

1993

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### Recommended Citation

Robert E. Scott, *Chaos Theory and the Justice Paradox*, 35 WM. & MARY L. REV. 329 (1993).

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# CHAOS THEORY AND THE JUSTICE PARADOX

ROBERT E. SCOTT\*

“[T]he laws have mistakes, and you can’t go writing up a law for everything that you can imagine.”<sup>1</sup>

“When you reach an equilibrium in biology you’re dead.”<sup>2</sup>

As we approach the Twenty-First Century, the signs of social disarray are everywhere. Social critics observe the breakdown of core structures—the nuclear family, schools, neighborhoods, and political groups. As these traditional social institutions have disintegrated, the law has expanded to fill the void. There are more laws, more lawyers, and more use of legal mechanisms to accomplish social goals than at any other time in history. The custodians and interpreters of the American legal system have become, whether they like it or not, the center of the universe.

Lawyers and legal academics are deeply conflicted about this newfound prominence. The legal profession is searching, even struggling, to define its role in a changing society. Much of this angst comes from a feeling that the legal community hasn’t made much progress in resolving what I will term the “Justice Paradox.” To understand the paradox, one must focus on the purposes of legal rules. Legal rules that determine liability and/or impose sanctions have both a distributive function and a behavior modification function. That is, the rules redistribute wealth or entitlements between the immediate parties to any particular dispute, and they also influence the behavior of future parties who may find them-

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I wish to thank Saul Levmore, Glenn Reynolds, Elizabeth Scott and Bill Stuntz for their helpful comments. Evan Schultz and Amy Bokinsky provided excellent research assistance.

A version of this Essay was delivered as the George Wythe Lecture on April 5, 1993, at the Marshall-Wythe School of Law on the occasion of the celebration of the Tercentenary of the College of William and Mary.

1. CAROL GILLIGAN, *IN A DIFFERENT VOICE* 26 (1982) (quoting Jake, an eleven year old boy).

2. JAMES GLEICK, *CHAOS: MAKING A NEW SCIENCE* 298 (1987) (quoting Arnold Mandell).

selves similarly situated. The justice of all legal rules must therefore be evaluated from two distinct perspectives: (1) Does the law accomplish justice between the parties to any particular dispute? We can call this "Present Justice"; and (2) Does the law appropriately regulate the conduct of other parties likely to have similar disputes in the future, making it less likely that similar misfortune will befall others who can learn from the experience of these litigants? We might call this "Future Justice."

The paradox arises from two propositions. First, both criteria must be satisfied in order to achieve a just outcome. Second, these two criteria of justice are usually intractably opposed. Simply put, you can't have it both ways. Thus, we aspire to a just society that satisfies the essential conditions of both Present and Future Justice, and yet we live in a world that often forces us to choose between one or the other.

Literature vividly illustrates the dilemma. Victor Hugo, for instance, saw it clearly in *Les Misérables*: The sympathetic Jean Valjean illustrates that justice requires a context-specific recognition of the needs of the disadvantaged, and of how their circumstances might influence their ability or duty to obey the rules. However, Inspector Javert's obsession derives from the belief that justice also requires rules to control human behavior and to minimize the acts of theft, carelessness, or willful disregard of others that undermine social welfare.<sup>3</sup>

The Justice Paradox generates a recycling process familiar to any student of legal history. Each generation of legal theorists offers a different metatheory to explain or understand legal phenomena, rejecting the perspectives of the previous generation in the hope of more successfully solving the paradox. The recycling comes about because the available "solutions" are actually quite limited. Modern jurisprudence—starting with the development of the common law, through the rise of Legal Formalism, and beyond to Legal Realism, Law and Economics, and Critical Legal Theory, has yielded only two basic choices. Option One is to focus principally

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3. Elie Wiesel provides a different manifestation of the paradox in his short but powerful 1961 novel, *Dawn*, in which a Jewish freedom fighter in pre-partition Palestine confronts the dilemma of whether to execute an innocent British officer as a means of sending a signal to the occupying forces. Literature that deals with the Justice Paradox, of course, is not limited to these two examples.

or exclusively on one pole of the justice continuum (presumably the one that the theory in question best explains), and by using some legal legerdemain, finesse the other side of the justice equation by ignoring it, cabining it, or denying that it exists. Option Two is to be honest, confront the paradox, and then declare, in effect, that all is lost. Law as a neutral construct that can mediate human experience in a just way is an impossibility. Adherents to this second option then tend to focus on "law as politics," unmediated by conceptions of a just social order.

My purpose in this Essay is to advance the claim that there is a third option—one that is suggested by the development in science known as Chaos Theory. Chaos Theory concerns the phenomenon of "orderly disorder created by simple processes."<sup>4</sup> It is the notion that the laws of the physical world cannot predict what is going to happen in the future. This is not because the laws are invalid, but because even when we understand interactions very well, and even when the applicable laws are quite accurate and clear, results in specific cases still can be impossible to predict—even though recurring patterns are discernable and remarkably durable. In sum, there is chaos in order, and there is order in chaos.<sup>5</sup>

I wish to use Chaos Theory as a metaphor or heuristic device for how we should approach the Justice Paradox. In doing so, I suggest that the third option is to be honest, confront the paradox, and then step back and declare, "This is good."

## I. THE JUSTICE PARADOX

A closer look at the Justice Paradox reveals that its root causes lie deep in the nature of the legal process. A particularly vivid example is the case of *Vokes v. Arthur Murray, Inc.*,<sup>6</sup> familiar to most students of contract law. In *Vokes*, the Court considered whether or not a contract for the sale of \$31,000 worth of dance lessons (the equivalent of 2,300 hours) to a fifty-one year old widow constituted fraud when the dance studio knew that Mrs.

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4. GLEICK, *supra* note 2, at 266.

5. For another discussion of how Chaos Theory can be helpful to lawyers, particularly those dealing with constitutional law, see Glenn H. Reynolds, *Chaos and the Court*, 91 COLUM. L. REV. 110 (1991).

6. 212 So. 2d 906 (1968).

Vokes had absolutely no future as a dancer.<sup>7</sup> Professor Robert Gordon has used the *Vokes* case as an example of how Critical Legal Theory can deconstruct legal doctrine and to demonstrate the malleability of both language and law.<sup>8</sup> On the one hand, he writes, the decision by the Florida court not to enforce the contract can be seen as an easily justified exception to the general rule that the courts will enforce private contractual obligations which are freely and voluntarily assumed by informed and competent parties. Yet, at the same time, Gordon demonstrates that Judge Pierce's opinion, with its surplus of details, appeals to what might be called an "underground jurisprudence of equity."<sup>9</sup> Finally, Gordon suggests that the "regime of exceptions contradict[s] . . . the regime of rules."<sup>10</sup> There are no "normal cases" where law "merely facilitat[es] private voluntary choices."<sup>11</sup> Rather, all of contract law is an exception to the premise of freedom of contract.

One could argue, however, that the illustrative value of *Vokes* goes beyond its heuristic value in illuminating the techniques of legal deconstruction. Specifically, the tension embodied in *Vokes* is the same tension that drives the Justice Paradox: Do we satisfy the demands of Present Justice or those of Future Justice? If the principal responsibility of adjudication is to assign rights as between the parties to the present dispute, the case seems easily reconcilable with most contemporary theories of distributional and corrective justice. Mrs. Vokes is a sympathetic party; equity firmly supports a decision to deny enforcement of a contractual obligation that knowingly exploits her vulnerabilities. This is especially the case here, where we have confidence that, despite her apparent assent, the bargain is not in her best interests. She is, we are told, an absolutely miserable dancer and will always remain so.<sup>12</sup>

Consider, however, the conditions for satisfying Future Justice. Here the question is: What outcome in this case will most justly regulate or facilitate the affairs of future parties similarly situated?

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7. *Id.* at 907.

8. Robert W. Gordon, *Unfreezing Legal Reality: Critical Approaches to Law*, 15 FLA. ST. U. L. REV. 195, 203 (1987).

9. *Id.* at 206.

10. *Id.* at 212.

11. *Id.* at 213.

12. *Vokes*, 212 So. 2d at 908.

In terms of future consequences, the decision not to enforce may be problematic. One effect of the ruling in favor of Mrs. Vokes would be to discourage sellers of services, such as the dance studio, from entering into contractual agreements with parties who might resemble Mrs. Vokes superficially. This implies that older women, or widows, or poor dancers, may be denied the privilege of entering into contracts that promote their welfare and happiness. The principal justification for enforcing executory contracts is to allow people to make plans—to choose voluntarily a course of action that best maximizes their happiness and then to rely on the fulfillment of those expectations. According to this rationale, it is unjust to deny the right to make binding choices to people who declare themselves—as Mrs. Vokes did—free and willing to decide how to order their lives.

The future injustice visited by the *Vokes* decision will be magnified by the perversity of the effects of such a case. Not everyone will be denied the right to enter into long-term service contracts. Only those parties similarly situated whose characteristics—age, gender, ethnicity, psychological predispositions—resemble those ascribed to Mrs. Vokes are likely to be singled out as unworthy candidates for executory contracts. But what theory of justice denies to individuals a basic right enjoyed by others, essential to the functioning of any society, merely because they share certain arbitrary characteristics with someone else?<sup>13</sup> A rule enforcing executory contracts, freely and voluntarily entered into by competent parties even when one party has come to regret the bargain, is a rule that satisfies the conditions of Future Justice. But, as the *Vokes* case vividly demonstrates, this rule must be ignored in order to satisfy the conditions of Present Justice.

Much of the history of Anglo-American law and of contemporary jurisprudence can be understood as a struggle to reconcile this fundamental tension.<sup>14</sup> But because the human spirit strives to reach

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13. Or, as Professor Arthur Leff concluded a similar discussion, "What have you got against widows and orphans? . . . Choosing to favor her is not cost free, *even to others like her.*" Arthur A. Leff, *Economic Analysis of Law: Some Realism About Nominalism*, 60 VA. L. REV. 451, 461 (1974) (reviewing RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* (1973)).

14. See, e.g., BENJAMIN CARDOZO, *THE NATURE OF THE JUDICIAL PROCESS* 143 (1921) ("No doubt the ideal system, if it were attainable, would be a code at once so flexible and so minute, as to supply in advance for every conceivable situation the just and fitting rule.").

equilibrium, to resolve paradox, we must review carefully that history in order to demonstrate that the solution to the Justice Paradox does not in fact lie just around the corner.

## II. THE RECYCLING OF LEGAL THOUGHT

The most powerful and startling effect of the Justice Paradox is that it produces a recycling of law and legal thought.<sup>15</sup> This point can be demonstrated quite clearly by a brief survey of the intellectual history of contemporary legal thought, beginning with the rise of the common law. At its core, the common law seemed to offer a brilliant solution to the Justice Paradox. Rather than a system of abstract rules that must both guide behavior and resolve specific cases (such as the great civil codes of Rome and the Continental countries), the common law made no rules without a specific case.<sup>16</sup> And, at least in its earliest iterations, there was no paradox. Each case was decided consistently with the conditions of Present Justice; and since each case only applied to future cases just like it, each case also satisfied the conditions of Future Justice as well.

But embedded in the common law method lay the seeds of paradox. As more cases were decided and similarities and patterns emerged, the need for future parties to predicate their actions on correct, i.e. legal, behavior led to the publication and dissemination of the opinions of the common law judges.<sup>17</sup> With the publication of opinions came the interpreters, the lawyers, who upon reading the opinions were able to discern patterns—or rules of law—that were consistent with the prior decisions.<sup>18</sup> In turn, these rules, once revealed, were restated in later cases, constraining the judges' ability to decide cases solely on the criteria of Present Justice.<sup>19</sup> In

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15. Subsequently in this Essay, I will claim that the recycling phenomenon is actually more sophisticated than a mere duplication of efforts by each succeeding generation. See *infra* part III.

16. MAX RADIN, *HANDBOOK OF ANGLO-AMERICAN LEGAL HISTORY* 93-95, 343-47 (1936).

17. Even before the advent of reported decisions, precedent in the guise of custom played a predominant role in dispute adjudication. Later, by the last quarter of the 13th century at the latest, yearbooks of reported cases began to circulate. *Id.* at 312, 345-46.

18. A trained bar organized into a guild around the end of the 13th century. *Id.* at 94.

19. While judges often cited precedent throughout the Middle Ages, they usually considered it to be persuasive rather than binding. Only by the end of the 1600's did precedent begin to constrain judicial decisions considerably. *Id.* at 350-53.

short, the evolutionary process of the common law caused the present to become the future, and vice versa.<sup>20</sup>

This dilemma, the fact that the common law essentially was chasing its own tail, led to a clever, albeit temporary solution: the formal separation of courts of law and equity.<sup>21</sup> If the demands of justice could not be satisfied fully by a single court, then quite obviously what was required was the creation of two courts: a court of equity for Present Justice and a court of law for Future Justice. The separation of law and equity originally occurred in England as early as the fourteenth century<sup>22</sup> (revealing how quickly the paradox emerged from the common law process).

The initial intuitions about the preservation of separate systems of justice were good. The common law courts mostly retained their subject matter jurisdiction, but passed on the more difficult cases, or the cases that could not be addressed within the common law's system of inflexible rules, to the courts of equity.<sup>23</sup> Equity developed simultaneously in the Court of Chancery, essentially for civil cases, and in the Star Chamber, mainly for criminal cases.<sup>24</sup> Both courts of equity employed rules of procedure which sidestepped the encrustation that had built up in the common law courts,<sup>25</sup> thereby allowing them to decide the cases with an eye towards enacting justice between the immediate parties.<sup>26</sup> While equity courts heard cases publicly and allowed attorneys to represent the parties

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20. RALPH A. NEWMAN, *EQUITY AND LAW: A COMPARATIVE STUDY* 22-23, 25 (1961).

21. *Id.* at 22-23, 23 n.10 ("From Richard [II in the late 14th century] to Elizabeth, the rise of the court of chancery preserved [our legal system] from [medieval] dry rot.") (quoting Roscoe Pound, *Do We Need a Philosophy of Law?*, 5 COLUM. L. REV. 339, 350 (1905)).

22. NEWMAN, *supra* note 20, at 12, 22.

23. EDGAR HAMMOND, *A CONCISE LEGAL HISTORY* 45 (1921); 5 W.S. HOLDSWORTH, *A HISTORY OF ENGLISH LAW* 155-56 (3d ed. 1945); GEORGE W. KEETON & L.A. SHERIDAN, *EQUITY* 32 (2d ed. 1976).

24. HAMMOND, *supra* note 23, at 45; EDWARD JENKS, *A SHORT HISTORY OF ENGLISH LAW* 167-68 (5th ed. 1938).

25. JENKS, *supra* note 24, at 167-68; KEETON & SHERIDAN, *supra* note 23, at 32-33.

26. W.S. HOLDSWORTH, *SOURCES AND LITERATURE OF ENGLISH LAW* 179 (1925).



during the hearings,<sup>27</sup> the Star Chamber earned its "black box" reputation by not pronouncing reasons for its decisions.<sup>28</sup>

Though reports of cases decided in the equity courts freely circulated, no binding set of precedent emerged at first.<sup>29</sup> But, unhappily, as the Chancery stopped merely supplementing the common law and instead assumed a central role in the English legal system,<sup>30</sup> the court succumbed to an established set of equitable rules.<sup>31</sup> Once the genie was out of the bottle, it was just a matter of time. For several hundred years, the system was maintained by pure formality. But ultimately, by the end of the eighteenth century certainly,<sup>32</sup> no serious student of the common law would doubt that there were rules of law in the courts of equity, and equitable outcomes in the courts of law.<sup>33</sup>

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27. HOLDSWORTH, *supra* note 26, at 168; Maitland, *Equity* 6-11, reprinted in READINGS ON THE HISTORY AND SYSTEM OF THE COMMON LAW 172, 174, 176 (Roscoe Pound ed., 2d ed. 1913) [hereinafter HISTORY AND SYSTEM].

28. In addition, the Star Chamber did not inform defendants of the charges levied against them until they arrived in court, and it deprived defendants of the assistance of counsel during interrogations. HOLDSWORTH, *supra* note 26, at 173; 1 HOLDSWORTH, *supra* note 23, at 407; JENKS, *supra* note 24, at 168. The myth of the Star Chamber as a secret institution originated only in the 18th century. RADIN, *supra* note 16, at 71.

29. HOLDSWORTH, *supra* note 26, at 167; Spence, *Equitable Jurisdiction of the Court of Chancery*, I, 413, reprinted in HISTORY AND SYSTEM, *supra* note 27, at 170-72.

30. James I, in the beginning of the 1600's, settled a dispute between the courts of law and equity by declaring the supremacy of the courts of equity. HOLDSWORTH, *supra* note 26, at 179; JENKS, *supra* note 24, at 167, 212.

31. HOLDSWORTH, *supra* note 26, at 179-80; Maitland, *supra* note 27, at 174 (stating that case reports from the Court of Chancery date back to 1557, and that an established body of Equity existed by the 1550's); Spence, *supra* note 29, at 171-72 (stating that by the reign of Elizabeth I, courts of Equity often explicitly referred to precedent as grounds for their decision). Parliament abolished the Star Chamber in 1641, and so it did not have the chance to develop as rigid a set of rules as it might have. HOLDSWORTH, *supra* note 26, at 166.

32. C.C. LANGDELL, A BRIEF SURVEY OF EQUITY JURISDICTION 1, 5 (2d ed. 1908) (originally published under same title in 1 HARV. L. REV. 55 (1887)); NEWMAN, *supra* note 20, at 50-51.

33. Roscoe Pound, *The Decadence of Equity*, 5 COLUM. L. REV. 20, 27 (1905) ("[E]quity had developed refinements and technical doctrines and was operating at some points no less mechanically than the law."). Indeed, by the 19th century, an established body of equity seemed desirable, as shown in *Gee v. Pritchard*, in Chancery, 1818 (2 Swanst. 402), reprinted in HISTORY AND SYSTEM, *supra* note 27, at 176-77 ("Nothing would inflict on me greater pain, in quitting this place, than the recollection that I had done anything to justify the reproach that the equity of this court varies like the Chancellor's foot."). The common law absorbed the criminal jurisdiction of the Star Chamber after its abolition, and retained many of its innovations, both substantive and procedural, thereby perpetuating equity in the law. HOLDSWORTH, *supra* note 26, at 171-75. Blackstone also stated that law and equity

When the paradox became too obvious to ignore, the first contemporary jurisprudence emerged to combat it: Legal Formalism. The Legal Formalists—whose influence extended into the end of the first quarter of the twentieth century—viewed the rule of law as “a structure of positivised, objective, formally defined rights.”<sup>34</sup> They focused their lens firmly on the rules of law—on the criteria of Future Justice. The prevailing philosophy of the formalist movement was positivism.<sup>35</sup> “The law itself was a deductive system, with unquestionable premises leading to ineluctable conclusions.”<sup>36</sup> References in the classic treatises of the times were to “rules . . . so fundamental that if a legal system did not have them there would be no point in having any other rules at all.”<sup>37</sup>

But, one might ask, whatever happened to the demands of equity and the criteria of Present Justice? The formalists dealt with the Justice Paradox the old fashioned way—they ignored it. The system of rules that emerged left no room for specific context, for outcomes that failed to jibe with the rules or recognized exceptions to the rules (which were, of course, simply more rules). How could this be done? The answer lay in the creative use of legal fictions. In other words, they lied a lot. This was the beginning of the end for formalism. The formalist creation of fictions and artificial categories ultimately led to the rejection of formalism and the emergence of Legal Realism.<sup>38</sup>

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essentially had merged by his time. Blackstone, *Commentaries*, III, 434, 436, reprinted in HISTORY AND SYSTEM, *supra* note 27, at 177.

34. Elizabeth Mensch, *The History of Mainstream Legal Thought*, reprinted in THE POLITICS OF LAW: A PROGRESSIVE CRITIQUE 18, 23 (David Kairys ed., 1982).

35. *Id.* at 18; Steven M. Quevedo, Note, *Formalist and Instrumentalist Legal Reasoning and Legal Theory*, 73 CAL. L. REV. 119, 121 (1985).

36. Leff, *supra* note 13, at 453.

37. Ralph A. Newman, *Introduction to EQUITY IN THE WORLD'S LEGAL SYSTEMS* 26 (Ralph A. Newman ed., 1973) (quoting H.L.A. Hart, *Positivism and the Separation of Law and Morals*, 71 HARV. L. REV. 593, 623 (1958)).

38. Permeating the literature are two examples of the cynicism that developed from the all-too-obvious manipulations employed by the formalists. For forthright example, see Joseph C. Hutcheson, Jr., *The Judgment Intuitive: The Function of the "Hunch" in Judicial Decision*, 14 CORNELL L.Q. 274 (1929). Judge Hutcheson explains his method of deciding cases as follows: “But I, proceeding according to custom, got my hunch, found invention and infringement, and by the practice of logomachy so bewordled my opinion in support of my hunch that . . . the cause was ended.” *Id.* at 280. For a more biting piece, see Felix S. Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV. 809 (1935). Cohen quotes an exchange from Lewis Carroll's *Through the Looking Glass* where,

The best marker of this transition occurred during the debates over the adoption of the first Restatement of Contracts in 1931. The American Law Institute stood poised to adopt Restatement section 75 (now section 71), the classic requirement of consideration for the enforcement of contracts. The major proponent of section 75 was Samuel Williston, the last of the great formalist treatise writers. But into the room burst Arthur Corbin, a young radical from, of all places, Yale Law School. Armed with a flair for the dramatic, Corbin wheeled into the room on carts, volume after volume of cases in which courts had enforced contracts even though the classical requirements of bargained-for consideration were not satisfied. The Restaters were nonplussed to say the least. Out of that exchange came Section 90, the doctrine of promissory estoppel, and the rest, as they say, is history.<sup>39</sup>

The Legal Realists based their philosophy in part on their resistance to formalist principles, and in part on their desire to reject the deductive method and instead search out "rules" that existed in the real world of every day transactions.<sup>40</sup> The realists asserted that judges were not ciphers applying given first principles,<sup>41</sup> and that legal doctrine did not have any neutral or objective meaning for them.<sup>42</sup> Rather, doctrine was merely a language and, like all language, infinitely elastic.<sup>43</sup> The realists taught us that judges have power and discretion and that they are motivated by context, by external considerations of policy—in short by the demands of Present Justice.<sup>44</sup> Thus emerged the famous realist dictum that the

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in response to Alice's refusal to believe "impossible things," the Queen retorts, "I dare say you haven't had much practice." *Id.* at 811 n.7. It is interesting to note, however, that two of the cases which Cohen uses as prime exhibits of the ludicrous nature of legal fictions were decided by Justices Cardozo and Brandeis, hardly the era's strictest formalists! *Id.* at 811.

39. GRANT GILMORE, *THE DEATH OF CONTRACT* 62-64 (1974) (excluding, however, mention of the actual carts).

40. Gary Peller, *The Metaphysics of American Law*, 73 CAL. L. REV. 1152, 1224-25 (1985).

41. *Id.* at 1221, 1222.

42. *Id.* at 1223, 1225; EDWARD A. PURCELL, JR., *THE CRISIS OF DEMOCRATIC THEORY* 90 (1973); see also Mensch, *supra* note 34, at 22.

43. Mensch, *supra* note 34, at 22; G. Edward White, *From Sociological Jurisprudence to Realism*, 58 VA. L. REV. 999, 1016 (1972).

44. THEODORE M. BENDITT, *LAW AS RULE AND PRINCIPLE* 2-4 (1978); Leff, *supra* note 13, at 453.

legal analyst should look not just at what judges say but at what they do—at the results and outcomes of legal decisions.<sup>45</sup>

Although the fact is not widely recognized, Legal Realism divided into two starkly contrasting theories. The early period of realism was marked by a distinctly nihilistic or anarchic bent, typified by scholars who sought to debunk formalism and thereby expose the power relationships underlying all legal institutions.<sup>46</sup> Robert Hale, for example, argued that law drew its justification not from the freedom (especially of contract) so important to the *laissez-faire* ideology of the age, but from raw coercive power.<sup>47</sup> For him, this true source of the force that the legal system wields as the keeper of social order must be recognized for law to become coherent.<sup>48</sup> By thus exposing the Justice Paradox, and claiming that all law reduces to power, this brand of realism sought to wean people away from the hope that the tensions between general rules of behavior and the equities of specific contexts could ever be resolved. In this view, a just society could not be created merely by altering the intellectual justification for legal institutions, but only by altering the power relationships and the social structure itself.<sup>49</sup>

For various reasons, most acutely the rise of Nazism,<sup>50</sup> this early and critical Legal Realism was replaced by a more reconstructive—and thus perhaps more acceptable—brand. Giving way to this less radical strain of realism, the nihilist perspective disappeared from the scene for some time.<sup>51</sup> We should not neglect,

45. K.N. LLEWELLYN, *THE BRAMBLE BUSH: ON OUR LAW AND ITS STUDY* 12-14 (1960).

46. Peller, *supra* note 40, at 1221, 1222-24.

47. See, e.g., Robert L. Hale, *Force and the State: A Comparison of "Political" and "Economic" Compulsion*, 35 COLUM. L. REV. 149 (1935); Robert Hale, *Coercion and Distribution in a Supposedly Non-Coercive State*, 38 POL. SCI. Q. 470 (1923).

48. Mensch, *supra* note 34, at 23; Peller, *supra* note 40, at 1232, 1236-37.

49. Peller, *supra* note 40, at 1223.

50. LAURA KALMAN, *LEGAL REALISM AT YALE, 1927-1960*, at 121, 267 n.101 (1986) ("[The Realists] had undermined the concept of a rational moral standard. Their ethical relativism seemed to mean that no Nazi barbarity could be justly branded as evil, while their identification of law with the actions of government officials gave even the most offensive Nazi edict the sanction of true law.") (quoting Edward Purcell, Jr., *American Jurisprudence Between the Wars: Legal Realism and the Crisis of Democratic Theory*, 75 AM. HIST. REV. 424, 441 (1969-70)); PURCELL, *supra* note 42, at 179-184; Purcell, *supra*, at 438; White, *supra* note 43, at 1026.

51. Llewellyn wrote in 1930 that "the people who have the doing in charge, whether they be judges or sheriffs or clerks or jailers or lawyers, are officials of the law. *What these officials do about disputes is, to my mind, the law itself.*" LLEWELLYN, *supra* note 45, at 12

however, the significance of the early period, because the current Critical Legal Studies movement owes much of its intellectual energy to it.<sup>52</sup>

Legal Realism quickly developed a more constructive and positive approach to the search for just legal institutions; an approach typified by a turn to the social sciences.<sup>53</sup> This time the message was distinctly more cheerful, and might be read as saying, "All is not lost. We merely need a new conception of law in order to harmonize the tensions and solve the Justice Paradox." However, unlike the earlier realists, the new reconstructive strain had faith that a meaningful conception of justice could be discovered by replacing the formalist focus on legal doctrine and formal rules of law with a new science; the science of policy.<sup>54</sup> This emphasis on policy took various forms. In public law it marked the rise of process theory and the dominant influence of Henry Hart and Albert Sacks, Herbert Wechsler, and others. Process theorists noted that while legal outcomes were influenced by the tensions between the competing criteria of justice, nevertheless law did have a neutral and determinate function in providing an appropriate process for the resolution of these competing goals.<sup>55</sup> The relevant questions were not justice now or justice later, but rather, who decides and how? Important differences were thus noted between the functions of the democratically elected legislatures and the anti-democratic judiciary.<sup>56</sup>

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(emphasis added). In his 1960 edition of *The Bramble Bush*, Llewellyn felt the need for "correcting an error" to explain that, "[t]hey are, however, unhappy words when not more fully developed, and they are plainly at best a very partial statement of the whole truth." *Id.* at 8-9. For a fuller explanation of Llewellyn's correction, see *id.* at 8-10, 12 n.\*.

52. Peller, *supra* note 40, at 1220; Note, 'Round and 'Round the Bramble Bush: From Legal Realism to Critical Legal Scholarship, 95 HARV. L. REV. 1669, 1676 (1982).

53. PURCELL, *supra* note 42, at 78, 85-86, 87; Richard Danzig, *A Comment on the Jurisprudence of the Uniform Commercial Code*, 97, 101, reprinted in STANFORD LEGAL ESSAYS (John H. Merryman ed., 1975); Peller, *supra* note 40, at 1224-26, 1240-45; White, *supra* note 43, at 1014-17.

54. Mensch, *supra* note 34, at 24.

55. *Id.* at 24-25; see also HENRY M. HART & ALBERT M. SACKS, *THE LEGAL PROCESS: BASIC PROBLEMS IN THE MAKING AND APPLICATION OF LAW* (tent. ed. 1958).

56. Danzig, *supra* note 53, at 100, 106; Mensch, *supra* note 34, at 29-31; see also Herbert Wechsler, *Toward Neutral Principles of Constitutional Law*, 73 HARV. L. REV. 1 (1959).

In private law, this reconstructive urge found its sustenance in the social sciences and a return to empiricism.<sup>57</sup> Legal theorists began to search for the appropriate governing policies in such diverse fields as torts, contracts, and commercial law by employing the emerging techniques of social science.<sup>58</sup> The intellectual leader of this movement was Karl Llewellyn, the principal architect of the Uniform Commercial Code.<sup>59</sup> Llewellyn believed that law, i.e., justice, was immanent.<sup>60</sup> He saw it as the crystallization of slowly evolving social mores. Thus, a just law was inherent in the patterns of relationships that one could observe and record in the commercial world.<sup>61</sup> From this perspective, the role of courts was no longer deductive, but inductive: to observe and record what was already there. The model for the legal analyst in Llewellyn's mind was the prospector. The seeker of justice was urged to pack his burro, take up his pick, traverse the legal terrain, and find the harmonizing principles for justly resolving commercial disputes.<sup>62</sup>

Reflect for a moment on the parallels between Llewellyn's intuition and that of the early common law courts. Both begin with the specific context, decide each case according to the criteria of Present Justice, and use the resulting rule as a just guide for resolving future transactions. Recall that the early common law focus on context and just resolution of the present controversy was replaced by the formalist emphasis on rules. This led, first, to the early realist rejection of the very idea of rules as incoherent, and then to the later realist search for the abstract through the tangible. Thus, the realists ultimately urged nothing more radical than a return to the methods of the early common law courts. We had simply come full circle.

With that perspective, one could easily predict what would happen next. Throughout the 1950's and 1960's, a generation of legal

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57. LLEWELLYN, *supra* note 45, at 24; PURCELL, *supra* note 42, at 85-86; Mensch, *supra* note 34, at 28-29; Peller, *supra* note 40, at 1225, 1243; Quevedo, *supra* note 35, at 122.

58. White, *supra* note 43, at 1017.

59. Mensch, *supra* note 34, at 28.

60. LLEWELLYN, *supra* note 45, at 23-25; Danzig, *supra* note 53, at 101 (citing KARL N. LLEWELLYN, *THE COMMON LAW TRADITION* (1960)).

61. Mensch, *supra* note 34, at 28.

62. Danzig, *supra* note 53, at 97, 101, 102 (citing LLEWELLYN, *COMMON LAW TRADITION*, *supra* note 60, at 122).

scholars, following Llewellyn's directive, searched the social environment in vain for a normative theory of law. One dry hole upon another ultimately led most prospectors to conclude that there was no theory of law "out there." Custom and practice does not reveal the way in which the world should be organized; it merely reveals patterns of behavior. Even if one were to labor faithfully as Llewellyn directed, one could not solve the tension between law and equity, between general rules and specific context. The real world reflects its own tension between what "is" and what "ought to be." Essentially, the later realists were guilty of the naturalistic fallacy;<sup>63</sup> of trying to derive the "ought" from the "is."<sup>64</sup> Though Llewellyn openly advocated this "temporary divorce of Is and Ought for purposes of study,"<sup>65</sup> not surprisingly, he never managed to reconcile them.<sup>66</sup> And, even more disappointingly, instead of uncovering metaprinciples from which to derive just laws, Llewellyn's methodology instead led to the opposite pole of subjectivity, encouraging a "projection of a judge's values onto the scene before him, and then a 'discovery' of them as though they had existed in an objectively determinable way."<sup>67</sup>

And so, the 1960's led to another turning point. The realist search for jurisprudence in context had led to a natural reliance on sociology and anthropology, social sciences that focused on rich detail and nuance. But the details and the context proved daunting. There were no criteria for deciding which facts were relevant and which were not.<sup>68</sup> To the rescue came economics.<sup>69</sup> The economic critique was blunt. The economic analyst said, in effect, "You can't simply go looking for just policy in specific contexts willy nilly—you need a map." And the economic analysts had a map; a model of those key elements of behavior that would permit the careful observer to separate the wheat from the chaff. The Law

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63. See G.E. MOORE, *PRINCIPIA ETHICA* 10-14 (1971 ed.).

64. ALAN SCHWARTZ & ROBERT E. SCOTT, *SALES LAW AND THE CONTRACTING PROCESS* 18 (2d ed. 1991); Danzig, *supra* note 53, at 105.

65. White, *supra* note 43, at 1023.

66. Danzig, *supra* note 53, at 104.

67. *Id.* at 106.

68. Robert C. Ellickson, *A Critique of Economic and Sociological Theories of Social Control*, 16 *J. LEGAL STUD.* 67, 90-98 (1987) (stating that law and society theories have failed to establish a theoretical system from their work).

69. Leff, *supra* note 13, at 459.

and Economics perspective thus offered order to a legal world that had unsuccessfully searched for order in the real world. Starting in the early 1960's with the publication of Dean Calabresi's celebrated article on torts<sup>70</sup> and Ronald Coase's transformative article on social cost,<sup>71</sup> and gaining momentum through the publication of Judge Posner's *Economic Analysis of Law* in 1973,<sup>72</sup> the Law and Economics movement captured the imagination of large segments of the legal establishment.<sup>73</sup> Law and Economics based its methodology on the ubiquity of choice in a world of scarcity.<sup>74</sup> Every action requires a choice, and declining to choose is also a choice. Thus, one can determine the legal implications of any choice or action by looking at the consequences, and then measuring those consequences against some normative criteria—usually efficiency or the aggregation of total social welfare.<sup>75</sup> The key to the success of Law and Economics was the focus on instrumentalism. Law and legal rules influence human behavior in predictable ways. Thus, the analysis of the likely effects on behavior of a particular legal result provided a map that allowed the economic analyst to identify and chart dominant patterns under the surface of disparate legal principles; to uncover, as it were, the underlying themes or logic of the law.

Using the lens of the Justice Paradox, one can chart the parallels between Law and Economics and the Legal Formalists. Once again, the messy context, the random detail is pushed aside so as to focus on the regularities, the dominating rules that promote Future Justice. The core criticism of Law and Economics is not that it fails to reveal the deep structure of our legal system—in fact, it does that with considerable power and elegance.<sup>76</sup> Rather, the problem with Law and Economics is what I have termed the “spotlight” effect.

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70. Guido Calabresi, *Some Thoughts on Risk Distribution and the Law of Torts*, 70 YALE L.J. 499 (1961).

71. R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

72. RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 20 (3d ed. 1986).

73. BRUCE A. ACKERMAN, *RECONSTRUCTING AMERICAN LAW* 63-64 (1984); Leff, *supra* note 13, at 452-53.

74. POSNER, *supra* note 72, at 3.

75. *Id.* at 20-22.

76. See, e.g., Duncan Kennedy, *Cost-Benefit Analysis of Entitlement Problems: A Critique*, 33 STAN. L. REV. 387, 398-401 (1981). For broader critiques of Law and Economics, see Leff, *supra* note 13.



While it illuminates brightly everything within its focus, it necessarily casts the periphery in shadow. In short, it is that part of the legal structure that is not susceptible to economic analysis—especially the concerns of distributional equity, that is, Present Justice—that gives us pause.<sup>77</sup> Unlike the formalists, the Law and Economics scholars have not resorted to legal fictions to account for the “outliers.” Rather, they simply have chosen to ignore distributional concerns, because their tools have nothing useful to say about them.<sup>78</sup> It is a methodology that works best when it focuses on the “big picture,” and the more Law and Economics scholars attempted throughout the 1980’s to introduce complexity, detail, and context into their analyses, the more they confronted, as had everyone before them, the intractable problem of the Justice Paradox.<sup>79</sup> This confrontation was assisted by the emergence of a new counter-reaction: the Critical Legal Studies movement—members of which are familiarly known as “the crits.”

While the other methodologies embraced political viewpoints ranging from liberal to conservative, the crits were united princi-

77. C.G. VELJANOVSKI, *THE NEW LAW-AND-ECONOMICS* 42-44 (1982); Arthur A. Leff, *Law and . . .*, 87 *YALE L.J.* 989, 1008-11 (1978); Leff, *supra* note 13, at 460-61; Elisha A. Pazner & David Schmeidler, *Egalitarian Equivalent Allocations: A New Concept of Economic Equity*, 92 *Q.J. ECON.* 671, 671 (1978). *But see* Robert E. Scott, *Rethinking the Regulation of Coercive Creditor Remedies*, 89 *COLUM. L. REV.* 730, 782-86 (1989) (stating that rules which address distributive justice will lead, in the long run, to inequitable outcomes).

78. This statement is not completely true, of course. One promising method of using the lens of Law and Economics to evaluate distributive effects is through the normative criteria of “superfairness.” Superfairness analysis seeks to measure the equity or fairness of any distribution solely in terms of the preferences of the persons involved. Under this conception, a distribution is fair if no class of participants would regard its own share as less valuable than the share received by another group. *See* WILLIAM J. BAUMOL, *SUPERFAIRNESS: APPLICATIONS AND THEORY* (1986). For an application of superfairness theory as a criterion for determining distributional effects of legal change, see Scott, *supra* note 77, at 782-86.

79. Robert C. Ellickson, *Bringing Culture and Human Frailty to Rational Actors: A Critique of Classical Law and Economics*, 65 *CHI-KENT L. REV.* 23, 35-54 (1989) (suggesting that Law and Economics begin to integrate ideas from sociology and psychology into its framework); Kennedy, *supra* note 76, at 398-401 (stating that Law and Economics has begun to deal with distributive justice through an expansion of the concept of externalities). For examples of how Law and Economics scholars have attempted, not always successfully, to integrate both conceptions of justice into their analyses, see Charles J. Goetz & Robert E. Scott, *The Mitigation Principle: Toward a General Theory of Contractual Obligation*, 69 *VA. L. REV.* 967 (1983); Robert E. Scott, *Conflict and Cooperation in Long-Term Contracts*, 75 *CAL. L. REV.* 2005 (1987).

pally in their adherence to leftist political values.<sup>80</sup> Deriving much of their intellectual energy from continental philosophy and literary theory, the crits set out to “deconstruct”, and thus destroy, the myth that law and legal institutions are separate from ordinary political debate.<sup>81</sup> In other words, they confronted the Justice Paradox head on and declared it insoluble. Relying heavily on the social theory of alienation, these theorists sought to prove that all legal systems inevitably must fall prey to their own structures; all hierarchies and institutions, all systems of rules, are alienating.<sup>82</sup> This is because all systems of thought are dichotomous. The paradox is ubiquitous, it is inescapable and inevitable. The choice of how to lead a good life must always be made in the present as a part of the political process, driven by specific context, and it cannot be mediated by any institutional conceptions of justice, which are just fictions to ratify the social status quo.<sup>83</sup>

The crits will frankly tell you that throughout the late 1980's many believed that exposing the contradictions in law and legal institutions would lead to a leap of faith, the embrace of leftist political ideology.<sup>84</sup> The fact that most people came to the abyss, peered in and then walked away has been deeply unsettling, leading to a fragmentation of the movement into subgroups with more pragmatic and immediate objectives centered on issues of ethnicity and gender.<sup>85</sup>

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80. Allan C. Hutchinson, *Introduction to CRITICAL LEGAL STUDIES 2* (Allan C. Hutchinson ed., 1989); Robert E. Scott, *The Critical Challenge in Legal Education*, in VA. L. SCH. REP. 6, 8, 9 (1985); Mark Tushnet, *Critical Legal Studies: A Political History*, 100 YALE L.J. 1515, 1516 (1991).

81. Tushnet, *supra* note 80, at 1515, 1517.

82. See, e.g., Hutchinson, *supra* note 80, at 3; Mark G. Kelman, *Trashing*, 36 STAN. L. REV. 293 (1984), reprinted in CRITICAL LEGAL STUDIES, *supra* note 80, at 209, 210; Duncan Kennedy, *The Structure of Blackstone's Commentaries*, 28 BUFF. L. REV. 205, 211-213 (1979).

83. Hutchinson, *supra* note 80, at 3; Kennedy, *supra* note 82, at 217; Mark V. Tushnet, *Following the Rules Laid Down: A Critique of Interpretivism and Neutral Principles*, 96 HARV. L. REV. 781 (1983), reprinted in CRITICAL LEGAL STUDIES, *supra* note 80, at 157, 167-178.

84. Kelman, *supra* note 82, at 210.

85. Critical Race Theory and Critical Feminist Theory are both intricate and fast-developing fields. A full summary of these movements goes beyond the scope of this Essay. It is important to note for our purposes that scholars in both groups share with Critical Legal Theory the conviction that our legal system derives from the political power structure.

This brings us to the present. For all its failures as a political movement, Critical Legal Studies accomplished its primary objective of refocusing our attention on the fundamental tensions in our

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The debate in Critical Race Theory largely concerns the "voice" of minorities, especially blacks, in America. The progenitors of the field argue that racial groups in America have distinct voices—in culture, literature, language, careers, etc.—that, when dealing in a legal context, should not be interpreted by the standards of white culture. See, e.g., DERRICK BELL, *AND WE ARE NOT SAVED: THE ELUSIVE QUEST FOR RACIAL JUSTICE* (1987); Richard Delgado, *When a Story is Just a Story: Does Voice Really Matter?*, 76 VA. L. REV. 95 (1990); Mari J. Matsuda, *Voices of America: Accent, Antidiscrimination Law, and a Jurisprudence for the Last Reconstruction*, 100 YALE L.J. 1329 (1991); Mari J. Matsuda, *Looking to the Bottom: Critical Legal Studies and Reparations*, 22 HARV. C.R.-C.L. L. REV. 323 (1987); Gary Peller, *Race Consciousness*, 1990 DUKE L.J. 758.

This perspective has led to a counter-reaction which questioned the uniqueness of a black voice, and asked if minorities promoted their best interests by demanding to be judged by a standard different from the meritocratic norm purportedly used by white America. See Stephen L. Carter, *The Best Black, and Other Tales*, 1 RECONSTRUCTION 6 (1990); Randall L. Kennedy, *Racial Critiques of Legal Academia*, 102 HARV. L. REV. 1745 (1989). Mark Tushnet has suggested analogous views, stating that the race—and gender—scholarship which uses narrative structure has eroded the role of law as a mediator between the specific and the general. See Mark Tushnet, *The Degradation of Constitutional Discourse*, 81 GEO. L.J. 251 (1992). But see Gary Peller, *The Discourse of Constitutional Degradation*, 81 GEO. L.J. 313 (1992) (critiquing Tushnet's approach as artificially objective).

Alex Johnson has proposed a third perspective, based on context. First, he suggests that while a person's voice necessarily will be influenced by color, a range of black voices exist, not a monolithic one. He further states that the relevance of black voices depends on whether the topic under consideration concerns race. See Alex M. Johnson, Jr., *The New Voice of Color*, 100 YALE L.J. 2007 (1991); Alex M. Johnson, Jr., *Racial Critiques of Legal Academia: A Reply in Favor of Context*, 43 STAN. L. REV. 137 (1990).

A similar discourse has emerged in Critical Feminist Theory, with the voice metaphor being replaced by a same/different dichotomy. The "same" perspective holds that gender and sex differentiations stand as artificial obstacles to achievement by women. The basis of this perspective comes from non-legal work, specifically, BETTY FRIEDAN, *THE FEMININE MYSTIQUE* (1963). For application of the theory to law, see Richard A. Wasserstrom, *Racism, Sexism, and Preferential Treatment: An Approach to the Topics*, 24 UCLA L. REV. 581 (1977) (stating that sexual differences should be no more legally relevant than eye-color). This approach led to a reaction, the watershed of which came in CAROL GILLIGAN, *IN A DIFFERENT VOICE*, *supra* note 1, claiming, from a psychological standpoint, that women possess a more nurturing and relational character than men. For application of this theory to law, see Robin West, *Jurisprudence and Gender*, 55 U. CHI. L. REV. 1 (1988).

This reaction in turn led to a counter-reaction of two sorts. The more fundamental is Catherine MacKinnon's Dominance Theory, which states that the terms of the same/different debate still posit males and masculinity as the norm, with the only question being whether to conform or rebel. She writes, "Take your foot off our necks, and then we will hear in what tongue women speak." CATHARINE A. MACKINNON, *FEMINISM UNMODIFIED* 45 (1987). The second response to Gilligan's approach is typified by Joan Williams, who claims that gender differences do exist between men and women, but that the specific characteristics that Gilligan praises are both stereotypically Victorian and inaccurate. Williams also

legal system. The crits brought the irregularities back to the surface, and left us with a final Hobson's Choice. But if most of us are unwilling to discard either the legal system or the search for a just society, what now?

Is the cycle of rule construction and deconstruction pointless?<sup>86</sup> Are we expanding our understanding of the law, or do we simply use new language and metaphors to describe the same themes? Does each new movement hope, as their predecessors did, that the new language they invent will somehow solve the tension between "justice now" and "justice later"? Arguably, through the (perhaps unintentional) recycling process, we have a more complete and thorough perception of our legal system. One could also argue, however, that society as a whole is more self-aware; thus, it is only natural that law should evolve in a comparable fashion. The question, therefore, is whether the recycling process through which legal concepts are redefined with each new generation is regenerative or stagnant.<sup>87</sup>

Despite the lifelong commitment of myriad legal scholars, the law has not changed significantly in the past seventy-five years. Themes and theories have been recycled through Legal Formalism, Legal Realism, Law and Economics, and Critical Legal Studies, and yet the fundamental law-equity tension remains. What are we to make of such a process?

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takes issue with MacKinnon's conception of the sameness doctrine. See Joan C. Williams, *Deconstructing Gender*, 87 MICH. L. REV. 797 (1989).

A third offspring of the Critical Legal Studies movement, which both draws from and is distinct from Critical Race Theory and Critical Feminist Theory, is a newly developing field focusing on the unique situation, and voice, of black women. See, e.g., Paulette M. Caldwell, *A Hair Piece: Perspectives on the Intersection of Race and Gender*, 1991 DUKE L.J. 365; Angela P. Harris, *Race and Essentialism in Feminist Legal Theory*, 42 STAN. L. REV. 581 (1990); Pamela J. Smith, Comment, *We Are Not Sisters: African-American Women and the Freedom to Associate and Disassociate*, 66 TUL. L. REV. 1467 (1992).

86. Or, as Grant Gilmore concluded his *Death of Contract*: "Perhaps we should admit the possibility of such alternating rhythms in the process of the law." GILMORE, *supra* note 39, at 103.

87. I credit the image to Dean Dudley Woodbridge, who taught me Contracts (and so much else) at William and Mary, and who continually would cajole his students to consider whether "the common law is a flowing stream or a stagnant pond."

## III. CHAOS THEORY

In recent years, using a new theoretical framework called Chaos Theory, scientists have observed that patterns and repetition exist in complex natural processes that would otherwise be dismissed as chaotic.<sup>88</sup> Chaos Theory can best be described as a form of zen, stressing as it does the acceptance of tensions in life and physical processes. "Chaos is a science of process rather than state, of becoming rather than being. . . . Believers in chaos . . . feel that they are turning back a trend in science toward reductionism . . . . They believe that they are looking for the whole."<sup>89</sup>

The first lesson of the whole is the concept of dynamics: all systems are chaotic, in the sense that they are subject to irregularities that make predictions of outcomes in particular cases impossible. A key premise of Chaos Theory, the butterfly effect, states that small changes in initial conditions have fundamental effects on outcomes. Thus, the movement of the wings of a butterfly in Bombay effects the weather patterns in Williamsburg.<sup>90</sup>

I suggest that we should look to Chaos Theory as a metaphor for the way to think about the contradictions and the tensions inherent in the legal system. At the initial level, Chaos Theory tells us to accept the contradictions, the disorder, in our legal system. All systems, including the legal system, are unpredictable and erratic. The butterfly effect teaches us that small differences in initial variables will always produce dramatic variations in final outcomes. By explicitly applying this to law, it becomes clear that even slight differences in the facts of cases result in wildly disparate judicial outcomes. In both instances, disorder is inevitable.

We should take this initial insight as reinforcing the best lessons taught us by the crits. Consider, for example, Grant Gilmore's rather fatalistic conclusion:

Man's fate will forever elude the attempts of his intellect to understand it. The accidental variables which hedge us about effectively screen the future from our view. The quest for the laws which will explain the riddle of human behavior leads us not

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88. GLEICK, *supra* note 2, at 3-5.

89. *Id.* at 298.

90. *Id.* at 8, 20-23.

toward truth but toward the illusion of certainty, which is our curse.<sup>91</sup>

So what is the lesson? We can either continue to challenge the theories of previous legal movements, or we can come to accept that any new movement must recycle old doctrine, but in doing so, will ultimately fail to construct an encompassing theory of law. There is no algorithm for a just society. Chaos in law describes human life. Thus, we in law must continuously be self-conscious, self-criticizing, self-analyzing, but above all, patient and accepting of the limits of our discipline.

It is tempting to conclude, as many CLS adherents have, that this is the only lesson worth learning: the search for a just legal order is a false hope; chaos is inevitable. But there is a much deeper and more powerful insight in Chaos Theory. It is not only that there is disorder in any physical system. Rather, Chaos Theorists have also come to the conclusion that chaotic (or nonlinear) processes are—because of their unpredictability—more stable than those in equilibrium (linear processes).<sup>92</sup> And, the phenomenon that is substantially responsible for this increased stability is the presence of deep patterns imbedded in all chaotic processes, patterns that recur over and over in mathematics, biology, and physics. As one scientist aptly stated when describing his field, “When you reach an equilibrium in biology you’re dead.”<sup>93</sup>

Of all the explorations into the patterned quality of natural processes, the most powerful, for our purposes, is the concept of fractals and self-similarity. As James Gleick describes the phenomenon, “Self-similarity is symmetry across scale. It implies recursion, pattern inside of pattern. . . . Its images are everywhere in culture: in the infinitely deep reflection of a person standing between two mirrors, or in the cartoon notion of a fish eating a smaller fish eating a smaller fish eating a smaller fish.”<sup>94</sup>

Consider this concept of fractals and look once more at the legal system and the Justice Paradox. Like the order that miraculously appears from the disorder of nature, so too, a deep structure exists

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91. GRANT GILMORE, *THE AGES OF AMERICAN LAW* 100 (1977).

92. GLEICK, *supra* note 2, at 48.

93. *Id.* at 298.

94. *Id.* at 103.

in law. The Justice Paradox is like the infinitely recurring patterns produced by a swinging pendulum. The patterns are not identical, but are different in scale or size. So, too, the recurring patterns of contemporary legal thought are not simply the recycling of new ideas, not merely the pouring of old wine into new casks. They are like fractals. Each pattern is similar to the past, but different in scale. The system is dynamic. The phenomenon of patterns formed by unpredictable and irregular human behaviors is reality that should give us comfort in accepting the inevitability of paradox in law. Do not despair because law has fundamental contradictions. It is the very tension whose resolution we seek that keeps our legal system in a dynamic state of continuous renewal and repair. It is the dynamic of the Justice Paradox that keeps our legal system alive.

From the realists' denunciation of formalism, to the critics' spurning of Law and Economics, each new wave of legal thought strives to sweep out the old in the vain hope that we might have it all. But since the paradox cannot be solved, we do the next best thing. We recycle the old ideas under new labels, and the system goes through another cleansing iteration, only to be once more loaded down with the weight of its internal contradictions, waiting to be recycled anew.

Where would the American legal system be if the realists had not questioned the formalists, or the Law and Economics scholars had not challenged the realists? Without the cleansing effects of new paradigms, it is quite conceivable our legal system would have become so constrained by whatever the dominant legal methodology of the times prescribed that it ultimately would have become paralyzed. In a sense, it is the very recycling process—the recurring patterns, the order in the chaos—that teaches us about ourselves as a society. Each movement builds a structure based on theory and application. New movements come along and flatten the old structure and begin anew. But, as we have seen, the new ideas begin with a foundation of the destroyed old structure, so we start each new legal construct on a higher level. The new patterns are similar, but not quite the same as the old. Law is not a linear process; we cannot solve the equation. It backtracks on, recycles and redefines old concepts in order to deal with new dilemmas.

This nonlinearity, or chaos, is, as the new breed of scientists has observed, healthy.<sup>95</sup>

It is perhaps apt to close with a description of Chaos Theory that almost seems to have been written with the Justice Paradox in mind. "Simply put, a linear process, given a slight nudge, tends to remain slightly off track. A nonlinear process, given the same nudge tends to return to its starting point."<sup>96</sup>

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95. I realize that this assertion places me in a situation somewhat akin to the "naturalistic fallacy" committed by the Legal Realists, *see supra* notes 63-64 and accompanying text. However, . . .

96. GLEICK, *supra* note 2, at 292.