>20</sup> Once again, theorists acknowledge this problem,<sup>21</sup> although they need also to consider how it is magnified in the special context of litigation: Parties divide their investment between the public good of law and the development of facts, which remains a *private* good that others cannot share. This second investment outlet should enhance rational incentives to curtail production of public goods.

And all of this comes before we get to problems of irrationality! The instant model of common law evolution assumes judicial conduct in rulemaking to be mechanistic, following the money, so to say, but the model nevertheless presupposes conscious deliberation at an earlier stage by parties to the litigation. Hence, the differential-investment model remains adulterated by an element of cognition: From a behavioral perspective, the model moves us out of the frying pan and into the fire.

Consider status quo bias, the demonstrated tendency of persons to value what they already own more than the prospect of gaining

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18. See Goodman, *supra* note 15, at 394-95, 405.

19. See MELVIN ARON EISENBERG, *THE NATURE OF THE COMMON LAW* 70-74, 105-18 (1988). For an earlier recognition by an astute observer, see *S. Pac. Co. v. Jensen*, 244 U.S. 205, 221 (1917) (Holmes, J., dissenting).

20. On the economics of public goods, see JAMES M. BUCHANAN, *THE DEMAND AND SUPPLY OF PUBLIC GOODS* (1968).

21. See Goodman, *supra* note 15, at 405-06. Collective action could solve the problem, but different interest groups have varying abilities to operate collectively. *Id.*

something else of equal value.<sup>22</sup> Persons grow accustomed to the things—and to the rights—they possess and tend relatively to overvalue those things and rights, even if they would prefer other ones were they starting from scratch.

In other words, familiarity breeds *content*. Status quo bias should cause parties to place a premium on the legal status quo, be it efficient or inefficient.<sup>23</sup> However fundamental to economics, the assumption that persons assess the wealth created by rights objectively finds no support in cognitive psychology.

Along with assessments of gain and loss, litigation entails assessments of risk. And, here again, we must contend with cognitive illusions. Consider the availability heuristic, the tendency of persons to estimate the probability of an event by virtue of how readily instances of that event spring to mind.<sup>24</sup> Such a thought experiment leads persons to exaggerate the relative frequency of unusual, and thereby vivid, events, while underestimating that of the mundane. In connection with litigation, instances in which courts overrule common law decisions ought to be more salient than those upholding precedents, leading parties to envision rules as more unstable, more protean, than they actually are. This illusion might lead parties who would benefit from a rule change to underestimate the investment necessary to attain that goal; vice versa, those parties who benefit from an existing rule may be led by the same illusion to overinvest in defending the status quo.

If status quo bias and the availability heuristic add (in different ways) to the friction impeding legal dynamics, any number of other cognitive—and, for that matter, cultural, emotional, or sociobiological—forces could affect litigation expenditures randomly, thereby contributing to the aimlessness of the common law. Consider one more example: the sunk-cost effect.<sup>25</sup> People's sense of endowment in investments they have made, moneys already sunk into a scheme,

22. For a survey of the copious literature on this subject, see JONATHAN BARON, THINKING AND DECIDING 288-91 (3d ed. 2000). *But cf.* Charles R. Plott & Kathryn Zeiler, *The Willingness to Pay/Willingness to Accept Gap, the "Endowment Effect," and Experimental Procedures for Eliciting Valuations*, 95 AM. ECON. REV. (forthcoming 2005) (questioning the existing body of evidence).

23. Within economic theory, path dependence comprises a rational echo of status quo bias: The expense private parties would have to bear to convert to a new legal rule can outweigh its efficiency. For judicial recognitions of path dependence as a policy justification for legal stasis, see Hirsch, *Inconsistency*, *supra* note 4, at 1157-58 & n.295 (1996); and Adam J. Hirsch, *Inheritance Law, Legal Contraptions, and the Problem of Doctrinal Change*, 79 OR. L. REV. 527, 532 n.19 (2000). *See generally* Oona A. Hathaway, *Path Dependence in the Law: The Course and Pattern of Legal Change in a Common Law System*, 86 IOWA L. REV. 601 (2001); Mark J. Roe, *Chaos and Evolution in Law and Economics*, 109 HARV. L. REV. 641, 643-62 (1996).

24. The literature is surveyed in BARON, *supra* note 22, at 141-43.

25. *Id.* at 297-300.

induces them to invest more if necessary to prevent the sums already expended from being “wasted.” Hence, once in for a penny, persons are disposed to stay in for a pound.<sup>26</sup> In connection with litigation, the sunk-cost effect could trigger irrational bidding wars for favorable outcomes, as adversaries seek to protect sums they have already invested to win the case.

Professor Stake identifies the fee tail as an inefficient common law construct that may have owed its demise to evolutionary forces.<sup>27</sup> Yet, as Stake acknowledges, the fee tail was also very popular!<sup>28</sup> What could explain its popularity? Culture may have played a significant role, lending an aura of sacredness to ancestral property; or, as Stake speculates, sociobiological impulses could have been involved.<sup>29</sup> But there may also have been psychological forces at work: Persons appear to derive satisfaction from the very act of exercising control over things,<sup>30</sup> and a fee tail maximizes one’s temporal control over property.<sup>31</sup> Psychologists have also observed in persons a desire to sustain their identities beyond the grave,<sup>32</sup> and a fee tail likewise served this end, helping to preserve the memory and status of grantors, and thereby enabling them to achieve a kind of immortality.<sup>33</sup>

26. Professor Stake offers a contrary aphorism to suggest that “informal culture . . . teaches us to ignore sunk costs,” Stake, *supra* note 1, at 404-05, yet experimental evidence of the phenomenon is ample. See Hal R. Arkes & Catherine Blumer, *The Psychology of Sunk Cost*, 35 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 124 (1985) (reporting the results of ten experiments).

27. Stake, *supra* note 1, at 410-19.

28. *Id.* at 410, 415-17.

29. Persons are genetically predisposed to benefit their offspring (the phenomenon of “nepotism”), and the selfish gene is unconcerned about overall efficiency. Professor Stake suggests that by preserving wealth for future generations of descendants, a progenitor helps to ensure their reproductive success. *Id.* at 415. *But cf.* John H. Beckstrom, *Sociobiology and Intestate Wealth Transfers*, 76 NW. U. L. REV. 216, 255-58 (1981) (suggesting that the selfish gene becomes indifferent to inheritance by collateral relatives once they are sufficiently far removed as to be no more likely than an unrelated person to share that gene—an indifference that should also set in, by analogy, with respect to remote generations of descendants).

30. MYLES I. FRIEDMAN & GEORGE H. LACKEY, JR., *THE PSYCHOLOGY OF HUMAN CONTROL: A GENERAL THEORY OF PURPOSEFUL BEHAVIOR* 3-19 (1991).

31. For an early recognition, see SIR ARTHUR HOBHOUSE, *THE DEAD HAND* 183 (London, Chatto & Windus 1880) (observing that dead hand control “is very commonly exercised to its fullest extent, merely because it exists, and without the slightest reason beyond the pleasure of exercising power”).

32. Robert N. Butler, *Looking Forward to What? The Life Review, Legacy, and Excessive Identity Versus Change*, 14 AM. BEHAV. SCIENTIST 121, 123 (1970); David R. Unruh, *Death and Personal History: Strategies of Identity Preservation*, 30 SOC. PROBS. 340, 340-42 (1983). Modern terror management theory explains efforts to achieve “symbolic immortality” as buffers against the psychological anxiety caused by one’s awareness of the inevitability of death. Jamie Arndt et al., *Terror Management and Self-Awareness: Evidence that Mortality Salience Provokes Avoidance of the Self-Focused State*, 24 J. PERSONALITY & SOC. PSYCHOL. BULL. 1216, 1217 (1998).

33. For an early recognition, see HENRY HOME (LORD KAMES), *HISTORICAL LAW-TRACTS* 142 (Edinburgh, A. Kincaid 2d ed. 1761) (photo. reprint 2000) (1758) (“The man who has amassed great wealth, cannot think of quitting his hold, and yet, alas! he must die

Today's statutory successor to the fee tail, the dynasty trust, may owe at least part of its popularity to these same psychological forces.<sup>34</sup>

The fundamental point, however, is that bounded rationality condemns litigants to a cloudy understanding of their economic interests, irrespective of the legal issue at hand. In practice, parties can be expected to invest in litigation on the basis not of technical economics, but of intuitive or "folk" economics, applying the human equivalent of horse sense. If the differential-investment model was dubious to begin with, cognitive theory drives more nails into its coffin.

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The alternative model, sometimes labeled "differential litigation,"<sup>35</sup> is no less problematic under both the economists' and psychologists' paradigms. The fundamental assumptions of this model are that (1) inefficient rules prompt more frequent challenges than efficient rules,<sup>36</sup> and (2) courts overrule precedent infrequently and at random. By hypothesis, under these conditions, efficient rules should prevail for longer periods of time than inefficient ones.

The fact that law is a public good once again weakens the model, which depends on litigants choosing to challenge inefficient rules in greater numbers. As under the differential-investment model, any one litigant has a rational incentive to hold back and free ride off of the suits brought by other litigants.<sup>37</sup> In the absence of (very difficult and elusive) cooperation,<sup>38</sup> the result could well be mass paralysis, not mass litigation.

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and leave the enjoyment to others. To colour a dismal prospect, he makes a deed . . . securing his estate . . . to those who represent him, in an endless train of succession. His estate and his heirs must for ever bear his name; [the] very thing to perpetuate his memory and his wealth.").

34. See Joshua C. Tate, *Perpetual Trusts and the Settlor's Intent*, 53 U. KAN. L. REV. (forthcoming 2005) (examining the promotional literature for dynasty trusts); see also Lawrence M. Friedman, *The Dynastic Trust*, 73 YALE L.J. 547, 548 (1964).

35. Cooter & Kornhauser, *supra* note 14, at 139.

36. Ostensibly, law here achieves "fitness" by virtue of the number of its advocates, rather than the strength of their individual suits. In nature, by analogy, species face a trade-off between the number and strength of offspring, because organisms have limited resources to devote to reproduction. DOUGLAS J. FUTUYMA, *EVOLUTIONARY BIOLOGY* 571-72 (3d ed. 1998). In the context of homo sapiens, see Kevin Majoribanks, *The Sibling Resource Dilution Theory: An Analysis*, 125 J. PSYCHOL. 337 (1991). Because the resources of litigants are also finite, such a trade-off should also exist in the realm of litigation, suggesting the possibility that the differential-investment and differential-litigation models are susceptible to theoretical consolidation.

37. For a theoretical admission of this problem as a weakness of the model, see Paul H. Rubin, *Why Is the Common Law Efficient?*, 6 J. LEGAL STUD. 51, 60 (1977).

38. In this context, an interest group would have to act not merely collectively but also through coordinated actions by its individual members.

In addition, consider how this process plays out within the prevailing, hierarchical legal system: Inefficient rules are relitigated initially in the *lower* court, which cannot “underrule” them, and then decisions upholding precedent are appealed; the high court in the vast majority of jurisdictions exercises discretion over which appeals it will grant,<sup>39</sup> and in order to divide its effort among the range of issues it is pressed to hear, the high court filters out repetitive cases. Hence, at the acme of the legal system, where overruling can occur, suits will *not* be tried in the same proportion as they are brought in the baseline court; indeed, the frequency with which those suits come before the high court may bear no relation at all to the frequency with which they arise in lower courts.

And, once again, this is only the beginning; we need also to ponder the implications of psychology. The assumption that inefficient rules trigger more suits follows from the standard economic model of litigation. This model posits that if competing litigants value a suit equally, they have a rational incentive to settle out of court rather than bear litigation expenses (which comprise a reciprocal dead-weight loss).<sup>40</sup> If a rule is inefficient, on the other hand, the party who would benefit from a rule change has more to gain from the litigation (given the prospective value of the alternative, efficient rule) than the party who benefits from the existing, inefficient rule, thereby reducing the opportunity for mutually beneficial settlement.<sup>41</sup>

Cognitive psychologists have cast doubt upon the soundness of the standard economic model, questioning the ability of litigants to assess accurately the value of a claim, and hence their propensity to settle a case, even if it would otherwise appear rational for them to do so. Several researchers have bolstered their challenges with experimental evidence. On the one hand, self-serving (or egocentric) biases may encourage parties toward overoptimism—and thus to overvalue their respective claims, spurring litigation.<sup>42</sup> Other psychological barriers to settlement include framing (whereby plaintiffs tend to be risk-averse because they frame settlement as a gain, whereas defendants tend to be risk preferrers because they frame settlement as a loss), equity seeking (whereby parties pursue moral vindication of their claims), and reactive devaluation (whereby parties wish to

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39. ROBERT L. STERN, APPELLATE PRACTICE IN THE UNITED STATES § 1.5 (1981).

40. *E.g.*, POSNER, *supra* note 6, §§ 21.4-.5, at 567-73.

41. Rubin, *supra* note 37, at 53-55. This analysis assumes that both parties are repeat players who can benefit (or suffer) from the rule in the future. If both parties are one-time players, they have a mutual incentive to settle irrespective of whether the existing rule is efficient or inefficient. *Id.* at 56-57. For the scenario where only one of the two parties is a repeat player, see *infra* note 46.

42. George Loewenstein et al., *Self-Serving Assessments of Fairness and Pretrial Bargaining*, 22 J. LEGAL STUD. 135, 138-39 *passim* (1993).

avoid appearing to capitulate to an adversary).<sup>43</sup> On the other hand, the phenomenon of regret aversion (that is, the desire to avoid the experience of knowing and regretting that one has made a wrong decision) can help to produce settlement.<sup>44</sup> And, once again, status quo bias should render settlement of challenges to inefficient rules *more* probable by enhancing the value of inefficient rights for those who benefit from them, hence rendering them willing to pay more to retain them.<sup>45</sup> This phenomenon could shift parties benefitting from inefficient rights up into the “settlement zone” where averting litigation becomes mutually attractive.

Put simply, the decision to settle a case *vel non* in human terms translates into a matter of psychological complexity that finds no parallel in the cold calculations of economics.<sup>46</sup> Yet without those calculations, the instant model loses its power to predict patterns of litigation.

Of course, many parties make litigation decisions, concerning both expenditure and settlement, in consultation with expert attorneys. As professionals subject to market pressures of their own, those attorneys might be expected to develop some degree of immunity to irrationality, thereby dampening the irrational tendencies of the clients they advise. Some evidence supports this hypothesis.<sup>47</sup> At the same time, attorneys are human too. Several studies suggest that at-

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43. For a discussion of all three phenomena, see Russell Korobkin & Chris Guthrie, *Psychological Barriers to Litigation Settlement: An Experimental Approach*, 93 MICH. L. REV. 107 (1994); and Jeffrey J. Rachlinski, *Gains, Losses, and the Psychology of Litigation*, 70 S. CAL. L. REV. 113, 129 *passim* (1996).

44. Chris Guthrie, *Better Settle than Sorry: The Regret Aversion Theory of Litigation Behavior*, 1999 U. ILL. L. REV. 43, 45-46 *passim*.

45. See *supra* note 22 and accompanying text.

46. Compare Professor Frank Cross, who argues that irrationality, especially in the tort or product liability arenas, “has a positive effect on justness and efficiency in the law.” Frank B. Cross, *In Praise of Irrational Plaintiffs*, 86 CORNELL L. REV. 1, 6-7, 24, 27 (2000). Because product liability or other tort plaintiffs are typically one-time players with no interest in precedent, whereas defendants (such as manufacturers) may be repeat-players with a continuing interest in precedent, defendants have more at stake than plaintiffs, impeding settlement until the law favors the repeat player, irrespective of whether that outcome is efficient. See Rubin, *supra* note 37, at 55-56 (constructing a general model). Professor Cross argues that irrational impediments to settlement on the part of plaintiffs help to compensate for the imbalance of incentives. Cross, *supra*, at 19-24. Of course, that would be true only in one band of the spectrum of common law suits. But even within that narrow band, Cross’s analysis appears dubious: For plaintiffs and defendants are both subject to the same, unpredictable irrationalities! Hence, irrationality should not have systematic consequences, even in this context.

47. Chris Guthrie, *Panacea or Pandora’s Box?: The Costs of Options in Negotiation*, 88 IOWA L. REV. 601, 638-44 (2003); Russell Korobkin & Chris Guthrie, *Psychology, Economics, and Settlement: A New Look at the Role of the Lawyer*, 76 TEX. L. REV. 77, 95-121 (1997).

torneys exhibit in particular the sorts of egocentric bias that psychologists have previously observed in lay subjects.<sup>48</sup>

Attorneys may also have rational incentives to offer irrational advice. Attorneys benefit by increasing their own incomes—which could lead them to encourage all clients to invest more in litigation. On the other hand, whether litigation *or settlement* redounds to the advantage of attorneys is less clear and could vary, depending upon the circumstances. But whenever agents act on behalf of principals, there exists the prospect of agency costs—here operating potentially to warp litigation decisions.<sup>49</sup>

In sum, any number of (not exclusively) cognitive phenomena may function to distort decisionmaking by litigating parties, and thereby to interfere with legal-evolutionary processes. The irreducible fact of human participation in the common law process, here as litigant rather than as lawmaker, undermines the potential for truly automatic, noncognitive processes of legal change to unfold. We must nevertheless be careful to emphasize the limits of this critique: Cognitive phenomena do not operate systematically to create *countervailing* biases, channeling the common law in directions other than efficiency. They merely introduce noise into the system, rendering patterns of litigation erratic in the face of psychological cross-currents. Hence, they may slow—but not halt—the drift toward efficiency predicted by existing economic models. Still, there must come a point at which “noise litigants” drown out, for all intents and purposes, rational economic maximizers in the litigation marketplace.<sup>50</sup> Whether that point has been reached cannot readily be hypothesized, although it might be susceptible to empirical investigation.

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Moving beyond theory, brief inspection of the common law provides abundant evidence of its production by decisionmakers with

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48. Donald C. Langevoort, *Ego, Human Behavior, and Law*, 81 VA. L. REV. 853, 860-65 (1995) (citing to prior studies); Richard W. Painter, *Irrationality and Cognitive Bias at a Closing in Arthur Solmssen's The Comfort Letter*, 69 FORDHAM L. REV. 1111, 1128-33 (2000).

49. See Korobkin & Guthrie, *supra* note 47, at 121-24 (citing to studies). On the theoretical problem of agency costs, see Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305 (1976).

50. Notice that because lawsuits are inalienable, no opportunity for arbitrage—squeezing out irrational litigants—exists within the litigation market. See Michael Abramowicz, *On the Alienability of Legal Claims*, 114 YALE L.J. 697 (2005); see also Denis J. Hilton, *Psychology and the Financial Markets: Applications to Understanding and Remedying Irrational Decision-Making*, in 1 THE PSYCHOLOGY OF ECONOMIC DECISIONS 273, 274-75 (Isabelle Brocas & Juan D. Carrillo eds., 2003) (suggesting that markets containing irrational traders can still be efficient). *But cf.* J. Bradford De Long et al., *Noise Trader Risk in Financial Markets*, 98 J. POL. ECON. 703, 705 *passim* (1990) (suggesting that noise traders disrupt even financial markets that contain rational arbitrageurs).

human characteristics. The very fact that common law *varies* from jurisdiction to jurisdiction, confirming a theoretical prediction of cognitive theory,<sup>51</sup> appears to belie the efficiency hypothesis. Assuming local conditions do not dictate different efficient rules, a minimum of all but one of those variations must be inefficient. Similarly, within any given jurisdiction, the substance of the common law betrays manifold inconsistencies between structurally similar rules, as cognitive theory would again predict.<sup>52</sup> These rules cannot simultaneously be efficient. Still another cognitive phenomenon reflected in the common law is salience bias. “Salience biases refer to the fact that colorful, dynamic, or other distinctive stimuli disproportionately engage attention and accordingly disproportionately affect judgments.”<sup>53</sup> This bias produces a legal pathology that is the mirror image of structural inconsistency: When a new problem appears superficially similar to another one that has already been resolved by a vivid common law rule, judges sometimes replicate the vivid rule thoughtlessly, again producing suboptimal law.<sup>54</sup> In still other ways, the common law displays features that are telltale signs of underlying cognitive phenomena, diminishing the potential for efficiency.<sup>55</sup>

This is not to say that common law dynamics are devoid of any evolutionary component. In particular, the progressive development of *exceptions* to rules suggests that processes of trial and error do yield legal improvements. Hence, rules initially announced in overbroad terms become refined over time.<sup>56</sup> This process need not operate automatically, however; it is fully explicable as an epistemic exercise, whereby lawmakers perceive what appear to be doctrinal errors and strive, however imperfectly, to correct them.

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51. By hypothesis, these inconsistencies stem from “selective search” by lawmakers as a necessary aspect of attention rationing. Hirsch, *Jurisprudence*, *supra* note 4, at 1337-42.

52. This phenomenon also follows from selective search. *See id.* at 1338-39. For an extended discussion, see Hirsch, *Inconsistency*, *supra* note 4.

53. Shelley E. Taylor, *The Availability Bias in Social Perception and Interaction*, in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES 190, 192 (Daniel Kahneman et al. eds., 1982); *see also, e.g.*, SCOTT PLOUS, *THE PSYCHOLOGY OF JUDGMENT AND DECISION MAKING* 178-80 (1993).

54. One example was the historical extension of the common law Rule Against Perpetuities from the arena of bequests to persons, where it made sense in general terms of public policy, to the arena of bequests for purposes, where it made no sense at all. Evolutionary processes have not eroded this fallacious duality. For a discussion, see Adam J. Hirsch, *Bequests for Purposes: A Unified Theory*, 56 WASH. & LEE L. REV. 33, 84-87 (1999). For other illustrations of the same structural phenomenon, see, for example, Pamela Bucy, *Corporate Ethos: A Standard for Imposing Corporate Criminal Liability*, 75 MINN. L. REV. 1095, 1114 (1991); Tamar Frankel, *Fiduciary Law*, 71 CAL. L. REV. 795, 804-08 (1983); and Edward Rock & Michael Wachter, *Dangerous Liaisons: Corporate Law, Trust Law, and Interdoctrinal Legal Transplants*, 96 NW. U. L. REV. 651, 652 (2002).

55. I discuss manifestations of one of these—to wit, task-interference within lawmaking—in Hirsch, *Jurisprudence*, *supra* note 4, at 1342-58.

56. *Id.* at 1340-42.

And even if mechanistic processes of legal evolution were discovered to exist, we can identify one other human element in the story that should function to thwart them.<sup>57</sup> Whereas biological evolution takes place within what is, for the most part, a gradually changing, natural environment, legal evolution occurs within a rapidly changing cultural and technological environment.<sup>58</sup> A rule that is well-adapted to society one day may not be the next. Like the Red Queen, rules have to rush twice as fast just to keep up. In a mercurial world, any ineluctable tendencies toward efficiency must often prove insignificant because they will be overtaken by the race of events.<sup>59</sup>

When the natural environment undergoes rapid change, as occasionally happens, it can overwhelm the evolutionary process. The result is mass extinctions, which have occurred periodically in the history of life on earth.<sup>60</sup> When shifts in the social environment cause law to become recognized as ineffectual, the overarching, non-mechanistic aspects of the system (which are missing from the natural system) assert themselves unmistakably: Advertent lawmaking occurs.<sup>61</sup> We may observe that common law jurisprudence anticipates and allows for this very eventuality—hence the common law maxim, *cessante ratione legis, cessat ipsa lex*.<sup>62</sup> And, of course, legislators can also intercede as catalytic agents to update obsolescent common law. This was an element in the history of the fee tail, which at various times has been a creature of common and statutory law.<sup>63</sup> But advertent lawmaking also brings us back to the realm of human foibles and fallibilities.

Indeed, it bears noting that even this systemic safety net can fail. It can fail in the face of human neglect: The general field of future in-

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57. In some instances, movement toward legal efficiency is stymied by constitutional roadblocks. See *Blakely v. Washington*, 124 S. Ct. 2531, 2543 (2004) (“Ultimately, our decision cannot turn on whether or to what degree trial by jury impairs the efficiency or fairness of criminal justice.”). But the same is true of nature, where the adaptive trends of species can run up against limits imposed by the laws of chemistry and physics. RICHARD DAWKINS, *THE BLIND WATCHMAKER* 190-91 (1986).

58. One is tempted to observe that the rate of social change is accelerating in the present age, but that is something of a myth. See KARL R. POPPER, *THE POVERTY OF HISTORICISM* 160 (2d ed. 1960).

59. Cf. POSNER, *supra* note 6, § 21.6, at 574.

60. See generally MASS EXTINCTIONS: PROCESSES AND EVIDENCE (Stephen K. Donovan ed., 1989).

61. Compare Professor Epstein, who argues that departures from established precedent within the common law more typically trace to judicial ideology than to social change, which only occasionally affects the utility of rules. Richard A. Epstein, *The Static Conception of the Common Law*, 9 J. LEGAL STUD. 253, 253-73 (1980). From a structural perspective, however, this distinction is not all that significant: Obviously, no court establishes initially what it perceives to be a flawed rule. It is the dynamic ideological environment—which can be conceived as an aspect of the social environment—that alters perceptions and inspires advertent efforts to adapt the law to changing times.

62. *E.g.*, *In re Miller*, 584 S.E.2d 772, 790 (N.C. 2003).

63. Stake, *supra* note 1, at 415-19.

terests law, from which Professor Stake has drawn his principal illustration of legal change, gives every indication of having become stranded in the past, by and large.<sup>64</sup> Although law plainly has the capacity to adapt to the social environment, society just as plainly has the capacity, for extended periods, to tolerate antique and inefficient law.

And the safety net can also fail in the face of relentless change itself. The late Grant Gilmore, for example, famously confessed that the Uniform Commercial Code was already obsolescent by the time it was promulgated.<sup>65</sup> If even thoughtful lawmakers sometimes lose their race against time to maintain the law's currency, then how much less effective must be the gentler, thoughtless impulses for legal evolution operating in the background, especially when weakened by the presence of irrational litigants?

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The doubts and concerns expressed up to now have presupposed a common law system as it currently exists—with a fixed principle of precedent and a fixed, hierarchical organization of courts. But, as any legal historian knows, nothing about law (at least since biblical times) is written in stone. Like rules, jurisprudence and legal process also vary over time. And if the mechanisms of legal change are themselves changeable, then the extent of the common law's tendency toward efficiency may likewise prove temporally dynamic.

In recent articles, several commentators have underscored this point, claiming that the common law has been pushed in the direction of efficiency, and then in other directions, at different moments in its history.<sup>66</sup> According to one scholar, the common law has

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64. The titles alone speak volumes: W. BARTON LEACH, *PROPERTY LAW INDICTED! OR THE PEOPLE VS. BLACKSTONE, KENT, GRAY, AND STARE DECISIS (ACCESSORIES: PONTIUS PILATE AND THE LAWS OF THE MEDES AND THE PERSIANS)* (1967); William F. Fratcher, *Exorcise the Curse of Reversionary Possibilities*, 28 J. MO. B. 34 (1972); Wythe Holt, *The Testator Who Gave Away Less than All He or She Had: Perversions in the Law of Future Interests*, 32 ALA. L. REV. 69 (1980); Taylor Mattis & David Schellenberg, *The Doctrine of Worthier Title in Illinois: Burying the Dead*, 23 J. MARSHALL L. REV. 81 (1989); Ronald Maudsley, *Escaping the Tyranny of Common Law Estates*, 42 MO. L. REV. 355 (1977); Nicholas L. White, *Bringing Tennessee into the Twentieth Century Re Possibilities of Reverter, Powers of Termination and Executory Interests when Used as Land Control Devices*, 15 MEMPHIS ST. U. L. REV. 555 (1985); Robert R. Wright, *Medieval Law in the Age of Space: Some "Rules of Property" in Arkansas*, 22 ARK. L. REV. 248 (1968); Charles M. Agee, Jr., Note, *Has Tennessee Abolished Its Ancient Class Gift Doctrine or Only Modified It?*, 7 MEMPHIS ST. U. L. REV. 129 (1976).

65. Grant Gilmore, *The Good Faith Purchase Idea and the Uniform Commercial Code: Confessions of a Repentant Draftsman*, 15 GA. L. REV. 605, 627 (1981).

66. See Daniel Klerman, *Jurisdictional Competition and the Evolution of the Common Law: A Hypothesis*, 8 AUSTL. J. LEGAL HIST. 1 (2004); Todd J. Zywicki, *The Rise and Fall of Efficiency in the Common Law: A Supply-Side Analysis*, 97 NW. U. L. REV. 1551 (2003).

tended most strongly toward efficiency when and where it has featured (1) overlapping tribunals, (2) in competition with one another for business, where (3) parties commit to a tribunal before they know whether they will comprise plaintiffs or defendants.<sup>67</sup> Under these conditions, parties' choices among alternative venues provide the selective pressure (quite literally!) for provision of optimal rules.<sup>68</sup> Observe, however, the unspoken cognitive assumptions of this hypothesis: (1) most parties prefer, and hence select, rules that feature the quality of efficiency (as opposed to distributive fairness, or other qualities), (2) parties have the capacity to identify efficient rules, and (3) parties have the time and mental energy to go ahead and make the identification. We may call into question every one of these assumptions.

In the wake of *Erie*,<sup>69</sup> the opportunities for efficiency-generating forum shopping within the American legal system have ostensibly dwindled.<sup>70</sup> Nevertheless, there remains at least one useful testing ground for the hypothesis—to wit, corporate common law. In theory, competition for corporate charters should produce efficient rules (at least as regards disputes between corporations, putting aside the special problem of disputes between management—which selects the situs—and shareholders).<sup>71</sup> Here, indeed, there exist a large number of “overlapping” jurisdictions to choose from, and corporations select their litigation situs before disputes arise, hence behind a veil of ignorance. What is more, corporations have a strong incentive (stronger perhaps than among private parties<sup>72</sup>) to favor the jurisprudential ideal of wealth maximization. Yet, for all of that, at least some commentators have doubted whether corporate managers choose fora rationally. Professor John Coffee suggests that Delaware's success in attracting charters may in part have resulted from “herd” behavior:

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67. Zywicki, *supra* note 66, at 1581-1621.

68. *Id.*

69. *Erie R.R. Co. v. Tompkins*, 304 U.S. 64 (1938).

70. Zywicki, *supra* note 66, at 1621; *see also id.* at 1552.

71. State courts have no direct mercenary incentive to compete with each other, although the appointments process helps to create indirect incentives for judicial responsiveness. *See* ROBERTA ROMANO, *THE GENIUS OF AMERICAN CORPORATE LAW* 39-40 (1993) (focusing on Delaware). In other contexts, where mercenary incentives are nonexistent, modern versions of overlapping fora should not create tendencies toward efficiency, even assuming all parties are rational. Thus, the rise of institutionalized alternative dispute resolution has not triggered competition with courts to supply efficient legal process. On the contrary, “the judicial trend is to encourage more rather than less arbitration and in more diversified contexts,” precisely in order to achieve “docket reduction.” IAN MACNEIL, RICARD E. SPEIDEL & THOMAS J. STIPANOWICH, *FEDERAL ARBITRATION LAW* § 3.2.5, at 3:15 (1999).

72. For a recent inquiry into public attitudes, see Gregory Mitchell & Philip E. Tetlock, *An Empirical Inquiry into the Relation of Corrective Justice to Distributive Justice* (2004) (unpublished manuscript, on file with author).

Corporations may prefer to locate in a popular jurisdiction of incorporation for reasons that are simply based on its popularity, not the inherent superiority of its law. Such a “safe” decision protects the corporation’s advisers from criticism, pleases uninformed shareholders who assume it is correct, and produces no adverse reaction from a marketplace that cannot easily evaluate legal differences and so prefers the consensus choice.<sup>73</sup>

Similar sorts of information cascades, grounded in the cognitive costs of determining legal optimality, could likewise impede common law selective pressure in other situations and contexts.<sup>74</sup>

Even if there were some way around this problem, we must still contend with the cognitive bottleneck of jurisprudence itself. For, mechanistic processes aside, legal change remains advertent in the sense that it occurs within the confines of a system of legal process that is itself the product of human design, and that can be—and periodically is—redesigned. Hence, the efficiency of the common law depends ultimately upon human decisions. And, for all appearances, lawmakers’ larger operational decisions have been taken without a thought to their implications for the generation of legal efficiency over time;<sup>75</sup> that tendency, to the extent it has existed, has invariably comprised an epiphenomenon of other, more immediate concerns or perhaps chance events—this being just another reflection of the bounded rationality of the legal system’s human designers.

Still, could jurisprudence and legal process themselves respond, peradventure, to blind pressures for the provision of efficient law, thereby manifesting what we might dub meta-evolutionary tenden-

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73. John C. Coffee, Jr., *The Future as History: The Prospects for Global Convergence in Corporate Governance and Its Implications*, 93 NW. U. L. REV. 641, 703 (1999). For a related discussion, suggesting that “the market is not capable of assessing the efficiency of a legal regime,” see Lynn M. LoPucki & Sara D. Kalin, *The Failure of Public Company Bankruptcies in Delaware and New York: Empirical Evidence of a “Race to the Bottom,”* 54 VAND. L. REV. 231, 269 (2001).

74. As suggested by Coffee’s brief critique, herding into a legal forum may be prompted by incentives other than attempting to free ride on the cognitive expenses borne by others. Such herding also insulates the advising attorney from criticism. “[I]t is better for reputation to fail conventionally than to succeed unconventionally.” JOHN M. KEYNES, *THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY* 158 (1936), quoted in Marcel Kahan & Michael Klausner, *Path Dependence in Corporate Contracting: Increasing Returns, Herd Behavior and Cognitive Biases*, 74 WASH. U. L.Q. 347, 355-56 (1996). Professors Kahan and Klausner assume the phenomenon represents an agency cost, Kahan & Klausner, *supra*, at 355, but individual parties deciding for themselves might also fear ridicule following an unconventional failure of judgment. See J. RICHARD EISER, *SOCIAL PSYCHOLOGY: ATTITUDES, COGNITION AND SOCIAL BEHAVIOR* 36-37 (1986). Finally, herding may also reflect a “network externality”: The choice of one litigation situs over another may be self-reinforcing, as that situs builds up a larger store of precedents and thereby increases legal certainty. See Michael Klausner, *Corporations, Corporate Law, and Networks of Contracts*, 81 VA. L. REV. 757, 841-47 (1995).

75. See Klerman, *supra* note 66, at 14; Zywicki, *supra* note 66, at 1621.

cies?<sup>76</sup> Professor Stake raises this possibility at the outset of his article, when he suggests provocatively that more successful legal systems are apt to supplant less successful ones in the competition between nation states, or in revolutionary struggles, leading in the direction of systems with the capacity to furnish society with optimal law.<sup>77</sup>

Alas, this notion appears fanciful. Law adds an ingredient to the overall strength of a state, to be sure, but all else is never equal. When we come to “muscular economics,”<sup>78</sup> the extent of resources becomes at least as important as the efficiency of their deployment, and other factors, such as manpower, the presence of a motivating ideology, charismatic leadership, and a military *esprit de corps* come into play. All in all, the importance of internal law in sustaining a regime is hardly manifest.

Meta-evolution, then, offers no escape from the bounded rationality of common law. Irrationality will be bred out of our rules, and out of our mechanisms for producing rules, only when it is bred out of us.

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76. Sir Henry Maine may have anticipated the idea when he remarked cryptically that “even jurisprudence itself cannot escape from the great law of evolution.” *Quoted in* PETER STEIN, *LEGAL EVOLUTION: THE STORY OF AN IDEA* 100 (1980).

77. Stake, *supra* note 1, at 403. Consider also Professor Rubin’s suggestion that “the reduced power of the state in common law systems” makes “more likely” the development of competitive, overlapping jurisdictions. Rubin, *supra* note 12 (appearing in both versions of the essay). Although states with common law have featured overlapping jurisdictions at various times, there is no manifest historical trend toward their precipitation within those states.

78. Professor Hirshleifer’s felicitous phrase. Jack Hirshleifer, *The Dark Side of the Force*, 32 *ECON. INQUIRY* 1, 2 (1994).

