

# AGAINST DESIGN

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## ABSTRACT

*Institutions and the incentives they create can be designed or redesigned to produce desired outcomes. But design does not work if social and economic dynamics are “creative.” If it is impossible to know in advance how an institution will change behavior and incentives—and what interests it may serve or harm in the future—then it is impossible to “design” optimal institutions. Like organisms, institutions are adaptive functional wholes that change in unpredictable and unprestateable ways.*

*We examine the history of interpretations of the United States Constitution to illustrate the unpredictable and unprestateable dynamics of institutional change. We highlight how innovative interpretations of the Commerce Clause crafted in the civil rights context of the 1960s provided legal support to the Controlled Substances Act of 1970, which has been used to disproportionately target African Americans in the “War on Drugs.” Further, we explain how judicial expansion of procedural due process rights for criminal defendants created unintended consequences that ultimately undermined safeguards against overzealous prosecution. Our analysis suggests that two leading theories of constitutional interpretation, originalism and living constitutionalism, are both unsatisfactory. Originalists do not adequately recognize that the present differs from the past. Novel situations unimaginable to the framers make it possible to have multiple, inconsistent, but equally originalist interpretations of the Constitution. Living constitutionalists do not adequately recognize that the future will differ from the present. Present interpretations enable entirely new and unforeseen laws, which may produce outcomes opposite to those intended by the crafters of present interpretations. For this reason, both theories have morphed over time and become more similar, showing that theory itself defies design.*

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*We argue that governance must be considered in the light of creative dynamics. Given creative dynamics, it may not be helpful to ask which institutional arrangements are best. We must think beyond the design of optimal institutions and even, perhaps, beyond institutions entirely. Because institutions change in unpredictable and unprestatable ways, it is impossible to ensure fairness by striking a one-time bargain from behind the Rawlsian veil of ignorance. Rather than attempting to engineer optimal institutions, we should explore methods of institutional cultivation and adaptation, viewing institutions as webs of enabling constraints that may create rich or poor adjacent possibilities for agents in the system. Attributes such as redundancy, degeneracy, adaptivity, diversity, and resilience may better predict performance in unforeseen situations. Generating desired aggregate outcomes indirectly through the learning and adaptation of multiple interacting agents allows the system to adapt to novelty and leverages the combinatorial explosion that defeats Rawlsian institutional design.*

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## INTRODUCTION

From modern constitutional theory there has emerged a common emphasis on the rule of law—a set of neutral, universally-applicable legal rules.<sup>1</sup> The elevation of the rule of law over the rule of man<sup>2</sup> has enabled a level of freedom and prosperity previously unknown to humanity.<sup>3</sup> It inspired nations, led by the United States, to craft constitutions that, in their ideal form, would capture the social contract entered into by their constituents and serve as a framework to guide the development of the nation’s laws over time.<sup>4</sup> These constitutions aspire to balance faithfulness to the society’s core values with the flexibility to adapt to changing circumstances. Though the American founders cherished, and in many ways maintained, their inherited English common law tradition,<sup>5</sup> they also came to rely on constitutional design.

Despite the stunning historical success of constitutional design in the Western world, it is increasingly acknowledged that the United States and other Western countries face deep crises of governance.<sup>6</sup> Some have alleged

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1. See Richard H. Fallon, Jr., “*The Rule of Law*” as a Concept in Constitutional Discourse, 97 COLUM. L. REV. 1, 7 (1997); Michael Rosenfeld, *The Rule of Law and the Legitimacy of Constitutional Democracy*, 74 S. CAL. L. REV. 1307, 1308 (2001).

2. Rosenfeld, *supra* note 1, at 1313 n.25 (noting that the Supreme Court made this distinction between “rule of law” and “rule of man” in *Marbury v. Madison*, 5 U.S. 137, 163 (1803), in definitively establishing the institution of judicial review).

3. See Daron Acemoglu et al., *Institutions as a Fundamental Cause of Long-Run Growth*, in 1A HANDBOOK OF ECONOMIC GROWTH 385, 389–90 (Philippe Aghion and Steven N. Durlauf eds., 2005) (explaining importance of stable economic institutions, such as property rights, enforced through rule of law as important factor in economic growth).

4. For the roots of social contract theory in Western constitutional theory, see generally JOHN LOCKE, *SECOND TREATISE OF GOVERNMENT* (1690); JEAN-JACQUE ROSSEAU, *THE SOCIAL CONTRACT* (1762).

5. For a history of the reception of English common law traditions in the American colonies, see William B. Stoebuck, *Reception of English Common Law in the American Colonies*, 10 WM. & MARY L. REV. 393, 398–403 (1968); see also OLIVER WENDELL HOLMES, *THE COMMON LAW*, viii (1881).

6. See, e.g., BRUCE ACKERMAN, *THE DECLINE AND FALL OF THE AMERICAN REPUBLIC* 67–75 (2010); SOTIRIOS A. BARBER, *CONSTITUTIONAL FAILURE* 1 (2014); SANFORD LEVINSON, *FRAMED: AMERICA’S 51 CONSTITUTIONS AND THE CRISIS OF GOVERNANCE* 1 (2012); THOMAS E. MANN & NORMAN J. ORNSTEIN, *IT’S EVEN WORSE THAN IT LOOKS* 102 (2012); KAY LEHMAN SCHLOZMAN ET AL., *THE UNHEAVENLY CHORUS: UNEQUAL POLITICAL VOICE AND THE BROKEN*

that the United States Constitution is flawed and that the institutions of American governance need redesigning, as reflected in calls for a new constitutional convention.<sup>7</sup> We suggest a bold alternative—that the very concept of institutional “design” may have outstripped its usefulness, and may even be unattainable. We argue that the legal system is a complex system that cannot fully be understood using traditional legal theory, and must be supplemented using new tools from interdisciplinary fields. In particular, we draw on the theory of spontaneous order from economics and unintended consequences in sociology, as well as analogous concepts from evolutionary biology and even physics. Although our methodology is somewhat unorthodox, we believe the use of interdisciplinary concepts can illuminate novel aspects of the legal system, or question assumptions so well-entrenched—such as the assumption of design—they may be taken for granted.

Our rejection of design is not normative but descriptive. Regardless of one’s proclivities towards the merits of particular designs, we argue that the concept itself is, like a desert mirage, a persuasive and comforting illusion. We can draw up blue prints to the smallest specification, but we cannot control the execution of our plans as they take on new life within the interlocking adaptive networks that respond to them, a life considerably messier—and more surprising—than our neat, two-dimensional designs can anticipate. In our view, the idea of design, successfully executed through human deliberation, plays a far smaller role in the development of law and policy than is commonly believed.

The illusion of design is particularly compelling with regard to legal institutions, which, we argue, are not actually “designed” but rather emerge spontaneously. The most well-known proponent of spontaneous order, Friedrich Hayek, distinguished between “an economy proper,” characterized by a “unitary hierarchy of ends,” where the purpose is known in advance and knowledge of how to achieve it is given, and spontaneous orders (or “catallaxy”) that are brought about not through intentional

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PROMISE OF AMERICAN DEMOCRACY 31–35 (2012); Jack M. Balkin, *The Last Days of Disco: Why the American Political System is Dysfunctional*, 94 B.U. L. REV. 1159, 1172–76 (2014).

7. Perhaps most prominently, scholars, politicians, and others have called for a constitutional amendment to overturn the Supreme Court’s decision in *Citizens United v. Federal Election Commission*, 558 U.S. 310 (2010), which held that the First Amendment prohibits the government from restricting independent political expenditures from corporations, labor unions, or other associations. See LAWRENCE LESSIG, *REPUBLIC LOST: HOW MONEY CORRUPTS CONGRESS—AND A PLAN TO STOP IT* 243–45 (2011). For a summary and discussion of legal scholarship on the subject, see Jack M. Beermann, *The New Constitution of the United States: Do We Need One and How Would We Get One?*, 94 B.U. L. REV. 711, 718–22 (2014).

planning but by “the mutual adjustment of many individual economies in a market.”<sup>8</sup> The distinction between the two, and its implications for law and policy, is critical: the success of an economy might be determined using traditional engineering or “design”-based principles because its objectives are clear at the outset. Spontaneous orders, however, are far less predictable—and ultimately, controllable—because their success cannot be evaluated in terms of any starting objective. Instead, their operating principles emerge over time as part of a self-organizing process from individual components, just how “the order of the market . . . rests not on common purposes but on . . . the reconciliation of different purposes for the mutual benefit of the participants.”<sup>9</sup>

Therefore, due to the spontaneously self-organizing nature of markets, Hayek spoke of the impossibility of effective centralized economic planning, given the ubiquity of unintended consequences. But he saw legal institutions as different—as “economies” that could be planned and controlled—and argued for the creation and protection of legal institutions, such as respect for the rule of law and private property rights, that would set the preconditions necessary to give rise to normatively desirable spontaneous orders.<sup>10</sup> Similarly, James Buchanan argued that “[i]nstitutions, defined broadly, are variables subject to deliberative evaluation and to explicit choice.”<sup>11</sup> Buchanan adhered to a rationality principle that requires “the minimal step of classifying alternatives into *goods* and *bads*.”<sup>12</sup> And he insisted that if persons are going to live together “they must live by rules that they can also choose.”<sup>13</sup> In short, both thinkers agreed that although economic planning would be futile, legal planning would be valuable.

In our view, the distinction made by Hayek and Buchanan between spontaneous orders and economies is illusory. What appear to be economies are really self-organizing networks or systems akin to spontaneous orders. Legal institutions, designed to be economies, become spontaneous orders as they evolve in response to shifting political and social environments, unforeseen and unforeseeable by the designers of these institutions. All

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8. FREDRICH A. HAYEK, 2 LAW, LEGISLATION AND LIBERTY: THE MIRAGE OF SOCIAL JUSTICE 108–09 (1976).

9. Fredrich A. Hayek, *The Principles of a Liberal Social Order*, in LIBERALISM: IDEAS OF FREEDOM 44 (G. W. Smith ed., 2002).

10. See FREDRICH A. HAYEK, 3 LAW, LEGISLATION AND LIBERTY: THE POLITICAL ORDER OF A FREE PEOPLE 108–09 (1979).

11. JAMES M. BUCHANAN, THE ECONOMICS AND THE ETHICS OF CONSTITUTIONAL ORDER 8 (1991).

12. *Id.* at 15 (emphasis added).

13. *Id.* at 18.

institutions, even the most seemingly fundamental, evolve so as to drift, even dislodge, from their original premises, so that attempts to engineer these institutions will always fall apart in the long run.

We draw the mechanism for this change from the wisdom of spontaneous order, as well as analogous concepts from biological evolution. Legal “designs” are exploited within what Kauffman has called the “adjacent possible,” meaning that they are appropriated for purposes not imagined by their designers.<sup>14</sup> In the aggregate, this process creates spontaneous legal orders—essentially, new affordances, uses or functions, for law—that emerge from the interactions of adaptive agents within the legal system, and society at large, that could not have been thought of or anticipated, much less fully explained, by any single individual within the system. Because legal institutions are always changing, the question at the core of legal and political theory—which institutions best enable good governance?—may not actually be helpful. The focus should not be on designing legal institutions whose survival is impervious to change, but recognizing and finding superior ways to adapt to, the inevitability of change. This means we must think beyond trying to design ideal institutions, and perhaps even beyond institutions entirely.

Our arguments are anchored on a particular view of human nature, rationality and reason. As noted by Herbert Simon, “nothing is more fundamental in setting our research agenda and informing our research methods than our view of the nature of the human beings whose behavior we are studying.”<sup>15</sup> Planning and design presume a type of foreknowledge or even omniscience—an implicit “all-seeing-eye”—that somehow anticipates all future contingencies. This type of rationality is only meaningful for a closed system. But societies are open systems, and thus, designers and planners simply cannot calculate and consider how rules might impact and shape human behavior and incentives in the long run. Rationality and optimality are an illusion, as long-term (particularly large-scale) predictions of human behavior are not possible.<sup>16</sup> Thus, attempts at purposefully designing institutions are susceptible to unanticipated consequences, both positive and negative.<sup>17</sup> This problem is further

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14. STUART A. KAUFFMAN, INVESTIGATIONS 142–43 (2000).

15. Herbert A. Simon, *Human Nature in Politics: The Dialogue of Psychology with Political Science*, 79 AM. POL. SCI. REV. 293, 303 (1985).

16. Karl R. Popper, *Prediction and Prophecy in the Social Sciences*, in THEORIES OF HISTORY 276, 280 (Patrick Gardiner ed., 1959).

17. Robert K. Merton, *The Unanticipated Consequences of Purposive Social Action*, 1 AM. SOC. REV. 894, 895 (1936).

compounded by the surprises that emerge even from very simple forms of social interaction.<sup>18</sup> The problem of design becomes even more intractable as those actors who are impacted by social action and rules can creatively respond in unexpected and surprising ways, for example by entrepreneurially using laws in unanticipated, new ways.<sup>19</sup> Thus, in all, the complexities associated with design—given heterogeneous and evolving actors, interests and motivations, incentives, social interaction, adaptive behavior and learning—make rational design and planning impossible.

Overall we derive our framework from “creative economics,” as described in the article *Economics for a Creative World*.<sup>20</sup> We begin in Part I by describing our framework and situating it within broad trends in legal scholarship, particularly developments in law and economics. In Part II, we map concepts from creative economics onto the evolution of legal institutions, and particularly the development of American constitutional law. We examine the Commerce Clause, separation of powers, and theories of constitutional interpretation, to demonstrate that legal institutions inevitably evolve beyond the intentions of their designers. Our examples show that the divergence between intention and reality occurs at the level of individual provision, structural form, and theory.<sup>21</sup> In Part III, we use our

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18. For example, Thomas Schelling’s model of racial segregation highlights how even simple social interactional dynamics, without anyone being overtly racist, can lead to a surprising macro outcome of racial segregation. See Thomas C. Schelling, *Dynamic Models of Segregation*, 1 J. MATHEMATICAL SOC. 143, 146 (1971).

19. See Teppo Felin et al., *Economic Opportunity and Evolution: Beyond Landscapes and Bounded Rationality*, 8 STRATEGIC ENTREPRENEURSHIP J. 269, 271–72 (2014).

20. Roger Koppl et al., *Economics for a Creative World*, 11 J. INSTITUTIONAL ECON. 1, 3–4 (2014). Richard E. Wagner has taken a similar position, especially when discussing “entangled political economy” and “Herclitian” social change. See Richard E. Wagner, *Entangled Political Economy: A Keynote Address*, in 18 ENTANGLED POLITICAL ECONOMY 15 (Steven Horwitz & Roger Koppl eds., 2014).

21. Theory may seem by definition designed. And, of course, any one product, such as a book, is designed. But we cannot say whether a legal theory will serve the ends or play the role we think. Nor how others will move it forward. It may have contradictions that must somehow be resolved. But we usually do not know what those contradictions are. The resolutions may be very different from anything we can even imagine. Thus, as we shall explain at greater length when discussing originalism and living constitutionalism, theory is subject to the same criticisms we are making of constitutional design. This point is potentially embarrassing to us because we are, after all, proposing a theory of sorts. Our argument folds in on itself and threatens to destroy itself. What happens if we face up to this problem of self-reference? Reflexivity forces us to admit that we do not know where our argument leads in the long run. It is, then, a leap of faith to make our argument and send it into the world to meet an unknowable future. Some such Kierkegaardian leap into the abyss of truth telling seems unavoidable if we are to treat the world as an open system with the potential to generate novel outcomes. And an open-ended theory seems only fitting to an open-ended world in which (as it were) we live

framework to explain why constitutions—and the theories used to interpret them—cannot be designed and redesigned in order to achieve desired outcomes. We discuss how the common-law aspects of constitutional law, such as judicial decision-making, do not fully alleviate the problems resulting from a design-oriented approach. Finally, we explore possible alternatives to engineering optimal institutional arrangements, based on our view that institutions may be *grown* to enable rich or poor adjacent possible opportunities rather than *designed*.

## I. NO “ENTAILING LAWS” IN THE LEGAL SYSTEM

Legal theory’s primary focus has been on “design”—whether design of the institutional arrangements within the legal system, such as the Constitution, or design of the theories employed in their interpretation and subsequent application. By “design,” we mean the process by which designers create a plan based on known constraints and resources in order to achieve some predefined objective.<sup>22</sup> In other words, the “frame” of the problem, or the full set of relevant considerations necessary to define its context and possible solutions,<sup>23</sup> is assumed to be already known.

### A. “Design” of the U.S. Constitution

Articles I–IV of the U.S. Constitution, for example, set out the basic structure of the federal government, including the relative powers of the three branches of government and the relation between the federal

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forwards. Although our leap into truth telling is an act of faith, we can point to the slow improvements in the world over time, some portion of which may, perhaps, be attributed to the truth telling of those who came before us. But, of course, it is also an act of faith to rely on that extrapolation. In the end, it seems, we cannot escape the infinite regress that ensnared Achilles and the Tortoise in Lewis Carroll’s charming parable, *What the Tortoise Said to Achilles*. Lewis Carroll, *What the Tortoise Said to Achilles*, 14 MIND 278, 278–80 (1895).

22. See generally ALLEN NEWELL & HERBERT A. SIMON, HUMAN PROBLEM SOLVING (1972).

23. For a complete discussion of the “frame problem” and how it limits algorithmic reasoning, see Asim Zia et al., *The Prospects and Limits of Algorithms in Simulating Creative Decision Making*, 14 EMERGENCE 89, 97 (2012) (“The essence of the frame problem is that there is no guaranty that this finite list of features and affordances will logically entail the relevant use(s) need to solve a given problem . . . . Thus, there is no effective procedure, or algorithm, to solve arbitrary frame problems.”). As Koppl et al. note, the term seems to have been coined by McCarthy and Hayes. Koppl et al., *supra* note 20, at 23 (citing John McCarthy & Patrick J. Hayes, *Some Philosophical Problems from the Standpoint of Artificial Intelligence*, 4 MACHINE INTELLIGENCE 463 (1969)).



government and the states. Implementation of the design occurs in a discrete sequence of stages. The Constitution was ratified by the states under the process outlined in Article VII, and is amended via the process in Article V.

These constitutional provisions were, at one level, deliberately designed in order to allow for constitutional change in response to unforeseen societal changes—most obviously, in Article V’s amendment provision. At the same time, the constitutional provisions were, perhaps inevitably, premised on certain assumptions about the nature of the American polity and of constitutional change. The amendment process was designed to make it difficult, but not impossible, to amend the Constitution, by requiring approval by two-thirds of the U.S. Senate and House of Representatives and ratification by three-quarters of the States, a process resulting in only twenty-seven amendments since the founding.<sup>24</sup> The process has been defended as setting an appropriately high bar for constitutional change, but it has also been criticized for being too arduous to meet the population’s needs.<sup>25</sup> Whether the amendment process is adequate, however, depends on the accuracy of assumption behind Article V—that, if a constitutional change is deemed sufficiently important, then a supermajority of the Congress and the states will come together to support it. This assumption may have been true at the time of the founding, but appears less realistic in today’s polarized, money-dominated political realm.<sup>26</sup>

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24. The amendment process is actually slightly more complex, as amendments may be adopted by two-thirds of Congress or two-thirds vote of a national convention called by Congress at the request of at least two-thirds of the states, and ratified by legislatures of two-thirds of the states or by two-thirds of state ratifying conventions. U.S. CONST. art. V.

25. Compare Robert G. Dixon, Jr., *Article V: The Comatose Article of Our Living Constitution?*, 66 MICH. L. REV. 931, 943 (1967–68) (calling the convention process in Article V a “dead letter”), and Akhil Reed Amar, *The Consent of the Governed: Constitutional Amendment Outside Article V*, 94 COLUM. L. REV. 457, 457 (1994) (arguing that Article V actually contemplates constitutional change via majoritarian vote in addition to constitutional conventions, thus remedying the shortcomings of the traditional process), with Sanford Levinson, *Designing an Amendment Process*, in CONSTITUTIONAL CULTURE AND DEMOCRATIC RULE 271, 272 (John Ferejohn, Jack N. Rakove & Jonathan Riley eds., 2001) (defending the high bar set by the amendment process as necessary to maintain permanency of constitutional rule).

26. We do not wish to paint a romantic picture of an idyllic past, however. The founders were acutely aware of the problem of “faction” as illustrated by Federalist 10. THE FEDERALIST NO. 10 (James Madison). Nor was partisan vituperation absent. In the Presidential election of 1800, for example, a Republican newspaper described Adams as “a repulsive hermaphroditical character,” while Federalist paper raised the specter of a Jeffersonian administration “profaned by the impious orgies of the Goddess of Reason, personated as in France by some common prostitute.” Jill Ogline, *The Early End of Consensus: Bitter Partisanship Began Soon After George Washington Left the Scene*, 76 AM. SCHOLAR 129, 130 (2007) (reviewing EDWARD J.

The pattern of gaps between the assumptions, or models of the world that govern institutional design, and the complex reality of the design's implementation that inevitably deviates from these assumptions, can be found in every modern legal system. The Constitution, as with other legal institutions, was "designed"—engineered based on a particular social context where the primary relevant considerations were assumed to be known,<sup>27</sup> in the hopes of achieving certain predefined objectives. The result was a series of provisions, carefully crafted to balance competing factors at a number of levels. Fundamentally, these provisions attempted to balance the need for centralized decision-making for effective national governance with the need for dispersal of power to safeguard against tyranny.<sup>28</sup> The system of federalism, which delegated powers between the states and the federal government,<sup>29</sup> was designed to remedy the defects resulting from excessive decentralization under the prior system of government, the Articles of Confederation, while preserving the ability of states to experiment with differing policies and remain accountable to local preferences.<sup>30</sup> Under the system of separation of powers, the three branches of government would divide responsibilities over governance, and numerous checks and balances would ensure the need for cooperation

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LARSON, A MAGNIFICENT CATASTROPHE: THE TUMULTUOUS ELECTION OF 1800, AMERICA'S FIRST PRESIDENTIAL CAMPAIGN (2007)). It seems fair to say, nevertheless, that Congress today is more polarized than in recent decades. See Scott R. Baker et al., *Why Has U.S. Policy Uncertainty Risen Since 1960?*, 104 AM. ECON. REV. 56, 57 (2014). And the environment for political compromise may have been better in the earliest years of the republic, as suggested by such important compromises as the United States Constitution.

27. We emphasize here that even if the framers conceded that they did not know every single consideration in designing a Constitution, the efficacy of the design process nonetheless depends on knowing the primary, or most important, circumstances affecting the design. We assert the impossibility of even this more modest ambition. Even if we could generate a complete list of circumstances that could affect a system, there is no logical way to determine in advance which will actually become relevant. Zia et al., *supra* note 23, at 97 (explaining that the "set of features and relational features [relevant to solving a given problem] is neither bounded nor orderable, that is listable.").

28. See THE FEDERALIST NO. 39, at 257 (James Madison) (Jacob E. Cooke ed., 1961) ("The proposed Constitution . . . is in strictness neither a national nor a federal constitution; but a composition of both.").

29. See U.S. CONST. art. VI, cl. 2 (establishing the U.S. Constitution, federal statutes, and U.S. treaties as "the supreme law of the land" that govern over conflicting state law); U.S. CONST. amend. X ("The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.").

30. See *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) (describing how, under federalism a "state may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country."); THE FEDERALIST NO. 39, *supra* note 28, at 257.

between the branches on everything from passage of laws to the nomination of judges.<sup>31</sup> Such division of powers was intended to ensure that each branch would check the others' ambitions, for the ultimate protection of individual liberty.<sup>32</sup> A bicameral legislature, with one chamber's composition based on population and the other with the same number of senators for each state, would further ensure that legislative action would be deliberate, thoughtful and representative of diverse interests.<sup>33</sup> A Bill of Rights was added, after much debate, in order to supplement the Constitution's structural checks on undue accumulation of power by enumerating certain inviolate individual rights.<sup>34</sup>

In short, the Constitution was thoughtfully designed in furtherance of certain objectives—namely, the balance between effective, representative government and respect for individual rights. Its provisions were the result of logical reasoning from the known axioms of human behavior, used to engineer superior means to achieve those stated ends. This approach assumed that the factors relevant to constitutional design could be discerned in advance, and that human reason would derive superior institutional arrangements based on these factors. The framers' faith in human reason as the mechanism of design<sup>35</sup> was deeply rooted in contemporary philosophical movements, particularly the French Enlightenment.<sup>36</sup>

But there are limits to such an approach. The constitutional method of self-governance may overestimate the abilities of reason and, consequently, the efficacy of design. Rather, the American system relies too heavily on

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31. See THE FEDERALIST NO. 47, at 324 (James Madison) (Jacob E. Cooke ed., 1961) (“The accumulation of all powers legislative, executive and judiciary in the same hands . . . may justly be pronounced the very definition of tyranny.”).

32. See *Bowsher v. Synar*, 478 U.S. 714, 722 (1986) (stating that “checks and balances were the foundation of a structure of government that would protect liberty.”).

33. THE FEDERALIST NO. 51, at 282 (James Madison) (J.R. Pole ed., 2005) (“In republican government, the legislative authority necessarily predominates. The remedy for this inconveniency is to divide the legislature into different branches . . .”).

34. See THE FEDERALIST NO. 84 (Alexander Hamilton) (arguing that the Constitution's structural checks rendered a Bill of Rights unnecessary); ANTIFEDERALIST NO. 84 (Brutus) (criticizing the proposed Constitution for not including a declaration of rights).

35. See generally Neil Duxbury, *Faith in Reason: The Process Tradition in American Jurisprudence*, 15 CARDOZO L. REV. 601 (1993).

36. Harold J. Berman, *The Impact of the Enlightenment on American Constitutional Law*, 4 YALE J.L. & HUMAN. 311, 311 (1992) (situating the framers' ideas in the history of different strains of the Enlightenment). For an analysis of European thinkers that influenced the framers, noting that French Enlightenment philosopher Montesquieu ranks far above any other philosophers in terms of citation count, see generally Donald Lutz, *The Relative Influence of European Writers on Late Eighteenth Century Political Thought*, 78 AM. POL. SCI. REV. 189 (1984).

“engineered” institutions that do not sufficiently account for the evolutionary, creative nature of institutional change. The promise of the Rawlsian veil of ignorance—that fair legal rules can be fashioned from a position of ignorance, where we do not know our social status beforehand—may ultimately fall short.<sup>37</sup> Rawls’ thought experiment was meant to inspire parties to consider the perspective of all of society’s members, including its best-off and worst-off members, in order to effect a more just allocation of rights, duties, and resources in society.<sup>38</sup> But this one-time Rawlsian bargain behind the veil of ignorance is insufficient in a world where institutions themselves evolve beyond the intentions of the designers. Thus, the veil is facing a moving target. As David Strauss explains, since the Constitution was ratified:

[T]he world has changed in incalculable ways. The nation has grown in territory, and its population has multiplied several times over. Technology has changed, the international situation has changed, the economy has changed, social mores have changed—all in ways that no one could have foreseen when the Constitution was drafted. And it is just not realistic to expect the cumbersome amendment process to keep up with these changes.<sup>39</sup>

Rather than deterministic rules that mechanistically generate predefined behavior, legal institutions develop through evolutionary changes that cannot be predicted, or even fully understood, by any particular individual within the system. We clarify that by “law,” we refer not only to constitutional provisions, statutes passed by legislatures, and regulations promulgated by administrative agencies, but also judicial interpretive doctrines and judge-made common law. Of course, judge-made law is distinct from the former types of law-making, as it relies on case-by-case analysis and contemplates gradual legal evolution rather than systemic and centralized change.<sup>40</sup> However, the common result of these types of law is to establish generally-applicable rules for individuals and institutions in society, and the rules—even common law rules created by judges—are

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37. JOHN RAWLS, A THEORY OF JUSTICE 118 (1999) (describing a veil of ignorance as a situation where “no one knows his place in society, his class position or social status; nor does he know his fortune in the distribution of natural assets and abilities, his intelligence and strength, and the like”).

38. *Id.*

39. DAVID STRAUSS, THE LIVING CONSTITUTION 1–2 (2010).

40. See OLIVER WENDELL HOLMES, *The Path of the Law*, in COLLECTED LEGAL PAPERS 167 (1920); see also 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, 638 (2001) (discussing the notion of common law evolution).

specifically contemplated and enacted by individuals within centralized institutions, rather than emerging organically from the dispersed actions of many individuals.<sup>41</sup> As we explain later, common law decision-making may be a partial solution to the problems of design, but it retains many aspects of design so that it is not sufficiently decentralized or adaptive to fully alleviate these problems.

B. *Why “Design” Doesn’t Work: Affordances of the Law*

In essence, we question the implicit assumption of stasis in institutions—that they can be designed to operate in mechanical and predictable ways, like clocks we wind up and let go—and argue instead that legal institutions are not governed by mechanical (or “algorithmic”) laws of change. The abiding presumption has been that, like the “laws of physics,” legal institutions are “law-governed,” in the sense that there are known principles allowing us to predict in relative detail how the institutions will function in the social system. These presumed principles are like laws of motion for the institution. But in analogy with Koppl et al. we will call them “entailing laws.”<sup>42</sup> We think this label is apt since it seems that many legal theorists implicitly presume that “everything that happens as the system unfolds was already implicit in the initial conditions and the assumed laws of motion.”<sup>43</sup> The presumption is that individual and institutional behavior follow deterministically from a set of basic axioms, and rules can be designed to predictably affect these behaviors.<sup>44</sup> The lack of “entailing law” thus

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41. Of course, we do not intend to deny the existence of any evolutionary aspects of common law decision-making. See generally E. Donald Elliott, *The Evolutionary Tradition in Jurisprudence*, 85 COLUM. L. REV. 38 (1985). The judicial process, however, retains centralized, coercive aspects, inherent to the fact that a single judge (or panel of judges) creates a doctrine within the context of a single case that binds future parties (unless and until that doctrine is later modified). Although common law has greater evolutionary and adaptive aspects relative to statutory law-making, it is less evolutionary than, say, crowd-sourced decision-making. For a deeper discussion of this distinction and how it bears on our criticism of design, see *infra* Part III.

42. Koppl et al., *supra* note 20, at 4.

43. *Id.* at 5.

44. Zia et al., *supra* note 23, at 95 (explaining Alan Turing’s objection to the frame problem, which he called “Lady Lovelace’s Objection”). Turing noted Lady Lovelace’s characterization of an analytical engine as having “no pretensions to originate anything. It can do whatever we know how to order it to perform.” *Id.* Turing rejected this view on the basis that “there is nothing new under the sun,” and that computers can be programmed to “learn” everything out there. *Id.* Though Turing’s view has long been mainstream, Zia et al. note that, “[i]n fact, the framing and/or affordances problem has bedeviled programmers” since Turing invented the precursors to modern computers. *Id.* at 96.

describes the legal system at two levels. First, unlike the “laws of physics,” legal systems are not governed by entailing laws. Second, and correspondingly, humans cannot design stable, predictable institutions whose form and function endure over time based on fixed entailing laws.<sup>45</sup>

The legal system is not governed by entailing laws, because the full range of relevant variables that may affect a system’s development—or the frame of the system—cannot be ascertained either when the system is created or as it changes over time.<sup>46</sup> The larger system within which a legal rule or a legal institution functions is subject to unpredictable, unimaginable, unprestateable change. The very dimensions of the system change in unknowable ways. Continuing our rather loose physics analogy, we may say that the system’s “phase space” is not stable—that is, we cannot know all the relevant variables that might affect the system’s evolution. Without knowing these variables, it is impossible to derive the inputs necessary to generate a set of legal rules based on an accurate and sufficiently detailed understanding of the relevant legal environment. In law-governed systems, we can “prestate the configuration space or phase space, which is given by the set of pertinent observables and parameters.”<sup>47</sup> In order to have a comprehensive, testable model or theory for a system, the system’s endogenous variables must not only be observable, but also known and capable of being listed ahead of time. In short, all possible states of the system must exist in a stable phase space, and all possible paths of the system must be predetermined.

This assumption of a stable state space also underlies the notion of general equilibrium in mainstream economics—that all future goods or actions within the economy can be mapped, and calculated by omniscient rational actors. Koppl et al. argue that standard economic theory is comparable to “a computer that has been programmed to execute [a] master set of equations.”<sup>48</sup> Under this analogy, “[w]hen the economist feeds in the hypothetical initial conditions a given policy would create, the computer spits out the future path the system would take if the policy were adopted.”<sup>49</sup> The central assumption is that all agents in the economy—designers and actors alike—operate with the same omniscient model of the world, with no

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45. See Stuart Kauffman, *Beyond Entailing Law?*, NATIONAL PUBLIC RADIO (Jun. 20, 2011, 11:28 AM), <http://www.npr.org/blogs/13.7/2011/06/20/137296039/beyond-entailing-law> (positing “the ever changing configuration space of possibilities for evolution of the biosphere, econosphere and upward”).

46. See Zia et al., *supra* note 23, at 95–97.

47. Koppl et al., *supra* note 20, at 6 (emphasis omitted).

48. *Id.* at 4.

49. *Id.* at 5.

variation. As noted by Nobel Laureate Thomas Sargent, “the fact is that you simply cannot talk about those differences within the typical rational expectations model. There is a communism of models. All agents inside the model, the econometrician, and God share the same model.”<sup>50</sup> Overall, while acknowledging its limitations, legal theorists generally operate under largely the same assumptions—that laws will produce predictable consequences and that future contingencies can be anticipated.

But economic and legal conditions change in unforeseeable ways, making it impossible to compute a future trajectory with precision. The Constitution was, in a sense, meant to serve as a sort of blueprint for the American government and the development of its legal system. The dramatic changes over time in the government’s structure and evolution demonstrate that constitutional “design,” despite the efforts of the designers, does not lead to stable, unchanging institutions. Rather, these institutions evolve over time and outstrip the original design, to the point that the original institutional configurations may no longer be recognizable.

Laws do not merely constrain societal agents by defining the actions required by particular circumstances, they also enable these adaptive agents to innovate in their future actions and consequently guide the continuous development of the system. The law constrains, but in doing so it also enables. Because the space of possible outcomes of a given law is not fully prestatable, it is impossible to predict with certainty what the consequences of a given law will be. The unprestatability of future possibilities enables creative evolutionary change through the process of Darwinian preadaptation, in which a characteristic of no selective use in one environment finds new uses as the environment changes.<sup>51</sup> Preadaptations arise through the characteristics of an institution that are unhelpful in one environment but turn out to be useful in another. This process “yields new, adjacent, possible empty niches that were not *selected* as niches per se at all.”<sup>52</sup> Laws act as adjacent possible niches, or “tools” that adaptive actors, from lawyers to regulators to business and lay people, exploit in order to fulfill their own purposes, creating new systemic behaviors that may

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50. George W. Evans & Seppo Honkapohja, *An Interview with Thomas Sargent*, 9 *MACROECONOMIC DYNAMICS* 561, 566 (2005).

51. STUART KAUFFMAN, *REINVENTING THE SACRED* 131–32 (2008). Stephen Jay Gould and Elisabeth S. Vrba propose the term “exaptation.” Stephen Jay Gould & Elisabeth S. Vrba, *Exaptation—A Missing Term in the Science of Form*, 8 *PALEOBIOLOGY* 4, 6 (1982).

52. Stuart Kauffman, *The End of a Physics Worldview: Heraclitus and the Watershed of Life*, NATIONAL PUBLIC RADIO (Aug. 8, 2011, 10:36 AM), <http://www.npr.org/sections/13.7/2011/08/08/139006531/the-end-of-a-physics-worldview-heraclitus-and-the-watershed-of-life> (emphasis added).

diverge radically from the underlying purposes behind the law. These adaptive agents creatively adjust in order to continue to maximize their objectives within the new legal landscape.

One way to think about this creativity and novelty is to point to the “affordances” of law. That is, laws are designed to be used for specific, *a priori* purposes and functions, as anticipated by legislators and designers.<sup>53</sup> Thus, laws have a set of affordances, or uses and functions, with commensurate expectations and incentives for those who are implicated by these laws. But the full set of possible uses and functions for a given law, once met by adaptive and creative agents (and in interaction with others laws and institutions), cannot be anticipated in any meaningful way. The mistake of an omniscient, all-seeing view of the law—or markets for that matter—is the assumption that all the possible uses, functions and consequences of social action can somehow be anticipated. But they simply cannot: the heterogeneity of interests and agents creates dynamics that continually yield new affordances and uses for laws. Thus, the emergent and continually evolving affordances of law also deserve careful attention. Our discussion of the Commerce Clause illustrates the unanticipated and evolving uses of law in society.

This co-evolutionary process between law and society cannot be controlled, predicted, or even fully understood. The spontaneous order of law emerges from the innumerable interactions of judges, lawyers, policy makers, regulated entities and the society at large. Institutions are generated from the “entrepreneurial” innovations of many dispersed actors, which contribute to the evolution of institutions beyond their original design in order to adapt to shifting environments. No single individual holds a complete understanding, nor could she, of the emergent and continually evolving legal code and its sprawling enforcement mechanisms.<sup>54</sup> Laws are set in motion and catapulted into an ever-evolving dance between the legal system and the entities it regulates. In turn, this dance creates ever-new “opportunities” in an ever-changing but unintended adjacent possible into which the legal system evolves and creates yet further adjacent possible opportunities. Laws are “used” for purposes not intended or envisioned by those creating the laws. Often without intent or foresight, this evolution creates its own future possibilities and then expands into them. Rather like jazz or improvisational comedy, the system enables that which it becomes.

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53. See JAMES J. GIBSON, *THE ECOLOGICAL APPROACH TO VISUAL PERCEPTION* 127 (1986) (“The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill.”).

54. HAYEK, *supra* note 8, at 108–09.



This “enablement” perspective explains common behaviors in the legal system, such as the tendency for regulated entities to use the law as a tool for arbitrage by finding innovative ways to comply in a technical sense while evading the law’s purpose or “spirit.”<sup>55</sup> Ultimately, adaptive agents, both within and outside of the legal system, use the law as a tool to fulfill their given objectives. Bootleggers, for example, may profit from legal restrictions on the sale of alcohol.<sup>56</sup> Given the ceaseless creativity in the myriad of societal actors mutually adapting to the new law, uncertainty is an innate feature of law.

### C. Challenge to Current Ideological Approaches

For these reasons, the creative dynamics of social evolution place the “design” of institutions more or less out of our hands. Although we base our reasoning on economic analysis, our “creative economics” approach to law departs from prevailing notions in the law and economics movement, which have paralleled developments in economics more generally.<sup>57</sup> Law and economics scholars, beginning with Coase and Calabresi, argue that legal institutions are a type of marketplace governed by the laws of economics.<sup>58</sup>

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55. See Victor Fleischer, *Regulatory Arbitrage*, 89 TEX. L. REV. 227, 229 (2010) (providing a theory of regulatory arbitrage and the conditions that give rise to it). The literature on regulatory arbitrage is particularly well developed regarding financial regulation and tax law. See, e.g., A. Michael Froomkin, *The Internet as a Source of Regulatory Arbitrage*, in BORDERS IN CYBERSPACE 142 (Brian Kahin & Charles Nesson eds., 1997); Frank Partnoy, *Financial Derivatives and the Costs of Regulatory Arbitrage*, 22 J. CORP. L. 211, 215–16 (1997). However, arbitrage also has permutations in various other areas of law. See MARK PIETH, FINANCING TERRORISM 7 (2002) (discussing how arbitrage is used in financing terrorism); Pamela Samuelson, *Intellectual Property Arbitrage: How Foreign Rules Can Affect Domestic Protections*, 71 U. CHI. L. REV. 223, 225–26 (2004) (analyzing arbitrage in intellectual property law).

56. Bruce Yandle, *Baptists and Bootleggers: The Education of a Regulatory Economist*, 7 REG. 12, 13–14 (1983).

57. The most important anticipation of our general approach to law and economics might be Mario Rizzo’s defense of strict liability. Mario J. Rizzo, *Law amid Flux: The Economics of Negligence and Strict Liability in Tort*, 9 J. LEGAL STUD. 291, 291 (1980). Rizzo, however, takes “unpredictable flux” as an assumption given without explanation. *Id.* Rizzo concludes, “[i]ronically, it is precisely because we live in a dynamic world where the information needed by the ‘fine-tuners’ is not available that the answer must be the antiquated and static system of strict liability.” *Id.* at 318. We do not take a position on the correct legal standard for liability beyond noting the risk that any standard might eventually produce bad unintended consequences.

58. See, e.g., GUIDO CALABRESI, THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS 69 (1970); R. H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1, 2 (1960)

This insight led Coase to develop his theory of market-based negotiation of legal entitlements, based on a hypothetical world absent transactions costs.<sup>59</sup>

Coase himself was quite clear and explicit that transaction costs are *not* zero or, generally, very low. In the imaginary world of zero transaction costs, it matters little or not at all how property rights are allocated, so long as they are defined with each right being allocated to someone, anyone.<sup>60</sup> “Coasean bargains” will ensure that every right goes to its highest valued user. Turning away from the blackboard and looking out the window, Coase explained, we see that transaction costs are not zero and that, consequently, it matters very much who has what right.<sup>61</sup> Unfortunately, many supposed Coaseans have kept their gaze undeviatingly upon the blackboard, without thought to what lies beyond. This glass bead game would be harmless if they did not apply their Flatland logic to the real world. Unfortunately, many scholars of law and economics do just that.

The view of law as marketplace has remained the fascination of generations of public choice theorists.<sup>62</sup> But these trail-blazing scholars have been criticized for their heavy reliance on neoclassical economic theory, particularly rational choice theory.<sup>63</sup> As behavioral economics rose in prominence, a new wave of scholars, led by Cass Sunstein, have criticized the rational choice view of consumers as omniscient and mechanically calculating, instead emphasizing the cognitive biases and irrationalities in decision-making unearthed by developments in behavioral psychology.<sup>64</sup> At

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[hereinafter Coase, *Social Cost*]; R. H. Coase, *The Nature of the Firm*, 4 *ECONOMICA* 386, 390 (1937).

59. See Coase, *Social Cost*, *supra* note 58, at 8–15.

60. *Id.* at 15.

61. *Id.*

62. See generally RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* (1972); Michael A. Crew & Charlotte Twight, *On the Efficiency of Law: A Public Choice Perspective*, 66 *PUB. CHOICE* 15 (1990); Dwight R. Lee, *Politics, Ideology, and the Power of Public Choice*, 74 *VA. L. REV.* 191 (1988); Jonathan R. Macey, *Transaction Costs and the Normative Elements of the Public Choice Model: An Application to Constitutional Theory*, 74 *VA. L. REV.* 471 (1988); Robert D. Tollison, *Public Choice and Legislation*, 74 *VA. L. REV.* 339 (1988).

63. But see BUCHANAN, *supra* note 11, at 5. James Buchanan, the important pioneer of public choice theory, viewed the social world as open-ended and did not fit the usual description of “rational choice theory.” See *id.*

64. See, e.g., On Amir & Orly Lobel, *Stumble, Predict, Nudge: How Behavioral Economics Informs Law and Policy*, 108 *COLUM. L. REV.* 2098, 2100–01 (2008); Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 *STAN. L. REV.* 1471, 1473–76 (1998); Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 *CALIF. L. REV.* 1051, 1059 (2000); Richard H. Thaler & Cass R. Sunstein, *Libertarian Paternalism*, 93 *AM. ECON. REV.* 175, 175 (2003). But see Gregory Mitchell, *Why Law and Economics’ Perfect Rationality Should Not Be Traded for Behavioral Law and Economics’ Equal Incompetence*, 91 *GEO. L.J.* 67, 77 (2002).

the same time, critical legal theorists, the intellectual descendants of twentieth century realists, have questioned the value assumptions regarding utility, efficiency, and wealth allocation underlying mainstream law and economics, and examined similar problem sets using a Marxist approach.<sup>65</sup> Further, like economics generally, developments in complexity theory have had a creeping influence on law and economics scholarship but have not infringed on the core of the mainstream neoclassical approach.<sup>66</sup>

Like law and economics scholars, we see the law as a marketplace governed by a kind of economic dynamics. But we depart from prevailing assumptions regarding the nature of these economic dynamics. We find a common missing link in rival economic theories of neoclassical and behavioral economics as applied to law, which mirrors our prior criticisms of prevailing economics. While sharing certain disagreements, prevalent law and economics theories have common intellectual roots in the presumption that legal institutions, like the economy, are logically entailed by algorithmic—as in, deterministic and predictable—rules.<sup>67</sup> The rival theories simply disagree about the composition of these rules. The presumption is that there is an ideal set of institutions, and an ideal theory, or set of theories, to explain their development. Controversy exists not over the durability of these institutions or the theories used to explain them, but rather over the “correctness” of particular institutional arrangements and explanatory paradigms. The debate between rival economic approaches has significant consequences for the burgeoning American administrative state and its ambitious task of regulating complex social, economic, and environmental systems.

The co-evolutionary process between law and society creates difficulties for competing political theories as well. These difficulties are shared by views generally thought to be more or less at antipodes. Progressivism and

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65. See, e.g., Cheryl I. Harris, *Whiteness as Property*, 106 HARV. L. REV. 1709, 1724 (1993); Mark Kelman, *Misunderstanding Social Life: A Critique of the Core Premises of Law and Economics*, 35 J. LEGAL EDUC. 274, 274–75 (1983); Duncan Kennedy, *The Structure of Blackstone’s Commentaries*, 28 BUFF. L. REV. 205, 209 (1979). See also ROBERT HALE, *FREEDOM THROUGH LAW: PUBLIC CONTROL OF PRIVATE GOVERNING POWER*, 541–43 (1952).

66. For a critique of the reductionism of legal theory and its failure to acknowledge complexity, see J.B. Ruhl, *Complexity Theory as a Paradigm for the Dynamical Law-and-Society System: A Wake Up Call for Legal Reductionism and the Modern Administrative State*, 45 DUKE L.J. 849, 851 (1996) (“If society evolves in response to changes in law, and vice versa, then law and society must coexist in an evolving system. Each needs the other to define itself.”). For a general critique of the failure of mainstream neoclassical economics to adopt complexity theory principles, see STEVE KEEN, *DEBUNKING ECONOMICS* (2d ed. 2011).

67. Koppl et al., *supra* note 20, at 6.

anarcho-capitalism, for example, are far apart.<sup>68</sup> But both systems of political thought seem to depend on the view that we can design political institutions. Woodrow Wilson<sup>69</sup> favorably cites Johann Caspar Bluntschli,<sup>70</sup> suggesting that we “separate administration alike from politics and from law” and quotes his description of “administration” as the “province” of “the technical official.”<sup>71</sup> Democracy will prevent the “distinct, semi-corporate body” of technical officials from becoming “a domineering, illiberal officialism.”<sup>72</sup> Wilson is not clear on how this noble goal is to be achieved, nor on what can be done to right the ship of state if an “illiberal officialism” emerges. He is confident, however, that we can create a beneficent administration of experts that will serve the higher good for the indefinite future.<sup>73</sup>

Murray Rothbard’s epistemic optimism is even greater than Wilson’s. He reduces the “libertarian creed” to “one central axiom: that no man or group may aggress against the person or property of anyone else.”<sup>74</sup> This “axiom” is equated with an “absolute right to private property,” which consists in a “right of self-ownership” and a homesteading principle.<sup>75</sup> “The entire libertarian doctrine then becomes the spinning out and the application of all the implications of this central doctrine.”<sup>76</sup> Like a Euclid of political geometry, Rothbard infers anarcho-capitalism from his one “central doctrine.”<sup>77</sup>

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68. Jack Russell Weinstein illustrates the problem of defining “progressivism.” Jack Russell Weinstein, *On the Meaning of the Term Progressive: A Philosophical Investigation*, 33 WM. MITCHELL L. REV. 1 (2006). Weinstein says in part, “a progressive is a person who believes that social reform is achievable over time with the proper mixture of individual participation and government support. He or she . . . recognizes that there is a universal standard for justice while acknowledging that only by understanding particular contexts and circumstances can the adequacy of the progress be measured.” *Id.* at 50. This definition says that a “progressive” should give the proper weight to every consideration, but does not provide guidance in weighing competing considerations. “Progressivism” is thus defined vacuously as whatever views are most reasonable. It seems fair, however, to cite Wilson’s 1887 essay as an important expression of the progressive vision. Woodrow Wilson, *The Study of Administration*, 2 POL. SCI. Q. 197 (1887).

69. Wilson, *supra* note 68, at 210.

70. JOHANN CASPAR BLUNTSCHLI, POLITIK ALS WISSENSCHAFT 467 (1876).

71. Wilson, *supra* note 68, at 210–11.

72. *Id.* at 216.

73. *Id.* at 16–17.

74. MURRAY N. ROTHBARD, FOR A NEW LIBERTY: THE LIBERTARIAN MANIFESTO 27 (2d ed. 1978).

75. *Id.* at 47–48.

76. *Id.* at 48.

77. *Id.*

The politics of Wilson and Rothbard are very different. One elevated the state, and the other excoriated the state. From our point of view, however, these two thinkers share one striking similarity. They both favor design. They both believe we can design institutions today that will serve our current values and intentions far into the future. It is precisely this shared faith in design that we repudiate.

Our position against design places us outside the usual American debate on “regulation” and “deregulation.” We note with Vernon Smith<sup>78</sup> that “the language ‘regulation’ or ‘deregulation’” is “unfortunate language.” Economists of the “Austrian” school have warned of the “perils of regulation.”<sup>79</sup> We strongly agree that regulation has the very sort of perils that Kirzner warns of. But deregulation too has these same epistemic perils. We are equally concerned with the “perils of *deregulation*.” We adopt what Koppl has called “Humean status quo bias,” and note Hume’s remark that “a regard to liberty, though a laudable passion, ought commonly to be subordinate to a reverence for established government.”<sup>80</sup> Our position is similar to that of Charles Lindblom, who argued in favor of “muddling through.”<sup>81</sup>

We assert that the history of the United States Constitution, and its gradual failure, provides a compelling demonstration that design does not work. Power structures, institutions, and people will find ways to subvert the initial intent behind institutions in furtherance of their own interests. Thus, we should rethink the basis for how institutions are created and how they evolve. Perhaps more importantly, we should acknowledge the limits on the efficacy of legal institutions, and question whether we should expect legal institutions to regulate human social life in ways that are simply not possible.

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78. Dr. Vernon Smith, *F.A. Hayek and the Nobel Prize*, MERCATUS CENTER AT GEORGE MASON UNIVERSITY, 37:47 (Oct. 2, 2014, 2:00 PM), <http://mercatus.org/events/40-years-after-nobel-fa-hayek-and-political-economy-progressive-research-program>.

79. ISRAEL M. KIRZNER, *DISCOVERY AND THE CAPITALIST PROCESS* 119–49 (1985).

80. Roger Koppl, *Complexity and Austrian Economics*, in *HANDBOOK OF RESEARCH ON COMPLEXITY* 404 (J. Barkley Rosser, Jr. & Kirby L. Cramer, Jr. eds., 2009); 6 DAVID HUME, *THE HISTORY OF ENGLAND FROM THE INVASION OF JULIUS CAESAR TO THE REVOLUTION IN 1688* 357 (1983).

81. Charles E. Lindblom, *The Science of “Muddling Through,”* 19 *PUB. ADMIN. REV.* 79, 88 (1959).

## II. CONSTITUTIONAL FAILURES

Legal evolution can transform beyond recognition even the most fundamental, constitutionally-ascribed institutions. Take the seemingly basic distinction between common law systems, which are based on judge-made, case-by-case law, and civil law systems, based on centralized, statutory, system-wide law. Arthur T. von Mehren empirically compared the two types of systems and found that, over time, common law systems have come to rely more on statutes and civil law systems have come to rely more on judge-made law.<sup>82</sup> Currently, the similarities between the two systems may even subsume the differences, making the distinction between them increasingly obsolete.<sup>83</sup> This historical development belies the assumption of stasis and a bounded possibility space guiding institutional development over time.

Such radical shifts between how a system was designed, and how it ultimately manifests itself, can be seen throughout the American legal system, including in the evolution of constitutional law. In this Part, we apply our framework to explain how the understanding of U.S. constitutional provisions may evolve in ways that defy the intentions of the designers. With the exception of Madison's compelling argument for separation of powers, we do not focus on the intentions of the framers, as debates over originalism have shown the folly in attempting to discern this original meaning with any level of confidence.<sup>84</sup> Instead, we focus primarily on judicial interpretations of these provisions, the doctrines that give them life and meaning in specific situations, and the practical consequences of these decisions. In particular, we examine the interplay between judicial interpretations of the Commerce Clause of Article I, Section 8 and due process guarantees in the Fifth and Fourteenth Amendments, and the adaptive reactions of the other branches of government in response to these judicial decisions. We conclude that judicial interpretations of constitutional clauses act as adjacent possible niches that enable adaptive actions by others within the system in response to the judicial decisions. These responsive actions generate unintended higher-order societal consequences that may ultimately undermine the judges' intentions. Similarly, theories of

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82. Arthur T. von Mehren, *Some Reflections on Codification and Case Law in the Twenty-First Century*, 31 U.C. DAVIS L. REV. 659, 660 (1998).

83. *Id.* at 667–70. See also William Tetley, *Mixed Jurisdictions: Common Law v. Civil Law (Codified and Uncodified)*, 60 LA. L. REV. 677, 701 (1999); Gunther A. Weiss, *The Enchantment of Codification in the Common-Law World*, 25 YALE J. INT'L L. 435, 531–532 (2000).

84. See e.g., THE FEDERALIST NO. 51 (James Madison).

constitutional design and interpretation have coped with legal evolution by *themselves* evolving. Like the synthesis of civil and common law systems, rival theories of constitutional design and interpretation have in fact merged over time in order to take advantage of each approach's relative strengths while mitigating their weaknesses.

### A. Commerce Clause

First, we examine the recent history of the Commerce Clause of the Constitution,<sup>85</sup> which gives Congress the power to regulate interstate commerce, to show how this provision has been used as an adjacent possible niche to alternatively further and hinder the cause of racial equality. Broad judicial interpretations of the Commerce Clause, undertaken to justify laws banning private segregation, had the unforeseen consequence of also providing constitutional justification for the federal War on Drugs, which disproportionately harmed African Americans. Once set in motion, the racial disparity of these laws was magnified as they interacted with the complex network of prosecutors, police, and other branches of government, creating a racial inequality that was not caused by any individual, but rather emerged from the various interactions of individuals pursuing their own objectives. Thus, the racism of individuals was amplified, even overtaken, by these emergent institutional effects.

#### 1. Judicial Expansion of the Commerce Clause

The Constitution creates a federalist system that includes a national government conscribed by enumerated and limited powers.<sup>86</sup> Therefore, Congress cannot pass laws without grounding their justification in its powers listed in Article I. Within these enumerated powers, the Commerce Clause gives Congress the power to “regulate interstate commerce.” The meaning of this phrase has been at the center of continuous controversy over the permissible scope of federal economic regulation since the

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85. U.S. CONST. art. I, § 8, cl. 3.

86. See Steven G. Calabresi, “A Government of Limited and Enumerated Powers”: *In Defense of United States v. Lopez*, 94 MICH. L. REV. 752, 752 (1995) (arguing that the Supreme Court decision limiting the federal government's power “mark[ed] a revolutionary and long overdue revival of the doctrine that the federal government is one of limited and enumerated powers”); Edward S. Corwin, *The Passing of Dual Federalism*, 36 VA. L. REV. 1, 11–12 (1950) (explaining the nineteenth century Supreme Court's interpretation of the doctrine of limited and enumerated powers and how it has waned over time).

Constitution was ratified.<sup>87</sup> Perhaps most controversially, during the *Lochner* court era near the turn of the twentieth century, the Supreme Court narrowly interpreted the Commerce Clause as excluding federal regulation over purely local economic activity.<sup>88</sup> Similarly, the Court expansively interpreted substantive due process guarantees and the liberty to contract.<sup>89</sup> As a result, the Court overturned Congressional statutes regulating workplace safety, minimum wage, maximum hours, prices, child labor, and other economic regulations, on the basis that those laws regulated purely intrastate activity that was beyond the reach of national regulation.

During the Great Depression, President Franklin D. Roosevelt pressured the Supreme Court—including with threats to pack the Court with sympathetic ideologues—to uphold the constitutionality of various New Deal economic programs that he had championed to alleviate economic suffering. After a series of split decisions, the swing member of the Court, Justice Roberts, eventually relented and tipped the balance, leading the Court to uphold the constitutionality of the same types of economic regulations it had previously struck down.<sup>90</sup> The Court affirmed its new jurisprudence in *United States v. Carolene Products Co.*,<sup>91</sup> where it declared

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87. For an argument that the meaning of the Commerce Clause was originally far narrower than how it is interpreted today, see Randy E. Barnett, *The Original Meaning of the Commerce Clause*, 68 U. CHI. L. REV. 101, 111–25 (2001) (drawing on various originalist sources). *But see* Adam Badawi, *Unceasing Animosities and the Public Tranquility: Political Market Failure and the Scope of the Commerce Power*, 91 CAL. L. REV. 1331, 1335–36 (2003) (arguing that the animating purpose behind the Commerce Clause was to centralize power in order to solve collective action problems and thus correct the failures of the Articles of Confederation).

88. *See, e.g.*, *Carter v. Carter Coal Co.*, 298 U.S. 238, 311 (1936) (striking down coal mining regulations); *Hammer v. Dagenhart*, 247 U.S. 251, 277 (1918) (striking down federal child labor law). *See generally* Henry Wolf Bikle, *The Commerce Power and Hammer v. Dagenhart*, 67 U. PA. L. REV. 21 (1919) (discussing and criticizing *Lochner* era Commerce Clause jurisprudence).

89. *See, e.g.*, *Adkins v. Children’s Hosp.*, 261 U.S. 525, 561–62 (1923) (striking down federal minimum wage legislation for women as unconstitutional infringement of liberty of contract); *Adair v. United States*, 208 U.S. 161, 180 (1908) (invalidating federal ban on “yellow dog” contracts that prevented workers from joining labor unions); *Lochner v. New York*, 198 U.S. 45, 64 (1905) (striking down a maximum working hours law).

90. *See, e.g.*, *Wickard v. Filburn*, 317 U.S. 111, 124 (1942) (upholding regulation of “noneconomic production that affect[s] interstate commerce”); *United States v. Darby*, 312 U.S. 100, 124–25 (1941) (upholding regulation of production of goods to be shipped across state lines); *Nat’l Labor Relations Bd. v. Jones & Laughlin Steel Corp.*, 301 U.S. 1, 30 (1937) (upholding congressional power to regulate intrastate unions). For a history of this “switch in time that saved nine,” and an argument that the switch actually effectuated a sort of constitutional amendment, see 1 BRUCE ACKERMAN, *WE THE PEOPLE: FOUNDATIONS* 268–69 (1991).

91. 304 U.S. 144 (1938).



that Congress has plenary constitutional authority over economic regulation, and that laws passed to regulate the economy are entitled to a presumption of constitutionality.<sup>92</sup> Since this jurisprudential shift, the Court has, with limited exceptions,<sup>93</sup> broadly interpreted the Commerce Clause to include all economic activity which has “substantial effects” on interstate commerce—a vast difference from the *Lochner* court era. The Court has even ruled that even purely local, non-economic activity, such as production of one’s own personal supply of agricultural goods—whether a farmer growing wheat or a medical marijuana patient growing her own plants at home—can be subject to regulation by the federal government, if, undertaken by many individuals, the activity would have substantial effects on interstate commerce in the aggregate.<sup>94</sup>

When Congress passed civil rights statutes in the 1960s prohibiting racial discrimination by private businesses, most pertinently the Civil Rights Act of 1964, legal challenges were brought claiming that these laws fell outside of Congress’s authority under Article I.<sup>95</sup> Although the Fourteenth Amendment, which was ratified to bring racial equality to the law after the Civil War, might have provided a constitutional justification for these laws, the Court had previously struck down similar civil rights laws on the grounds that the Amendment’s enforcement provisions only applied to state action and did not extend to private conduct.<sup>96</sup> Congress and the courts, therefore, adopted an alternative constitutional justification for the statutes based on the Court’s increasingly broad interpretation of the Commerce Clause. Congress made extensive factual findings regarding the impact of

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92. *Id.* at 147–48, 152.

93. *See, e.g.*, *Nat’l Fed’n of Indep. Bus. v. Sebelius*, 132 S.Ct. 2566, 2608 (2012) (Roberts, C.J.) (holding that federal health insurance mandate did not fall under congressional Commerce Clause powers); *United States v. Lopez*, 514 U.S. 549, 551 (1995) (striking down law regulating handguns near schools); *United States v. Morrison*, 529 U.S. 598, 601 (2000) (striking down portions of Violence Against Women Act).

94. *Gonzales v. Raich*, 545 U.S. 1, 32–33 (2005); *Wickard v. Filburn*, 317 U.S. 111, 132–33 (1942). The bounds of this theory were drawn in *Sebelius*, where a majority of the court concluded that the “non-activity” of not having insurance did not qualify as economic activity subject to federal government regulation under the Commerce Clause. *Sebelius*, 132 S.Ct. at 2587.

95. Besides falling outside of the Commerce Clause, the Act’s opponents argued that the law violated their due process rights under the Fifth and Fourteenth Amendments and their right not to be subjected to involuntary servitude under the Thirteenth Amendment, claims which were roundly rejected by the Supreme Court. For a history of these claims, see A. K. Sandoval-Strausz, *Travelers, Strangers, and Jim Crow: Law, Public Accommodations, and Civil Rights in America*, 23 L. & HIST. REV. 53 (2005).

96. *Civil Rights Cases*, 109 U.S. 3, 13–14 (1883).

racial discrimination on the economy in an effort to connect the Civil Rights Act to the Commerce Clause.<sup>97</sup>

The Court referenced these Congressional findings in the landmark case *Heart of Atlanta Motel v. United States*,<sup>98</sup> which held that a hotel's business impacted interstate commerce where the business was strategically located near several interstates and a majority of its clientele was from out-of-state. The Court noted that "the record of [the law's] passage through each house is replete with evidence of the burdens that discrimination by race or color places upon interstate commerce," and that this "voluminous testimony presents overwhelming evidence that discrimination by hotels and motels impedes interstate travel" by African Americans.<sup>99</sup> Consequently, the hotel's racially discriminatory practices could be regulated or banned by Congress.<sup>100</sup> The Court took this rationale further in *Katzenbach v. McClung*, holding that the antidiscrimination provisions of the Civil Rights Act were properly applied to a small, private barbeque restaurant in Birmingham, Alabama that engaged in few transactions across state lines.<sup>101</sup> The Court specifically cited Congressional findings that racial segregation artificially restricted the flow of trade by discouraging African Americans from frequenting segregated businesses, and evidence that segregation in restaurants had a "direct and highly restrictive effect upon interstate travel by Negroes."<sup>102</sup> The Court emphasized that although the restaurant's activities, taken in isolation, had a miniscule effect on interstate commerce, Congress has the authority to regulate local intrastate activities if there is a "rational basis" to believe that these activities substantially affect interstate commerce in the aggregate.<sup>103</sup>

Apart from criticisms that the strategy of construing the Civil Rights Act as economic regulation served to trivialize the profound moral imperative that actually motivated its passage,<sup>104</sup> the Court's decisions have mostly

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97. *Heart of Atlanta Motel v. United States*, 379 U.S. 241, 252 (1964).

98. *Id.* at 258–62.

99. *Id.* at 252–53.

100. *Id.* at 261–62.

101. *Katzenbach v. McClung*, 379 U.S. 294, 304–05 (1964).

102. *Id.* at 300.

103. *Id.* at 301 (noting that, although viewed in isolation, the volume of food purchased by the restaurant was "insignificant," that the restaurant's "own contribution to the demand . . . may be trivial by itself is not enough to remove him from the scope of federal regulation where, as here, his contribution, taken together with that of many others similarly situated, is far from trivial." (quoting *Wickard v. Filburn*, 317 U.S. 111, 127–28 (1941))).

104. See Paul Brest, *The Conscientious Legislator's Guide to Constitutional Interpretation*, 27 STAN. L. REV. 585, 591–92 (1975) (explaining in the context of the Civil Rights Act and its dubious reliance on the Commerce Clause that, "[e]ven accounting for motives, few exercises of

been met with a pragmatic sense of acceptance. Few argue that *Heart of Atlanta Motel* and *Katzenbach* were wrongly decided. People were generally willing to accept, or at least ignore, inconsistencies in judicial interpretations of the Commerce Clause and the tenuous characterization of racial discrimination bans as economic regulations because they approved of the societal benefits—economic programs widely perceived as crucial to alleviating suffering during the Great Depression, and laws ending private racial discrimination—that these rulings advanced.<sup>105</sup>

## 2. The Commerce Clause as a Tool for Federal Criminal Law

At the same time, the same broad definition of interstate commerce initially used to help African Americans through anti-discrimination laws has also enabled the creation of policies that have had a disproportionately negative impact on this same group. In other words, the same clause that provided an adjacent possible niche to benefit African Americans also provided the opportunity to hinder them. In particular, the Commerce Clause's jurisprudential expansion has been marked not only by legislation expanding civil rights, but also by the growing punitive police power of the federal government.<sup>106</sup>

Although criminal law was historically considered to be largely within the purview of the states, the past several decades have experienced an explosion of federal criminal law. It is difficult to overstate how dramatic this growth has been, or the staggering scope of federal criminal law that has resulted from this growth. There are currently an estimated 4,000 federal criminal laws on the books, criminalizing conduct ranging from the

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the article I powers are constitutionally controversial"). Brest noted that Professor Gerald Gunther urged the Department of Justice to base its justification of the Civil Rights Act on the 14th Amendment, not the Commerce Clause, stating that "[t]he aim of the proposed anti-discrimination legislation, I take it, is quite unrelated to any concern with national commerce in any substantive sense. It would, I think, pervert the meaning and purpose of the commerce clause to invoke it as the basis for this legislation." *Id.* at 592 (citation omitted).

105. For example, Ackerman claims that this jurisprudential shift was not only widely accepted, but that it heralded a change in the meaning of the Constitution itself. *See* ACKERMAN, *supra* note 90.

106. Brandon L. Bigelow, *The Commerce Clause and Criminal Law*, 41 B.C. L. REV. 913, 913 (2000) (arguing that "[t]he ongoing expansion of federal criminal law undermines the historical decentralization of criminal law in this country by usurping state authority in that area"); *see also* Thane Rehn, Note, *RICO and the Commerce Clause: A Reconsideration of the Scope of Federal Criminal Law*, 108 COLUM. L. REV. 1991, 1993–2005 (2008) (arguing that there is a tension between the expansion of federal criminal law and contracting Commerce Clause power in Supreme Court jurisprudence).

trivial, such as the sale of orchids without the proper papers or the purchase of lobsters without the correct containers, to the profound, such as capital murder.<sup>107</sup> According to attorney Harvey Silvergate, the average American commits three federal felonies per day.<sup>108</sup>

Congress's authority to pass these federal criminal laws has largely been constitutionally justified under the Commerce Clause.<sup>109</sup> The Court's expansive conception of interstate commerce has aided this growth.<sup>110</sup> Of particular note is the passage of the Controlled Substances Act of 1970

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107. Alex Kozinski & Misha Tseytlin, *You're (Probably) a Federal Criminal*, in IN THE NAME OF JUSTICE 44–45 (Timothy Lynch ed., 2009) (noting that “most Americans are criminals, and don't know it, or suspect [that] they are but believe they'll never get prosecuted”); JOHN BAKER, FEDERALIST SOCIETY FOR LAW AND PUBLIC POLICY, MEASURING THE EXPLOSIVE GROWTH OF FEDERAL CRIME LEGISLATION 3 (2004); Brian W. Walsh, *Criminalizing Everyone*, THE WASHINGTON TIMES (Oct. 5, 2009), <http://www.washingtontimes.com/news/2009/oct/05/criminalizing-everyone/?page=all>; see also DOUGLAS HUSAK, OVERCRIMINALIZATION: THE LIMITS OF THE CRIMINAL LAW 35 (2008).

108. See generally HARVEY SILVERGLATE, THREE FELONIES A DAY: HOW THE FEDS TARGET THE INNOCENT (2011).

109. Although murder has traditionally been punished by the states, for example, federal murder charges may be brought where the circumstances of the crime have some nexus to interstate commerce. See e.g., 18 U.S.C. § 1111 (2012) (providing for federal punishment of first and second degree murder); 18 U.S.C. § 3591 (2012) (providing for capital punishment for certain federal crimes). Federal murder statutes, which potentially carry the death penalty, may be used to circumvent state laws that prohibit capital punishment.

110. As an example, take the Sex Offender Registration and Notification Act, passed in 2006. 42 U.S.C. §§ 16911–16929 (2012). The law requires, under penalty of a mandatory minimum five-year prison sentence, that all convicted sex offenders must register in the state where they live, work, and study and keep their registration up-to-date, regardless of whether they ever travel within interstate commerce. 18 U.S.C. § 2250(a)(2)(A) (2006); 42 U.S.C. § 16913(a) (2012). The law has been challenged on the basis that such a requirement may apply to purely intrastate local behavior and therefore can only be within the purview of state governments, not Congress. The registration requirement has been uniformly upheld by the federal circuit courts under the Commerce Clause, which permits enforcement of the law when offenders travel interstate, and the Necessary and Proper Clause as ancillary authority to the Commerce Clause, allowing enforcement of the registration requirements even where offenders do not travel interstate. See, e.g., *United States v. Coleman*, 675 F.3d 615, 617 (6th Cir. 2012); *United States v. Guzman*, 591 F.3d 83, 89–91 (2d Cir. 2010); *United States v. Whaley*, 577 F.3d 254, 258 (5th Cir. 2009); *United States v. Gould*, 568 F.3d 459, 470–75 (4th Cir. 2009); *United States v. Ambert*, 561 F.3d 1202, 1210–12 (11th Cir. 2009); *United States v. Lawrance*, 548 F.3d 1329, 1337 (10th Cir. 2008); *United States v. May*, 535 F.3d 912, 921–22 (8th Cir. 2008), *abrogated by Reynolds v. United States*, 132 S. Ct. 975, 980 (2012). The Second Circuit, however, has questioned the validity of courts' prior rulings after the Supreme Court's ruling that a federal health insurance mandates exceeded Congress's authority under the Commerce Clause in *National Federation of Independent Businesses v. Sebelius*. *Nat'l Fed'n of Indep. Bus. v. Sebelius*, 132 S.Ct. 2566 (2012); see *United States v. Robbins*, 729 F.3d 131, 135–36 (2d Cir. 2013).

(CSA),<sup>111</sup> just six years after the heralded passage of the Civil Rights Act.<sup>112</sup> The CSA established five regulatory drug schedules, using criteria such as addictiveness and medical value,<sup>113</sup> although the application of these criteria has been controversial.<sup>114</sup> Since the passage of the CSA, Congress has added various other drug offenses to the United States Code, including mandatory minimum sentences for possession and sale.<sup>115</sup> The Anti-Drug Abuse Acts of 1986 and 1988,<sup>116</sup> for example, contained a provision, notorious for its racially disparate impact, establishing the hundred to one quantity ratio between crack-cocaine and powder cocaine that triggered mandatory minimum sentence.<sup>117</sup> Congress has also enacted various fines for drug offenders<sup>118</sup> and sentencing enhancements for the use of weapons during drug trafficking or for being a drug felon in possession.<sup>119</sup> State anti-drug

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111. Controlled Substances Act of 1970, 21 U.S.C. § 801 (1973).

112. Some scholars argue that the growth of federal criminal law in the wake of the Civil Rights Movement was no coincidence, but in fact, that politicians, especially in the South, began their “tough on crime” campaign to appeal to voters that were deeply unsettled by racial integration. Sara Sun Beale, *What’s Law Got to Do with It?: The Political, Social, Psychological and Other Non-Legal Factors Influencing the Development of (Federal) Criminal Law*, 1 BUFF. CRIM. L. REV. 23, 40 (1997); Ian F. Haney López, *Post-Racial Racism: Racial Stratification and Mass Incarceration in the Age of Obama*, 98 CALIF. L. REV. 1023, 1033 (2010); see also David A. Sklansky, *Cocaine, Race, and Equal Protection*, 47 STAN. L. REV. 1283, 1292 (1995) (describing the historical pattern where public concern over a given drug has been “strongly associated in the white public mind with a particular racial minority”).

113. 21 U.S.C. § 812 (2006) (listing the various schedules of drugs).

114. *E.g.*, *Ams. for Safe Access v. DEA*, 706 F.3d 438, 439 (D.C. Cir. 2013) (acknowledging the “serious debate in the United States over the efficacy of marijuana for medicinal uses” but rejecting the petition to reschedule marijuana); NATIONAL COMMISSION ON MARIHUANA AND DRUG ABUSE, *DRUG USE IN AMERICA: PROBLEM IN PERSPECTIVE*, 2D REP. 13 (1973) (“[D]rug abuse . . . is an eclectic concept having only one uniform connotation: societal disapproval. . . . The term has no functional utility and has become no more than an arbitrary codeword for that drug use which is presently considered wrong.”).

115. See generally 21 U.S.C. § 841(b) (2010); U.S. SENTENCING COMM’N, SPECIAL REPORT TO THE CONGRESS: MANDATORY MINIMUM PENALTIES IN THE FEDERAL CRIMINAL JUSTICE SYSTEM 11–12 tbl.1 (1991) (finding that, of the federal statutes imposing mandatory minimum sentences, the three most commonly used are all aimed at drug offenses); Erik Luna & Paul G. Cassell, *Mandatory Minimalism*, 32 CARDOZO L. REV. 1, 17 (2010).

116. Anti-Drug Abuse Act of 1986, Pub. L. No. 99-570, 100 Stat. 3207 (codified as amended at 21 U.S.C. § 841 (2010)); Anti-Drug Abuse Act of 1988, Pub. L. No. 100-690, 102 Stat. 4181.

117. For an account of how the ratio was created largely in response to political pressures, see Sklansky, *supra* note 112, at 1286 (describing the legislative history and the arms race for congressmen to appear punitive under the pressure of upcoming midterm elections).

118. 21 U.S.C. § 842(c)(1)(A) (2014) (civil fines); § 844(a) (2010) (fines for simple possession); § 881 (2002) (forfeiture).

119. *E.g.*, 18 U.S.C. § 922(g) (felon in possession statute); 18 U.S.C. § 924 (c)(1)(A) (use of a weapon during a federal drug crime). See generally Sara Sun Beale, *The Unintended*

laws have also proliferated.<sup>120</sup> These laws are enforced by a multifaceted and extensive network of federal and state agencies, including the Drug Enforcement Administration (DEA), the Federal Bureau of Investigation (FBI), the Central Intelligence Agency (CIA), and hundreds of others.<sup>121</sup>

This dramatic expansion of federal drug laws was, like the civil rights statutes, premised on Congress's authority to regulate interstate commerce. Although the international drug trade's relation to interstate commerce may seem obvious enough, federal drug statutes have also crept into regulating increasingly local activity, based on expansive judicial interpretations of the Commerce Clause. The CSA not only prohibits the manufacture, transport, sale, and import of certain substances, but also their possession and use by individuals.<sup>122</sup> Similar to the application of the Civil Rights Act to small local restaurants, the constitutionality of the CSA has been upheld not only as to interstate trafficking operations, but also to local small-time dealers and individual users.<sup>123</sup> In *Gonzales v. Raich*, the Court held that the CSA was constitutional as applied to an individual user of home-grown marijuana for medical, not commercial, purposes.<sup>124</sup> The Court explained that

[o]ur case law firmly establishes Congress' power to regulate purely local activities that are part of an economic "class of activities" that have a substantial effect on interstate

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*Consequences of Enhancing Gun Penalties: Shooting Down the Commerce Clause and Arming Federal Prosecutors*, 51 DUKE L.J. 1641 (2002) (explaining how gun-related enhancements have increased prosecutorial power).

120. See, e.g., Wayne L. Mowery, Jr., *Stepping up the War on Drugs: Prosecution and Enhanced Sentences for Conspiracies to Possess or Distribute Drugs Under State and Federal Schoolyard Statutes*, 101 DICK. L. REV. 703, 704 (1997).

121. See *About CIA*, CENTRAL INTELLIGENCE AGENCY, <https://www.cia.gov/about-cia/faqs> (last updated Mar. 23, 2013); *A Brief History of the FBI*, FEDERAL BUREAU OF INVESTIGATION, <https://www.fbi.gov/about-us/history/brief-history/brief-history> (last visited Oct. 16, 2015); *DEA History*, DRUG ENFORCEMENT ADMINISTRATION, <http://www.justice.gov/dea/about/history.shtml> (last visited Oct. 16, 2015) (noting that DEA has grown from 1,470 agents and an annual budget of 75 million in 1973 to more than 5,000 special agents and a budget of over 2 billion dollars today); *Foreign Office Locations*, DRUG ENFORCEMENT ADMINISTRATION, <http://www.justice.gov/dea/about/foreignoffices.shtml> (last visited Oct. 16, 2015).

122. See 21 U.S.C. § 841(a)(1) (2010) ("[I]t shall be unlawful for any person knowingly or intentionally . . . to manufacture, distribute, or dispense, or possess with intent to manufacture, distribute, or dispense, a controlled substance."); *Gonzales v. Raich*, 545 U.S. 1, 22 (2005)

123. *Katzenbach v. McClung*, 379 U.S. 294, 302 (1964) ("This Court has held time and again that this power extends to activities of retail establishments, including restaurants, which directly or indirectly burden or obstruct interstate commerce.")

124. *Gonzales v. Raich*, 545 U.S. 1, 19 (2005).

commerce. . . . When Congress decides that the “total incidence” of a practice poses a threat to a national market, it may regulate the entire class.<sup>125</sup>

Thus, even if the marijuana grower’s purely local activity had negligible effect on interstate commerce, Congress could nevertheless regulate the activity if it substantially affected commerce in the aggregate. For this proposition, the Court relied in particular on *Wickard v. Filburn*,<sup>126</sup> where it upheld a federal agricultural law that prohibited farmers from growing quantities of wheat above a certain threshold, even if the wheat was intended solely for personal use and not for sale. The Court reasoned that, as in *Wickard*, because the accumulation of the activities of thousands of marijuana growers would significantly impact the illegal drug market, Congress’s reach under the Commerce Clause could extend to the conduct of a single grower.<sup>127</sup> The Court further emphasized the “modest” nature of its task, noting that under its caselaw, it was unnecessary for the Court to actually determine “whether respondents’ activities, taken in the aggregate, substantially affect interstate commerce in fact, but only whether a ‘rational basis’ exists” for Congress to so conclude.<sup>128</sup>

### 3. Unintended Consequences for African Americans

The consequences of these drug laws have radically altered the criminal justice system. The United States’ prison population reached 2.3 million in 2010, including many thousands of non-violent drug offenders.<sup>129</sup> When parole and probation are included, over seven million American citizens live under the supervision of the criminal justice system.<sup>130</sup> Although the rise in prisoners cannot be attributed entirely to the War on Drugs, as punitive laws and sentencing policies have increased across the board, arrest

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125. *Id.* at 17.

126. 317 U.S. 111, 128–29 (1942).

127. *Gonzales*, 545 U.S. at 19 (“In both [*Wickard* and *Raich*], the regulation is squarely within Congress’ commerce power because production of the commodity meant for home consumption, be it wheat or marijuana, has a substantial effect on supply and demand in the national market for that commodity.”).

128. *Id.* at 22 (citing, among other cases, *Katzenbach v. McClung*, 379 U.S. 294, 299–301 (1964); *Heart of Atlanta Motel, Inc. v. United States*, 379 U.S. 241, 252–53 (1964)).

129. John Schmitt, Kris Warner & Sarika Gupta, *The High Budgetary Cost of Incarceration*, CTR. FOR ECON. AND POL’Y RES. 2 (2010), <http://www.cepr.net/documents/publications/incarceration-2010-06.pdf>.

130. Haney López, *supra* note 112, at 1029.

and prison compositions show that drug laws have greatly contributed.<sup>131</sup> Federal judge Frederic Block has noted that about half of the roughly 220,000 criminals in the federal prisons are there for drug-related offenses, consuming around half of the \$6.8 billion of the Bureau of Prisons budget.<sup>132</sup>

Further, it is well-established that the brunt of the War on Drugs has been disproportionately borne by African Americans, who are prosecuted far in excess of whites for drug crimes despite the fact that rates of drug use are similar among these respective groups. A 2013 study by the American Civil Liberties Union found that a black person in the United States was 3.73 times more likely to be arrested for marijuana possession than a white person, even though both races have similar rates of marijuana use.<sup>133</sup> The disparity was highest in Iowa, where black people were arrested for marijuana possession at a rate 8.3 times higher than white people, despite similar rates of usage for these groups.<sup>134</sup> A 2003 report found that, although black Americans then constituted approximately 12 percent of our country's population and 13 percent of drug users, they accounted for 33 percent of all drug-related arrests, 62 percent of drug-related convictions and 70 percent of drug-related incarcerations.<sup>135</sup> Harsh federal crack-cocaine penalties have produced a particularly egregious disparity, as ninety percent of federal crack cocaine defendants are black, even though whites and Hispanics use the drug more frequently.<sup>136</sup> Despite these sobering statistics,

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131. According to the Center for Economic and Policy Research, non-violent drug offenders constitute one quarter of the prison population. Schmitt et al., *supra* note 129, at 8; *see also* United States v. Haynes, 557 F. Supp. 2d 200, 203 (D. Mass. 2008) (“Courts may no longer ignore the possibility that the mass incarceration of nonviolent drug offenders has disrupted families and communities and undermined their ability to self-regulate, without necessarily deterring the next generation of young men from committing the same crimes.”).

132. FREDERIC BLOCK, *DISROBED: AN INSIDE LOOK AT THE LIFE AND WORK OF A FEDERAL TRIAL JUDGE* 220 (2012).

133. *The War on Marijuana in Black and White*, ACLU 1, 4 (2013), <https://www.aclu.org/files/assets/061413-mj-report-rfs-rel4.pdf>.

134. *Id.* at 49 tbl.6.

135. Kathleen R. Sandy, *The Discrimination Inherent in America's Drug War: Hidden Racism Revealed by Examining the Hysteria Over Crack*, 54 ALA. L. REV. 665, 671 (2003).

136. Deborah J. Vagins & Jesselyn McCurdy, *Cracks in the System: Twenty Years of the Unjust Federal Crack Cocaine Law*, ACLU 1, i (2006), [https://www.aclu.org/files/pdfs/drugpolicy/cracksinsystem\\_20061025.pdf](https://www.aclu.org/files/pdfs/drugpolicy/cracksinsystem_20061025.pdf); *see also* United States v. Armstrong, 517 U.S. 456, 459 (1996) (noting plaintiffs' allegation that “in every one of the 24 § 841 or § 846 cases closed by the office during 1991, the defendant was black”); United States v. Clary, 846 F. Supp. 768, 770 (E.D. Mo. 1994) (“[T]his one provision, the crack statute, has been directly responsible for incarcerating nearly an entire generation of young black American men for very long periods, usually during the most productive time of their lives.”).



the Supreme Court rejected a challenge that African Americans have been selectively prosecuted under these laws in violation of their equal protection rights, and denied the ability to proceed to discovery against the U.S. Attorney's Office.<sup>137</sup> The Court reasoned that, despite the fact that every crack-cocaine prosecution brought in the relevant jurisdiction was against a black person, the defendants did not demonstrate that similarly situated whites who had committed the same crimes were not being prosecuted.<sup>138</sup> Therefore, the defendants could not prove that federal prosecutorial policy "had a discriminatory effect and that it was motivated by a discriminatory purpose."<sup>139</sup>

Despite the Court's ruling in *Armstrong*, there is vigorous debate over the question of whether the racially disparate impact of drug laws is the product of intentional racism.<sup>140</sup> There is little question that individual racism plays at least some role, as recent studies of racial profiling have condemned law enforcement officers for targeting African Americans for on-the-street questioning that would often result in arrests for petty drug crimes.<sup>141</sup> At the same time, African Americans have also been the victims of profound structural forces, including laws that created incentives for police and prosecutors to target poor and minority groups.<sup>142</sup> These forces

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137. *Armstrong*, 517 U.S. at 471.

138. *Id.* at 470–71.

139. *Id.* at 465.

140. Compare Sklansky, *supra* note 112, at 1308 ("The federal crack penalties provide a paradigmatic case of unconscious racism."), and Nkechi Taifa, *Reflections from the Front Lines*, 10 FED. SENT'G REP. 200, 200 (1998) (using crack penalties as an example of how "the criminal process—from arrest to prosecution to sentencing—is steeped in a racism which has, in effect, been institutionalized"), with RANDALL KENNEDY, *RACE, CRIME, AND THE LAW* 301 (1997) (disputing the view that the crack cocaine mandatory minimum sentences were racist, given that about half of the National Black Caucus supported the Anti-Drug Abuse Act), and William J. Stuntz, *Race, Class, and Drugs*, 98 COLUM. L. REV. 1795, 1798 (1998) (noting that, given "massive gains in black political power over big-city governments" and less racism among white police officers, prosecutors, judges, and politicians, "[a] rise in systemic racism coincident with a decline in the level of racism of those who populate the system seems strange, even preposterous"). See generally MICHELLE ALEXANDER, *THE NEW JIM CROW: MASS INCARCERATION IN THE AGE OF COLORBLINDNESS* (2010).

141. See Angela J. Davis, *Race, Cops, and Traffic Stops*, 51 U. MIAMI L. REV. 425, 431–32 (1997).

142. Roger Koppl & Meghan Sacks, *The Criminal Justice System Creates Incentives for False Convictions*, 32 CRIM. JUST. ETHICS 126, 135, 139, 147 (2013) (Koppl and Sacks show that in the U.S. police, prosecutors, and forensic scientists in publicly-funded crime labs have, typically, an incentive to gain convictions independently of the guilt or innocence of the convicted person. In several states, for example, state law establishes that public crime labs be funded in part per conviction. Such incentives to convict are disproportionately harmful to the poor, especially poor black and Hispanic persons).

have coalesced to form an emergent spontaneous order not designed or intended by the individuals within the system.

First, class differences in the structure of drug transactions tend to draw law enforcement to the open-air drug markets of the lower classes over the less-penetrable indoor markets of the upper class. Professor William Stuntz argued that the incentives underlying police enforcement efforts against consensual illicit trades, such as drug use, encourage police to target such use among the lower classes, which also tend to be disproportionately minorities.<sup>143</sup> In particular, drug markets in poor communities are often located in street markets or fixed locations, whereas in rich communities they are more private.<sup>144</sup> Additionally, the violence associated with the drug trade is primarily concentrated in urban black communities, where drug traders could operate in street-market fashion.<sup>145</sup> Due to the structure of drug markets, harsh drug penalties encourage police officers to intervene much more aggressively in these communities.<sup>146</sup>

This incentive is further heightened by Fourth Amendment doctrines that elevate privacy interests in the home over public spaces with the effect of providing greater protection to the wealthy.<sup>147</sup> As Stuntz has explained, Fourth Amendment jurisprudence places higher protection on private homes and their curtilage than on cars and public spaces.<sup>148</sup> Given the structure of drug transactions, which tend to occur in homes for wealthier people, and in public places for poorer people, Fourth Amendment law has inadvertently imposed higher costs on police investigating wealthier drug dealers, driving them to investigate poorer dealers who have less property and therefore tend to receive less protection under the Fourth Amendment.<sup>149</sup>

The disproportionate effects on poor African Americans have further been exacerbated by several features of the federal drug statutes enacted by Congress. Regarding crack-cocaine, for example, the threshold necessary to trigger the five-year mandatory minimum sentence for possession was initially so low—five grams, or the equivalent of a few sugar packets,<sup>150</sup>

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143. Stuntz, *supra* note 140, at 1799.

144. *Id.* at 1804.

145. *Id.* at 1813.

146. *Id.* at 1799 (“The cost of apprehension pushes in the same direction: It is easier, often a great deal easier, to catch and punish sellers and buyers in lower-class markets than it is to catch and punish their higher-end counterparts.”).

147. *Id.* at 1821–24.

148. *Id.* at 1823.

149. *Id.* at 1821–24.

150. *Federal Crack Cocaine Sentencing*, THE SENTENCING PROJECT 1, 2 (2010), [http://sentencingproject.org/doc/publications/dp\\_CrackBriefingSheet.pdf](http://sentencingproject.org/doc/publications/dp_CrackBriefingSheet.pdf).

until the law was changed in 2010<sup>151</sup>—that it facilitated police focus on small-time crack users, which were easier to catch and subdue than dangerous high-level dealers. The goal of the Anti-Drug Abuse Act that established these mandatory minimums was to target high level drug dealers bringing crack cocaine into black communities.<sup>152</sup> The nature of crack cocaine, however, which is usually cooked from powder by low-level users, meant that small time dealers and mere users ended up being targeted under the law rather than high-level dealers.<sup>153</sup> The racial disparity produced by the crack-cocaine mandatory minimums was so enormous that it motivated Congress to revise the law by reducing the disparity in the amounts necessary to trigger the mandatory minimums between crack cocaine and powder cocaine.<sup>154</sup> Although crack cocaine is the most extreme example, all of the drugs targeted in the CSA have mandatory minimum sentences triggered by amounts sufficiently small as to ensnare mere users of the drug and to subject them to lengthy sentences in federal prison.<sup>155</sup>

Besides influencing the actions of police, mandatory minimums have also provided prosecutors with greater leverage in extracting plea bargains, thus increasing their power relative to defendants and judges.<sup>156</sup> These mandatory minimums provided such stark thresholds, that when faced with a possible five or ten year sentence, most defendants would accept a plea agreement rather than risk conviction at trial.<sup>157</sup> The pressure to plead guilty is further amplified by federal conspiracy laws, which allow prosecutors to pin the amount of drugs in the entire “conspiracy” on any given defendant

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151. See Fair Sentencing Act of 2010, Pub. L. No. 111-220, 124 Stat. 2372 (reduced the ratio between powder and crack cocaine of the quantity necessary to trigger the mandatory minimum from 100 to 1 to 18 to 1); Office of the Deputy Attorney General, U.S. Dep’t of Justice, Memorandum on The Fair Sentencing Act of 2010 (Aug. 5, 2010), <http://www.justice.gov/sites/default/files/oip/legacy/2014/07/23/fair-sentencing-act-memo.pdf>

152. See H.R. REP. NO. 99-845, pt. 1, at 11–12 (1986) (defining serious and major traffickers).

153. See Vagins & McCurdy, *supra* note 136, at ii.

154. *Id.*

155. See generally Anti-Drug Abuse Act of 1986, Pub. L. No. 99-570, 100 Stat. 3207 (codified as amended at 21 U.S.C. § 841 (2006)).

156. See generally *Mandatory Minimums and Unintended Consequences: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Sec. of the H. Comm. on the Judiciary*, 111th Cong. 34–66 (2009) (statement of Hon. Julie E. Carnes, Chair, Criminal Law Comm. of the Judicial Conf. of the U.S.); see Luna & Cassell, *supra* note 115, at 14; John S. Martin, Jr., *Why Mandatory Minimums Make No Sense*, 18 NOTRE DAME J.L. ETHICS & PUB. POL’Y 311, 313 (2004).

157. Luna & Cassell, *supra* note 115, at 12. Drug mandatory minimums have been essential in producing the ninety-five percent plea bargain rate in the federal court system.

within the conspiracy, no matter how little their involvement.<sup>158</sup> One of the phenomena that emerged from co-opting conspiracy doctrine for this purpose was the infamous “girlfriend problem,” where girlfriends of crack dealers would get caught delivering a package or using drug money to feed themselves and their children.<sup>159</sup> Because they had provided material support to the conspiracy or benefitted from it, they would be eligible for lengthy federal sentences determined by the amount of drugs in the entire conspiracy.<sup>160</sup>

These are just a few of the confluence of factors that have contributed to the perfect storm of racial inequality resulting from federal drug laws. Ultimately, the underlying legal authority for this comprehensive federal scheme of anti-drug laws resides in Congress’s Commerce Clause powers. Thus, the same adjacent possible niche—the Commerce Clause—that was used to empower African Americans through civil rights statutes was later used to disempower them through the War on Drugs. The racial disparity was magnified as these laws cascaded through the complex system of various adaptive agents using the laws for their own ends, resulting in an emergent institutional racism unplanned and by individuals within the system.

### *B. Separation of Powers and Procedural Due Process*

The use of law for novel purposes occurs not only at the level of individual statute, but also at the level of government structure. Not only can a single constitutional provision have myriad uses in changing environments, it can also be manipulated so as to generate the opposite effect of the intent behind the provision. The concept of separation of powers, enforced by checks and balances between government branches, was originally intended to constrain the size of government.<sup>161</sup> Madison argued in Federalist 51 that the “separate and distinct exercise of the

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158. See *United States v. Monroe*, 73 F.3d 129, 132 (7th Cir. 1995) (holding defendant liable in crack-cocaine trafficking conspiracy even though he did not know the other members of the conspiracy).

159. See Kemba Smith, *My Life Saved by Reprieve of 24-year Sentence for Crack*, CNN (Dec. 22, 2010, 9:21 AM), <http://www.cnn.com/2010/OPINION/12/22/pradia.sentencing.drug.reform/> (explaining that she “went to prison for being complicit in [her] abusive boyfriend’s crack cocaine trafficking operation. Prosecutors in the case acknowledged that [she] never sold, handled or used any drugs”).

160. *Id.*

161. FEDERALIST NO. 51, at 348 (James Madison) (Jacob E. Cooke ed., 1961).

different powers of government,” was “to a certain extent . . . admitted on all hands to be essential to the preservation of liberty.”<sup>162</sup> Madison contended that the foundation for this separation of powers required “that each department should have a will of its own,”<sup>163</sup> and advocated for designing institutional incentives so that each branch could constrain the others, thereby preventing any individual branch from accumulating undue power. As he explained, “[t]he great security against a gradual concentration of the several powers in the same department, consists in giving to those who administer each department the necessary constitutional means and personal motives to resist encroachments of the others.”<sup>164</sup> Succinctly summarizing his strategy that “[a]mbition must be made to counteract ambition,” he predicted that “[t]he different governments will control each other, at the same time that each will be controlled by itself.”<sup>165</sup>

Yet, the reality has belied Madison’s predictions. The three branches have tended to enable each other’s growth over time, and, in the aggregate, the growth of government as a whole. This pattern appears to hold even where the relationship between the branches is adversarial rather than cooperative. In particular, the evolution of criminal procedure doctrines reveals infighting between government branches that, nonetheless, resulted in an overall expansion of government power relative to the individual. Judicial opinions strengthening procedural due process rights were initially intended to preserve individual liberty, but have prompted the Legislature to respond by enacting broader, more specific, and more complex criminal statutes that regulate human social life in ever-more stringent ways.<sup>166</sup> Therefore, these applications of procedural due process have contributed to the enactment of substantive restrictions by the other branches of government to evade these procedural protections. This proliferation of criminal laws has not only subverted the judges’ intent to strengthen procedural due process rights, causing individual liberties to be usurped by government power, but in doing so has undermined the strength of the judicial relative to the legislative branch.

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162. *Id.*

163. *Id.*

164. *Id.* at 349.

165. *Id.* at 351.

166. Samuel W. Buell, *The Upside of Overbreadth*, 83 N.Y.U. L. REV. 1491, 1494 (2008).

### 1. Judicial Expansion of Procedural Due Process

The concept of procedural due process, found in the Fifth and Fourteenth Amendments,<sup>167</sup> was originally conceived to prevent the arbitrary governmental exercise of power.<sup>168</sup> The Founders created constitutional procedural safeguards because arbitrary exercise of power by the British in the Colonial era mainly occurred through unreasonable searches and seizures and deprivation of property without democratic procedures.<sup>169</sup> Even after the transition to democracy, Americans feared these sorts of infringements. As jurist William Blackstone explained:

To bereave a man of life or by violence to confiscate his estate, without accusation or trial, would be so gross and notorious an act of despotism as must at once convey the alarm of tyranny throughout the whole nation; but confinement of the person, by secretly hurrying him to jail, where his sufferings are unknown or forgotten, is a less public, a less striking, and therefore a more dangerous engine of arbitrary government.<sup>170</sup>

Accordingly, the Bill of Rights ensured that a set process would be required before depriving criminal defendants of fundamental rights such as life, liberty, or property. This process was intended to be stringent and ardently favor the accused.<sup>171</sup> The requirements of procedural due process

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167. U.S. CONST. amend. V, cl. 4 (“No person shall be . . . deprived of life, liberty, or property, without due process of law . . . .”); U.S. CONST. amend. XIV, § 1, cl. 3 (“[N]or shall any State deprive any person of life, liberty, or property, without due process of law . . . .”).

168. *See Daniels v. Williams*, 474 U.S. 327, 331–32 (1986) (“[B]y barring certain government actions regardless of the fairness of the procedures used to implement them, . . . [the Fifth Amendment due process clause] serves to prevent governmental power from being ‘used for purposes of oppression.’”) (quoting *Den ex dem. Murray v. Hoboken Land & Improvement Co.*, 59 U.S. 272, 277 (1856)); *Hurtado v. California*, 110 U.S. 516, 527 (1884) (explaining that due process clause was “intended to secure the individual from the arbitrary exercise of the powers of government.”) (quoting *Bank of Columbia v. Okely*, 17 U.S. 235, 244 (1819)).

169. *See Boyd v. United States*, 116 U.S. 616, 625 (1886) (describing growing anger about writs of assistance as “the most prominent event which inaugurated the resistance of the colonies to the oppressions of the mother country”).

170. 1 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND 136 (1765); *see also* FEDERALIST NO. 51, at 349 (James Madison) (Jacob E. Cooke ed., 1961) (“In framing a government which is to be administered by men over men, the great difficulty lies in this: You must first enable the government to controul the governed; and in the next place oblige it to controul itself. A dependence on the people is, no doubt, the primary controul on government; but experience has taught mankind necessity of auxiliary precautions.”).

171. *See Escobedo v. State of Illinois*, 378 U.S. 478, 488 (1964) (“Our Constitution . . . strikes the balance in favor of the right[s] of the accused . . . .”); *see also* 4 WILLIAM

for criminal defendants, either explicitly stated in the Constitution or interpreted by courts, include laws defining the offense,<sup>172</sup> notice of the accusation<sup>173</sup> and the opportunity to defend against it,<sup>174</sup> and trial before an impartial jury.<sup>175</sup> These mechanisms were meant to contribute to the rule of law, the ultimate objective for America's burgeoning democracy.

## 2. Unintended Consequences for Criminal Defendants

Judicial strengthening of procedural due process, however, has produced unintended consequences that have undermined the judges' intent.<sup>176</sup> First, principles of statutory interpretation meant to protect criminal defendants have incentivized legislatures to enact overly broad criminal laws. The overarching interpretative principle for criminal statutes is the legality principle, that crimes must be codified in statutes so that proscribed conduct can be clearly and adequately declared in advance.<sup>177</sup> The rationale for the legality principle is that due process entitles people to fair notice of what constitutes a crime.<sup>178</sup> More specific rules are nested within the legality principle, such as the principle of clarity. Vague statutes, where the meaning of a given word is unclear, and ambiguous statutes, which lend themselves to multiple interpretations, undermine fair notice for defendants

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BLACKSTONE, COMMENTARIES 358 ("Better that ten guilty persons escape than that one innocent suffer.").

172. See *Bordenkircher v. Hayes*, 434 U.S. 357, 363 (1978) ("To punish a person because he has done what the law plainly allows him to do is a due process violation of the most basic sort. . . .").

173. See *United States v. Cruikshank*, 92 U.S. 542, 561 (1876) (requiring an indictment in criminal prosecutions).

174. U.S. CONST. amend. VI ("[I]n all criminal prosecutions, the accused shall enjoy the right . . . to be confronted with the witnesses against him . . .").

175. *Id.* ("[I]n all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury . . .").

176. See William J. Stuntz, *The Pathological Politics of Criminal Law*, 100 MICH. L. REV. 505, 506 (2001) (noting that as a result of procedural due process, "criminal law does not drive criminal punishment. It would be closer to the truth to say that criminal punishment drives criminal law"); see also Nuno Garoupa & Matteo Rizzolli, *The Brady Rule May Hurt the Innocent*, 13(1) AM. L. & ECON. REV. 168, 168 (2011) ("[I]f forced to reveal exculpatory information, the prosecutor might not look for that information in the first place, and in turn this could harm the innocent . . .").

177. *Papachristou v. City of Jacksonville*, 405 U.S. 156, 162 (1972) (quoting *Lanzetta v. New Jersey*, 306 U.S. 451, 453 (1939)) ("Living under a rule of law entails various suppositions, one of which is that '[all persons] are entitled to be informed as to what the State commands or forbids.'").

178. *Id.* at 166.

and require judicial interpretation that proliferates common law crimes.<sup>179</sup> Additionally, the principle of lenity requires that ambiguities in criminal statutes be resolved in favor of the defendant.<sup>180</sup>

The unintended consequence of these pro-defendant principles of statutory interpretation, however, is that they have incentivized legislatures to enact overly-broad criminal laws in response.<sup>181</sup> Instead of forcing legislatures to carefully consider which conduct to prohibit and to exactly word statutes accordingly, they have enacted laws that clearly and unambiguously proscribe a much larger range of conduct than necessary to correct the “wrongdoing or harm-creation that the rule[s] [are] designed to address.”<sup>182</sup> Otherwise, narrowly-worded statutes could give defendants loopholes to exploit.<sup>183</sup> For example, if a statute specifically proscribes a list of items, such as types of weapons, then a smart criminal could theoretically evade the purpose of law by utilizing a slightly different item than what is listed. Additionally, sweeping statutes are often simpler to write, yet can still maintain specificity, thereby enabling legislatures to avoid the vagueness problem;<sup>184</sup> increasing the number of nuances and caveats in a statute in order to make its application narrower presents more questions of interpretation.<sup>185</sup> Overly broad statutes may have been a problem regardless of procedural due process requirements. However, due process principles exacerbate the problem by raising the stakes involved for the legislative branch: when faced with the risk that a less extensive proscription might be invalidated for ambiguity or exploited by defendants, legislatures may opt for overbreadth.

Second, the “due process explosion” in Supreme Court jurisprudence of the 1960s and 70s had the unintended effect of incentivizing Congress to pass overreaching criminal statutes.<sup>186</sup> During this era, the Court declared

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179. *City of Chicago v. Morales*, 527 U.S. 41, 41–42 (1999).

180. *Id.*

181. Buell, *supra* note 166, at 1494.

182. *Id.* at 1492; *see also id.* at 1528 (explaining that RICO was “[e]nacted to deal with a specific problem . . . [but] quickly became, after a period of little use, an all-purpose tool for dealing with professional criminals in federal court”).

183. *See id.* at 1503 (designing a hypothetical ban on dangerous dogs to show that “[e]ach update to the legal scheme may only lead to new innovations in breeding and training designed to produce equally harmful dogs that do not fit the law’s definitions”).

184. Stuntz, *supra* note 176, at 559 (noting that “legislatures can achieve breadth and specificity at the same time”).

185. *See People v. Tylkoff*, 212 N.Y. 197, 201 (1914) (commenting that disorderly conduct statutes are “obviously one of those ‘dragnet’ laws designed to cover newly invented crimes, or existing crimes that cannot be readily classified or defined”).

186. Henry J. Friendly, *Some Kind of Hearing*, 123 U. PA. L. REV. 1267, 1268 (1975).



that the Sixth Amendment right to counsel mandated that government defenders be appointed for indigent defendants;<sup>187</sup> expanded the Fifth Amendment right to remain silent by requiring that arresting officers give warnings about the consequences of speaking;<sup>188</sup> and placed a moratorium on the death penalty until it could be ensured that the legal process was fair.<sup>189</sup> These new restrictions, and others, were meant to expand individual freedom from unfair government action.<sup>190</sup>

However, expansion of stringent procedural protections has, ironically, inadvertently contributed to the “crisis of overcriminalization.”<sup>191</sup> In order to evade these heightened due process requirements, Congress has continuously enacted laws criminalizing an ever-greater sweep of behavior in order to enable easier prosecutions.<sup>192</sup> These laws often proscribe trivial but easily-detected behavior, such as minor traffic violations, loitering, and drug possession, in order to act as a proxy for the more serious crimes that law enforcement officers were actually interested in but lacked probable cause to support arrest.<sup>193</sup> Like overbreadth, overcriminalization has been used to evade due process, undermining the very goal that the Court was trying to achieve in expanding procedural due process protections.<sup>194</sup>

A third factor contributing to the unintended consequences of due process is that the emphasis on procedural requirements pre-conviction have legitimized excessively harsh sentences, as well as sentencing policies that shift power to prosecutors within the executive branch and reduce the relative power of judges. Faith in procedural due process has enabled complacency towards excessively harsh sentences post-conviction. Due process during the conviction process has served to justify the lengthy sentences that many defendants receive for trivial crimes,<sup>195</sup> as well the

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187. *Gideon v. Wainwright*, 372 U.S. 335, 339–40 (1963).

188. *Miranda v. Arizona*, 384 U.S. 436, 444 (1966).

189. *Furman v. Georgia*, 408 U.S. 238, 239 (1972).

190. *See id.* at 242 (Douglas, J., concurring) (forbidding the death penalty due to its “arbitrary and discriminatory” application).

191. *See* Sanford H. Kadish, *The Crisis of Overcriminalization*, 374 ANNALS OF THE AM. ACAD. OF POL. & SOC. SCI. 157, 158–59 (1967).

192. *Id.*

193. *See* Stuntz, *supra* note 140, at 520 (“Substituting an easy-to-prove crime for one that is harder to establish obviously makes criminal litigation cheaper for the government.”).

194. Kadish, *supra* note 191, at 168 (“The chief vice of these laws is that they constitute wholesale abandonment of the basic principle of legality.”).

195. *See* the infamous federal five year mandatory minimum for crack cocaine. Anti-Drug Abuse Act of 1986, Pub. L. No. 99-570, 100 Stat. 3207 (current version at 21 U.S.C. § 841 (2010)). Until 2010, it was triggered by a mere five grams of crack, the equivalent of a few sugar packets.

death penalty, even as innocent convicts are exonerated from death row.<sup>196</sup> The severity of possible sentences resulting from conviction by jury raises the stakes for defendants so dramatically that some innocent people may hedge their bets and plead guilty.<sup>197</sup> Moreover, mandatory minimum sentences, overcriminalizing statutes that allow prosecutors to stack charges, and other statutory mechanisms have compounded these problems by, in essence, shifting sentencing power from judges to prosecutors.<sup>198</sup> These tools have enabled prosecutors to produce guilty pleas so efficiently that fewer than one in forty felony cases currently reaches trial nationwide (as opposed to one in twelve in the 1970s).<sup>199</sup> The advent of sentencing guidelines in the federal system and many state systems, which create a determinate sentencing scheme based on offense conduct, criminal history, and other aggravating and mitigating factors, has made the power shift to prosecutors even more pronounced. Under the Federal Sentencing Guidelines, prosecutors have express authority over: the initial charges in the indictment, especially charges carrying mandatory minimum sentences; discretionary sentencing enhancements, including offender characteristics; charge bargaining after indictment; prosecutorial motions for substantial assistance departures; and the expansive ability to assess the facts of a case and bargain with a defendant about aggravating and mitigating factors.<sup>200</sup> Because these sentencing guidelines tend to be complex, rigid, and heavily fact-dependent, they enable prosecutors to adjust the charges and thus determine the sentence before the case is ever heard by a judge.<sup>201</sup> The gap between plea bargain-produced sentences and trial-produced sentences, known among defense lawyers as “the trial penalty,” can be sufficiently

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196. For example, Texas governor Rick Perry declared that he was proud of the execution of 235 people in his state because he trusted the process that these people received. Arlette Saenz, *Death Penalty: Applause for Rick Perry's 'Ultimate Justice' at Republican Debate*, ABC NEWS (Sept. 8, 2011), <http://abcnews.go.com/blogs/politics/2011/09/death-penalty-applause-for-rick-perrys-ultimate-justice-at-republican-debate/> (“The State of Texas has a clear, thoughtful process in place.”).

197. See *Frontline: The Confessions*, (PBS television broadcast Nov. 9, 2010) (investigating the story of four innocent men that pled guilty to murder due to police pressure and to avoid potential death sentences).

198. See Luna & Cassell, *supra* note 115, at 1 (“A mandatory minimum deprives judges of the flexibility to tailor punishment to the particular facts of the case and can result in an unduly harsh sentence.”).

199. Richard Oppel, *Sentencing Shift Gives Prosecutors New Leverage*, N.Y. TIMES, (Sept. 26, 2011), <http://www.nytimes.com/2011/09/26/us/tough-sentences-help-prosecutors-push-for-plea-bargains.html?pagewanted=all>.

200. *Id.*

201. Frank O. Bowman, III, *The Failure of the Federal Sentencing Guidelines: A Structural Analysis*, 105 COLUM. L. REV. 1315, 1339 (2005).

large to induce defendants to plead guilty. Although the plea bargain process has its benefits, the constitutional right to a jury trial means far less for criminal defendants if they are harshly punished for exercising that right.<sup>202</sup>

The courts could, of course, interpret the Constitution to strike down many of these laws as violating due process for undue vagueness, violating the Eighth Amendment for being cruel and unusual, or based on other theories. But, like judicial decisions imposing heightened procedural due process requirements, these decisions would likely prompt other unprestatable adaptations by the other branches in order to maintain their power relative to judges.<sup>203</sup> In reality, the courts have largely done the opposite since the Warren era, deferring to the other branches' decisions and rarely striking them down as unconstitutional.<sup>204</sup> The courts may have learned the lesson that attempts to “check” the other branches, as contemplated by Madison, can backfire and actually enable the accumulation of power.

In sum, the evolution of checks and balances within a system of separation of powers can actually enable expanding government power rather than constraining it. Even if certain branches are able to constrain the others, such as the Legislature constraining the Judiciary, this may nevertheless ultimately lead to the erosion of liberty instead of its preservation.

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202. See WILLIAM STUNTZ, *THE COLLAPSE OF AMERICAN CRIMINAL JUSTICE* 257–63 (2011) (arguing that procedural mechanisms have incentivized guilty pleas and thus diminished the adversarial process in criminal cases).

203. For a comprehensive explanation of how the very reforms meant to enhance fairness and racial equality in the criminal justice system—police professionalism, procedural due process guarantees, and other “expert”-driven reforms—actually contribute to dysfunction in the criminal justice system, see generally Stuntz, *supra* note 176.

204. See, e.g., *Skinner v. Ry Labor Execs' Ass'n*, 489 U.S. 602, 641 (1989) (Marshall, J., dissenting) (criticizing the majority's “cavalier disregard for the text of the Constitution” in drug cases and declaring that “[t]here is no drug exception to the Constitution”); *McCleskey v. Kemp*, 481 U.S. 279 (1987) (upholding the death penalty against challenges of racial discrimination); *United States v. Leon*, 468 U.S. 897, 929 (1984) (Brennan, J., dissenting) (noting in case limiting the reach of the exclusionary rule through the “good faith” exception, that “[i]t now appears that the Court's victory over the Fourth Amendment is complete. . . . [T]oday the Court sanctions the use in the prosecution's case in chief of illegally obtained evidence against the individual whose rights have been violated—a result that had previously been thought to be foreclosed”); *Schneekloth v. Bustamonte*, 412 U.S. 218 (1973) (giving police a wide leeway to conduct “consent” searches, without requiring police to inform subjects that they have a right to refuse).

### C. Constitutional Theory

One might respond to the previous examples that the constitutional design is not the problem, but rather the theories of interpretation used to implement those designs. With the “right” theory, the Constitution’s meaning would not be so malleable, and judicial rulings would better enforce the Constitution’s underlying principles. Alternatively, one might note that, even assuming legal institutions evolve over time in ways that defy the intentions of the original designers, this is not necessarily a bad thing. Indeed, such change may actually be desirable, as it takes into account the changing preferences of the society rather than anchoring them to the “dead hand” of the past.<sup>205</sup>

#### 1. The Dilemma of a “Unified” Constitutional Theory

But a comparison of the dominant rival theories of constitutional interpretation, originalism and living constitutionalism, reveals a dilemma. The originalists say that courts should interpret the Constitution according to its original meaning—however this meaning is to be determined.<sup>206</sup> The living constitutionalists say that the Constitution is an evolving document that should be interpreted according to society’s values as they change over time.<sup>207</sup> Both sides speak to important, yet conflicting, values. As Strauss, a proponent of living constitutionalism based on a common-law conception of constitutional evolution,<sup>208</sup> explained in his book *The Living Constitution*, “it seems we want to have a Constitution that is both living, adapting, and changing and, simultaneously, invincibly stable and impervious to human manipulation. How can we escape this predicament?”<sup>209</sup>

Strauss’s statement elegantly explains both the central dilemma of constitutional theory and the prevalent attitude towards resolving it. In essence, ambitions for the Constitution are multifaceted and, at times, contradictory. We prize stability in the values embodied in the Constitution that we consider worth adhering to, but demand the flexibility to reject the values we consider outmoded. Defining which values belong in the former

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205. For a discussion of “dead hand” constitutional arguments, see generally Adam M. Samaha, *Dead Hand Arguments and Constitutional Interpretation*, 108 COLUM. L. REV. 606 (2008); Reva Siegel, *Heller & Originalism’s Dead Hand—In Theory and Practice*, 56 U.C.L.A. L. REV. 1399 (2008).

206. See, e.g., STRAUSS, *supra* note 39.

207. See generally *id.*

208. See generally *id.*

209. *Id.* at 2.

category and which belong in the latter is a task wrought with disagreement. Yet, Strauss also articulates the common sentiment—perhaps the central concern of constitutional discourse—to build a theory that allows us to “escape this predicament.” That there is an answer that weaves together these discordant threads is presumed. In a sense, our society deeply depends on such a presumption, as a society that permits a peaceful co-existence of competing conceptions of the good<sup>210</sup> is in many ways contingent on a set of common set of fundamental rules that are consented to, and respected by, all members of the population.<sup>211</sup>

We do not attempt to resolve this predicament. To the contrary, we suggest that synthesis of these competing objectives into a unified theory is likely an impossible task. Despite the diversity in these constitutional theories, they share assumptions similar to the theories underlying law and economics scholarship. Namely, these theories assume that the behaviors of the legal system are governed by stable, “law-like” qualities that ensure a level of predictability and stability to the consequences of judicial decisions, and that, consequently, legal theories can be “designed” based on these entailing laws. Yet, the very existence of the large number of well-reasoned, persuasive permutations of various constitutional theories—so many that grouping these theories into two diametrically opposed camps is in some ways misleading<sup>212</sup>—may serve as evidence of the incapacity of any one theory to acknowledge, much less take into account, the considerations necessary to accomplish the objectives motivating the theory in the first place. Even more telling is the evolution of these theories over time, so that popular strains of originalism and living constitutionalism have to come to embody greater similarities than differences.<sup>213</sup> We contend that this evolution in theory, like the evolution in application described in the previous two sections, shows that the interesting question may not be which

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210. See Rosenfeld, *supra* note 1, at 1310 (“[H]eterogeneous societies with various competing conceptions of the good, constitutional democracy and adherence to the rule of law may well be indispensable to achieving political cohesion with minimum oppression.”).

211. See *id.* at 1311 (“Because people in pluralistic-in-fact societies do not share the same values or interests, the legitimacy of their fundamental political institutions ultimately depends on some kind of consent among all those who are subjected to such institutions.”).

212. STRAUSS, *supra* note 39, at 31 (noting the originalist critique that “the living Constitution is infinitely flexible and has no content other than the views of the person who is doing the interpreting”); Peter Smith, *How Different are Originalism and Non-Originalism?*, 62 HASTINGS L.J. 707, 719–21 (2011).

213. STRAUSS, *supra* note 39, at 10–11 (recognizing the many variations of originalist theory, and that some versions of originalism are hardly different from his own version of living constitutionalism).

theory is “best,” but rather how and why theories change and how institutions may best adapt to this inherent uncertainty.

One example of the “affordances”—novel, new uses—of the constitution is the heterogeneous and contradictory claims that are made about what is constitutional.<sup>214</sup> Political parties and disparate constituents coopt the Constitution for their heterogeneous purposes, by framing their preferences and interests as assaults on the constitution itself. This happens irrespective of where one might sit in the political spectrum, often with competing and opposing claims about constitutionality. Thus actors find new uses for the constitution by exciting stakeholders and heightening the stakes by pointing out and appealing to violations of fundamental rights. Naturally this form of the affordances of law has been used for both good and ill. But we do not seek to arbitrate between the good and ill, rather to simply point out the impossibility of foreseeing novel, new—perhaps contradictory—uses for any social legislation.

Often “competing” theories are competing over which compact statement to use rather than substance. At first, perhaps, two competing summary statements are thought to compress distinct arguments meant to rationalize available data. As debate and study continue, however, each side comes to see the limits of its initial summary statement and initial set of arguments. Each side then begins to qualify its arguments, adding auxiliary conditions, propositions, cases. Soon each theory is not nearly as compact as it was initially, and each theory does about as well as the other at rationalizing the available data. But the summary statements, the chapter headings as it were, continue to differ and the participants come increasingly to mischaracterize and simplify one another’s arguments. This unfortunate pattern seems to have been followed in the debate between originalism and living constitutionalism.<sup>215</sup>

## 2. The “Clash” of Originalism and Living Constitutionalism

Originalist theories have experienced a resurgence in the last few decades. These theories represent a cluster of related interpretive

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214. JACK M. BALKIN, CONSTITUTIONAL REDEMPTION: POLITICAL FAITH IN AN UNJUST WORLD 38 (2011); see also Lawrence B. Solum, *Faith and Fidelity: Originalism and the Possibility of Constitutional Redemption*, 91 TEX. L. REV. 147, 160 (2012).

215. Our logic is similar to that of IMRE LAKATOS, PROOFS AND REFUTATIONS: THE LOGIC OF MATHEMATICAL DISCOVERY (John Worall & Elie Zahar eds., 1976).

approaches, developed in several waves.<sup>216</sup> The initial iterations asserted that the linguistic meaning of the Constitution was fixed at the time of ratification, and argued that judicial resolution of constitutional controversies should be constrained by the original meaning of the text.<sup>217</sup> More recent versions, however, have recognized the need to account for the inherent indeterminacy imposed by the vagueness and ambiguity of language. “New” originalists such as Lawrence Solum recognize that construction provisions may have a core, determinate meaning, but that there are also less-determinate cases not definitively answered by the text alone. While there are core meanings to constitutional concepts from “freedom of speech” to the “Commerce Clause,” there are also borderline cases where it is arguable how the text was meant to be applied. Thus, these originalists posit a distinction between constitutional *interpretation*, or the discovery of the core meaning of constitutional provisions, and constitutional *construction*, or the production of meaning in indeterminate cases.<sup>218</sup> This distinction recognizes the inherent indeterminacy in the text and the consequent possibility for multiple meanings.<sup>219</sup>

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216. See Thomas B. Colby & Peter J. Smith, *Living Originalism*, 59 DUKE L.J. 239, 239 (2009) (arguing that “originalism” is not actually a coherent theory but rather a disparate collection of distinct theories that share little in common besides the misleading label).

217. Lawrence B. Solum, *What is Originalism: The Evolution of Contemporary Originalist Thought*, in THE CHALLENGE OF ORIGINALISM: ESSAYS IN CONSTITUTIONAL THEORY 1 (Grant Huscroft & Bradley W. Miller eds., 2011) (arguing that originalism has evolved over time the mainstream of originalist theory began with an emphasis on the original intentions of the framers but has gradually moved to the view that the “original meaning” of the constitution is the “original public meaning” of the text).

218. Lawrence B. Solum, *The Interpretation–Construction Distinction*, 27 CONST. COMMENT. 95 (2011). Some originalists dispute whether constitutional construction can ever be originalist, since it goes beyond the act of determining the original meaning of the text unless supplemented by some other determination of original intent, but many have embraced a theoretical distinction between interpretation and construction that recognizes the inherent indeterminacy in the text and the consequent possibility for multiple meanings. See Thomas B. Colby, *The Sacrifice of the New Originalism*, 99 GEO. L.J. 713, 724 (2011) (summarizing the advances of the New Originalism and arguing that the New Originalism is intellectually more defensible than the Old one and better able to respond to living constitutionalist critiques, but at the cost of judicial restraint); Colby & Smith, *supra* note 216, at 722–24 (2011) (suggesting that the New Originalism no longer provides sufficient constraint and restraint to serve as a real rival for Living Constitutionalism).

219. See Jack Balkin, *The Roots of the Living Constitution*, 92 B.U. L. REV. 1130, 1132 (2012) (noting that “[m]ost originalists since the 1980s have argued that what is binding is the original meaning of the text, not the original intentions of its drafters or the original understandings of the adopters,” but recognizing that “‘original meaning’ might be far thicker: it might include the original principles, purposes, expectations, or assumptions of the adopting generation”); see also Solum, *supra* note 218, at 1.

Critics of originalism contend that the demand of adherence to “original” meaning is unworkable. As Strauss explains, “an unchanging Constitution would fit our society very badly. Either it would be ignored or, worse, it would be a hindrance, a relic that keeps us from making progress and prevents our society from working in the way it should.”<sup>220</sup> Even assuming it is possible to objectively determine the Constitution’s original meaning, as society changes there inevitably arise new situations in the economy, culture, and politics which could not have been anticipated by the drafters. The indeterminacy of language ensures that there will often be multiple interpretations of the Constitution as it applies to these situations that are faithful to the drafters’ intent.

Take, for example, the compelling originalist arguments on both sides of the debate over the Second Amendment, as seen in both the majority and the dissent in *District of Columbia v. Heller*.<sup>221</sup> The majority advocated a textualist argument that the language of the Second Amendment unequivocally embraces the right to bear arms, and supported its view with an originalist historical examination of the societal understanding of the text at the time of its adoption.<sup>222</sup> The dissent, by contrast, examined the historical intentions behind the amendment and emphasized that the need for gun ownership existed within the context of militias during the Revolutionary War.<sup>223</sup> Similarly, anti-differentiation and anti-subordination advocates interpret the Fourteenth Amendment’s guarantee of equal protection under the law in diametrically opposed ways. Anti-differentiation sees the clause, and its interpretation in *Brown v. Board of Education*,<sup>224</sup> which prohibited segregation in public schools, as promulgating a color-blind view of the Constitution that prohibits racial discrimination by the state of any kind.<sup>225</sup> Anti-subordination contends that the clause was passed to remedy centuries-long discrimination, which in many ways has continued

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220. STRAUSS, *supra* note 39, at 2.

221. *See generally* *District of Columbia v. Heller*, 554 U.S. 570 (2008).

222. *Id.* at 586.

223. *Id.* at 631 (Stevens, J., dissenting) (“The Second Amendment was . . . a response to concerns raised during the ratification of the Constitution that the power of Congress to disarm the state militias and create a national standing army posed an intolerable threat to the sovereignty of the several States. Neither the text of the Amendment nor the arguments advanced by its proponents evidenced the slightest interest in limiting any legislature’s authority to regulate private civilian uses of firearms.”).

224. *See generally* *Brown v. Bd. of Educ. of Topeka, Shawnee Cnty., Kan.*, 347 U.S. 483 (1954).

225. *See, e.g.*, *Parents Involved in Cmty. Schs. v. Seattle Sch. Dist. No. 1*, 551 U.S. 701, 748 (2007) (“The way to stop discrimination on the basis of race is to stop discriminating on the basis of race.”).



unabated since slavery, so that racial classification may be permissible in order to effectuate this anti-subjugation purpose.<sup>226</sup>

Living constitutionalists, led by Supreme Court Justice Breyer, directly acknowledge the indeterminacy of the Constitution's text by asserting that the meaning of the Constitution itself evolves over time as it adapts to changing circumstances, without necessitating formal amendment.<sup>227</sup> Living constitutionalists recognize the impossible task assigned to the Constitution's framers of anticipating technological, social and economic developments that were unforeseen, and unforeseeable, during their time.<sup>228</sup> Poignantly, certain societal values that were fundamental and unquestioned at the time of founding are now universally perceived as morally odious—such as the embrace of slavery and the treatment of women as property. This shift in values raises the question of the normative desirability of unquestioning reliance on the drafters' intentions without considering “evolving standards of decency.”<sup>229</sup>

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226. See Ruth Colker, *Anti-Subordination above All: Sex, Race, and Equal Protection*, 61 N.Y.U. L. REV. 1003, 1051 (1986); Harris, *supra* note 65, at 1749. Our views on this point share certain similarities with legal realism, which contends that the judicial decision-making process is largely political. See, e.g., Felix Cohen, *Transcendental Nonsense and the Functional Approach*, 6 COLUM. L. REV. 809, 823 (1935). Our argument that laws act as adjacent possible niches for consequentialist decision-making might be interpreted as simply an elaborate argument for legal realism. But although there is some overlap, there are also profound differences. First, legal realists, like other schools we have critiqued, presume that legal institutions are the product of intentional design, that judicial doctrines are executed in a deliberate and knowing manner. By contrast, we argue that legal institutions emerge from organic, multi-causal processes. Second, realist proponents contend that judges use the illusion of principled doctrines to obscure ideological decision-making; our theory leaves room for the role of principled judgment in a way that realism does not.

227. For a recent vindication of Justice Breyer's theory in Supreme Court jurisprudence, see *NLRB v. Noel Canning*, 134 S. Ct. 2550, 2578 (2014) (stating that “in all cases, we interpret the Constitution in light of its text, purposes, and ‘our whole experience’ as a Nation”). The phrase “living constitution” is originally credited to Howard Lee McBain. HOWARD LEE MCBAIN, *THE LIVING CONSTITUTION, A CONSIDERATION OF THE REALITIES AND LEGENDS OF OUR FUNDAMENTAL LAW* (1927).

228. See *Missouri v. Holland*, 252 U.S. 416, 433 (1920) (Holmes, J.) (“[W]hen we are dealing with words that also are a constituent act, like the Constitution of the United States, we must realize that they have called into life a being the development of which could not have been foreseen completely by the most gifted of its begetters. It was enough for them to realize or to hope that they had created an organism. . . . The case before us must be considered in the light of our whole experience and not merely in that of what was said a hundred years ago.”).

229. *Trop v. Dulles*, 356 U.S. 86, 101 (1958); see also RICHARD POSNER, *SEX AND REASON* 328 (1992) (arguing that “[a] constitution that did not invalidate . . . offensive, oppressive, . . . and sectarian law would stand revealed as containing major gaps” and that it is “reassuring to think that the courts stand between us and legislative tyranny even if a particular form of tyranny was not foreseen and expressly forbidden by framers of the Constitution”).

Yet this narrative is not so simple as living constitutionalists suggest. Critics charge that the Constitution was meant to be a bedrock of unchanging principles, unswayed by the vagrancies of public opinion and political expediencies. Why have a Constitution at all if its provisions are so pliable as to risk rendering its fundamental principles meaningless? But beyond the indeterminacy of language, there is a more serious and less-examined problem with living constitutionalism. Even assuming it is possible to interpret the Constitution in accordance with “societal values”—as opposed to judicial fiat—there is no guarantee that these interpretations will not be manipulated to serve purposes unimagined by the designers, whether for good or ill. Living constitutionalists often focus on the “good”—the doctrinal evolutions that they see as validating the living Constitution—such as broad interpretations of the Commerce Clause that enabled stronger economic and racial regulations.<sup>230</sup>

But equally with the good, novel constitutional interpretations have produced unintended consequences that have undermined, even sabotaged, the original intentions behind these interpretations. As explained above, broad interpretations of the Commerce Clause may have, at one level, produced racial justice. But these interpretations equally enabled the rise of federal criminal law, and especially the War on Drugs, that ultimately served as a mechanism of racial oppression and subverted some of the Civil Rights Movement’s greatest achievements. The Supreme Court endorsed heightened procedural due process requirements as a way to rein in excesses of the executive and legislative branches and to protect individual rights. Yet these requirements encouraged the proliferation of sweeping, overbroad statutes by the Legislature and the overuse of these statutes by prosecutors, thus undermining the judiciary’s attempt to restrain the other branches and its protection of defendants’ rights. The meaning of an evolving Constitution cannot be controlled according to a single set of societal values and intentions. Rather, an evolving Constitution poses the inherent risk that

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230. The Warren Court’s procedural due process rulings are slightly more nuanced, as they are generally characterized as prophylactic, meaning that these measures were not understood as intrinsic to the text of the Constitution, but were practically necessary to ensure compliance with it. See Susan R. Klein, *Identifying and (Re)Formulating Prophylactic Rules, Safe Harbors, and Incidental Rights in Constitutional Criminal Procedure*, 99 MICH. L. REV. 1030, 1030–33 (2001). However, even if these rulings do not reflect an evolution in understanding of text, they do reflect an evolution in the Court’s values including its understanding of justice and equality before the law—particularly considering minority and indigent defendants who were frequently denied meaningful access to justice before the Court’s decisions. See *Powell v. Alabama*, 287 U.S. 45, 59–60 (1932) (holding that in a capital trial, the defendant must be given access to counsel upon his or her own request in order to comply with due process).

its provisions may be appropriated for unforeseen purposes by adaptive agents within the legal system.

### 3. The Mutual Evolution of Originalism and Living Constitutionalism

Cognizant of the relative weaknesses of originalism and living constitutionalism, some creative scholars have found ways to merge the two theories—or to at least create a seamless theoretical web between them in ways that combine their relative strengths. The interpretation-construction distinction, which acknowledges the ambiguity of language and the necessity of creating doctrine in cases where the text is indeterminate, is one example. Balkin embraces this distinction in a theory he calls “framework originalism,” arguing that “[o]riginal meaning originalism and living constitutionalism are compatible positions. In fact, they are two sides of the same coin.”<sup>231</sup> In contrast to our approach, he describes his theory from a “design” perspective:

A theory of originalism that takes this designer’s perspective sees the initial versions of a constitution as primarily a framework for

governments, a skeleton on which much will later be built. We look to original meaning to preserve this framework over time, but it does not preclude us from a wide range of possible future constitutional constructions that implement the original meaning and that add new institutional structures and political practices that are not inconsistent with it. This approach is the essence of framework originalism. In this model of originalism, the Constitution is never finished, and politics and judicial construction are always building up and building out new features.<sup>232</sup>

Elsewhere, Balkin explains that:

From a design perspective, the use of different types of legal norms and silences makes perfect sense. Sometimes, designers use rules to set up the basic framework of institutions. They do this not merely to assign roles and tasks or to conclusively limit or grant power. Rather, as the American Constitution imagines, designers might use rules to place different parts of the government in competition with each other, producing an indeterminate result. . .

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231. Jack Balkin, *Framework Originalism and the Living Constitution*, 103 NW. U.L. REV. 549, 549 (2009).

232. *Id.* at 557.

. [T]his is how the American system of living constitutionalism works in practice.<sup>233</sup>

Thus, Balkin argues that “framework originalism is consistent with a wide variety of different forms of living constitutionalism, although certainly not with all of them. Framework originalism permits a great deal of contingency in how the Constitution turns out; each of these versions can still be faithful to text and principle.”<sup>234</sup>

Peter Smith has similarly noted that “self-described ‘new originalists’ have begun to acknowledge that “because the constitutional text often is phrased at a very high level of generality, originalist interpretation alone simply cannot answer many difficult questions of constitutional law.”<sup>235</sup> Therefore, the objective original meaning of many of the Constitution’s provisions must be ascertained at a high-level of generality, and constitutional construction must be used to formulate legal rules to apply the text to concrete situations. He contends that “[i]f this is what originalism entails, then there is no obvious distinction, at least in practice and possibly in theory, between the new originalism and non-originalism,”<sup>236</sup> or living constitutionalism.

A parallel evolution has occurred among living constitutionalists. For example, Strauss, an avowed living constitutionalist, recognizes the importance of adhering to past wisdom, and solves the “predicament” by arguing that judges allow constitutional doctrines to gradually “evolve” through common law decision-making. He contends that the most groundbreaking constitutional decisions “came about not through the careful reading of the text, and not through adherence to original understandings, but through the evolution of precedents.”<sup>237</sup> More radically, Ackerman argues that the meaning of the Constitution itself is altered through higher law-making by the populace during “constitutional moments,” or extraordinary periods of political and constitutional change.<sup>238</sup> Ackerman notes that some of the greatest periods of constitutional change did not occur through the formal amendment process but rather through extra-legal measures initiated by the public. Ackerman points in particular to periods of heightened constitutional and debate over slavery at the time of the Civil War, and over anti-regulatory Lochner era doctrines and

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233. *Id.* at 554.

234. *Id.* at 559.

235. Smith, *supra* note 212, at 707.

236. *Id.*

237. STRAUSS, *supra* note 39, at 35.

238. See ACKERMAN, *supra* note 90.

striking change in constitutional interpretation to justify New Deal economic regulations, as explained above. Thus Ackerman argues that the populace determines the meaning of the Constitution, and alters its very fabric through these transformative political moments.

The evolution of this debate reveals a tension between the presumption of stasis underlying these constitutional theories and the reality of their evolution over time. The originalists' demand is implausible because, even assuming it is possible to objectively determine the intent of the founders, as society changes there inevitably arise new situations which could not have been anticipated by the founders. There may be multiple interpretations of the Constitution as it applies to these situations that are faithful to the founders' intent. But living constitutionalism is also incomplete. Living constitutionalists use the term "evolution" to mean that judges should interpret the Constitution according to today's values. But they do not recognize that, even if these interpretations do adequately reflect societal values, they may also enable entirely new and unforeseen uses of these interpretations as adaptive agents within the legal system use the courts' new interpretation as an adjacent possible niche for their own ends, as observed in the Commerce Clause and separation of powers examples. Consequently, constitutional theories of interpretation have themselves evolved, in order to adapt as constitutional doctrines are applied in new, surprising ways.

### III. A DEEPER PROBLEM: THE FRAME PROBLEM AND PERILS OF CENTRALIZED DECISION-MAKING

Although distinct, the phenomena we have examined thus far have significant parallels. Namely, all are demonstrations of how laws become unmoored from their original intentions as they are applied in novel situations in unforeseen ways.

#### *A. The Frame Problem and the Unwieldiness of Law*

We contend that this feature is rooted in the "frame problem," discussed above. If, as we have argued, law-making is a "creative" process driven by the continuous creation of new actualities from the adjacent possible, then novelty is ubiquitous in the legal system. However, this production of novelty creates a framing problem, as it ensures that law-makers cannot base their decisions on a complete set of possible uses for proposed laws ahead of time. The "frame" or paradigm driving decision-making must therefore adapt to the evolving uses of law.

“Novelty intermediation” through legal specialists can help cope with novelty by transferring information more smoothly to those who rely on innovation but lack such specialized knowledge.<sup>239</sup> Such specialization can be found at all junctures in the legal system, from courts, administrative tribunals, legislative assistants, all of whom serve government, and lawyers that serve clients. Such specialization, however, has been lop-sided in the legal system, as the structure of government articulated in the Constitution did not anticipate, nor has it been able to keep pace with, the vastly increasing complexity of legal regulatory regimes.<sup>240</sup> Not only has the length of statutes exponentially increased, Congress also delegates vast authority to administrative agencies in the executive branch to craft reams of rules governing statutory implementation.<sup>241</sup> The multiplicity of laws and regulations has exploded in tandem with the explosion of diversity in the economy—which not only enables the creation of new activities that could potentially be regulated, but also innovations in the methods of regulation. As the diversity of economic and social activity has grown, so has the interconnected network of laws and regulations that govern them. Epstein’s desire for “simple” rules that maintain transparency and respect citizens’ due process rights, while begetting greater compliance with the law,<sup>242</sup> has belied the reality of the vast administrative state.

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239. Koppl et al. define novelty intermediaries as having “specialized knowledge about an area in which novelty seems to matter, digital technology for example, and updat[e] that knowledge frequently” in order to “transfe[r] such knowledge to clients or otherwise hel[p] them to cope with novelty in the area of [their] specialization.” Koppl et al., *supra* note 20, at 15. They explain the role for novelty intermediation in the economy at large and how it is used to solve the frame problem for consumers, as “consumers coping with novelty cannot be expected to have a complete set of preferences” across all market goods and “it is not clear what combinations [of goods] will best satisfy the consumer’s preferences.” *Id.* at 16. Thus, “experts help consumers negotiate novel products and novel product combinations.” *Id.* Such a process has a strong parallel in in the legal system, as legal specialists assist clients in navigating legal rules, and governments in crafting them.

240. Justice Scalia, for example, argues that twentieth-century state-building is essentially a pragmatic exception to originalism, because the vast powers of the modern federal government are so entrenched that, although the framers would never have approved of these powers, it is simply too late to go back. See *Gonzales v. Raich*, 545 U.S. 1, 38–42 (2005) (Scalia, J., concurring); Antonin Scalia, *Originalism: The Lesser Evil*, 57 U. CIN. L. REV. 849, 861–64 (1989).

241. For an examination of the conflict between the duty of judicial review and judicial deference to administrative agencies, compare Henry P. Monaghan, “*Marbury*” and the *Administrative State*, 83 COLUM. L. REV. 1, 2 (1983), with Thomas W. Merrill, *Judicial Deference to Executive Precedent*, 101 YALE L.J. 969, 971 (1992) (arguing that *Chevron* deference better suits underlying constitutional principles).

242. RICHARD EPSTEIN, *SIMPLE RULES FOR A COMPLEX WORLD* (1997).

Instead of nimbly adapting to fluidly changing circumstances, modern legislatures and administrative agencies have adopted complex, wide-ranging statutes and implementing regulations that match the exploding complexity of the individuals and organizations they regulate. Contrast, for example, Glass-Steagall, which separated investment and commercial banking and created deposit insurance and the FDIC among other feats in thirty-seven pages,<sup>243</sup> with the Dodd-Frank Act at 848 pages, not including the nearly 14,000 pages of regulations drafted to implement the statute's requirements.<sup>244</sup> In particular, Section 619 of the Dodd-Frank Act adds a new section 13 to the Bank Holding Company Act of 1956.<sup>245</sup> This section was meant to implement the Volcker Rule, which would limit proprietary trading and conflicts of interest between financial institutions and their clients.<sup>246</sup> Even the group of regulatory bodies directed by the Dodd-Frank Act to formulate the Volcker Rule, however, acknowledged that “[i]n formulating the proposed rule, the Agencies have attempted to reflect the structure of section 13 of the BHC Act . . . . However, the delineation of what constitutes a prohibited or permitted activity under section 13 of the BHC Act often involves subtle distinctions that are difficult both to describe comprehensively within regulation and to evaluate in practice.”<sup>247</sup> Thus, the very regulators empowered to execute Dodd-Frank themselves report that the Act is not merely hard to understand, but utterly opaque.<sup>248</sup>

Not surprisingly, the scope of regulatory authority has also grown over time as a kind of co-evolutionary arms race has taken place between regulatory authorities and the nominally private markets they regulate. Legal doctrines utilized by the courts have not sufficiently evolved to cope with this increasing complexity to adequately adjudicate competing rights.

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243. See Banking Act of 1933, Pub. L. No. 66-73d (repealed 1999).

244. See generally Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) (codified at 12 U.S.C. § 5301 et seq); *Three Years of Dodd-Frank*, DAVIS POLK (July 1, 2013), <http://www.davispolkportal.com/infographic/july2013infographic.html>.

245. FDIC, Prohibitions and Restrictions on Proprietary Trading and Certain Interests In, and Relationships with, Hedge Funds and Private Equity Funds, 12 C.F.R. pt. 351 (2015), <https://www.fdic.gov/news/board/2011octno6.pdf>.

246. *Id.*

247. *Id.*

248. Moreover, as Lawrence Baxter notes, these regulations are not only opaque, they are often devastatingly ineffective. Financial regulation remains dominated by “[e]normously complex rules and regulations, supposedly enforced by armies of regulators in many countries and facilitated through ever more esoteric modeling of risks, failed miserably to anticipate, let alone prevent or even mitigate, [disaster]”. Lawrence Baxter, *Adaptive Regulation in the Amoral Bazaar*, 128 S. AFR. L.J. 253, 257 (2011).

As a practical matter, courts do not have the expertise or resources to keep with the increasing scope and specialization of regulation. Consequently, courts have delegated judicial authority over fact finding and many questions of statutory interpretation to administrative tribunals while reserving a deferential standard of review for themselves. This is a troublesome solution beset with weighty questions concerning separation of powers, as administrative tribunals have taken over adjudicative functions traditionally reserved to the judiciary in Article III of the Constitution, and, through increasingly prevalent “rule making” authority, tread on the law-making authority provided to the Legislature in Article I.<sup>249</sup> The administrative state also poses challenges to democratic rule, as unelected “experts” exercise increasing control over interpretation and implementation of statutes and may only be held indirectly accountable to the electorate via presidential elections.<sup>250</sup>

Although legislative and administrative law may be the most prevalent manifestations of undue complexity, increasing doctrinal complexity has also encumbered the courts. Judges decide cases narrowly in order to minimize the framing problem, as they understand that their decisions will inevitably be interpreted in light of circumstances unforeseen at the time of their decision.<sup>251</sup> Their rulings, thus, form narrow niches that avoid creating unintended consequences, but the policy of intentionally leaving undecided the issues not immediately necessary to resolving the case leaves gaps in the law and creates uncertainty.<sup>252</sup> Courts not only navigate between creating

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249. Indeed, in his book, Philip Hamburger argues that the advent of administrative law has returned American government to a form of rule by administrative edict that was familiar to, and rejected by, the American framers, resulting in precisely the sort of consolidated executive power that the Constitution was designed to prevent. PHILIP HAMBURGER, *IS ADMINISTRATIVE LAW UNLAWFUL?* (2014). For a further exploration of the effect of administrative law on separation of powers, see Nathaniel L. Nathanson, *Separation of Powers and Administrative Law: Delegation, the Legislative Veto, and the Independent Agencies*, 75 NW. U.L. REV. 1064 (1980).

250. See HAMBURGER, *supra* note 249; DWIGHT WALDO, *THE ADMINISTRATIVE STATE: A STUDY OF THE POLITICAL THEORY OF AMERICAN PUBLIC ADMINISTRATION* xvi (2006) (“Administrative hierarchy, centralization, and rule by scientifically trained experts are self-evidently undemocratic.”). Perhaps the harshest criticism of administrative law can be found in LORD HEWART, *THE NEW DESPOTISM* 35 (1929) (“Between the ‘rule of law’ and what is called ‘administrative law’ . . . there is the sharpest possible contrast. One is substantially the opposite of the other.”).

251. For a seminal work on the subject, see CASS SUNSTEIN, *ONE CASE AT A TIME: JUDICIAL MINIMALISM ON THE SUPREME COURT* (Michael Aronson ed., 2001).

252. Of course, this approach has its advantages as well—minimization of mistakes, preservation of democratic decision-making, and the ability to conjure a consensus among a divided panel of judges. *See id.* at 3–5.



overly narrow and overly broad rules of law, they also face the risk of creating inconsistency between their decisions. Indeed, inconsistency may not be the exception but rather the rule in legal decision-making. Legal decisions stem from the interactions of multiple precedents in complex ways. Thus, “we cannot predict or follow the continuous trajectory even in principle.”<sup>253</sup> Legal precedents may clash in ways that create unpredictable outcomes, or provide multiple legally “correct” outcomes with little guidance for courts to sort through them. Legal complexity impairs the rule of law.

The result may be inconsistent, or, as realists contend, results-oriented jurisprudence, even if such results were not intended by the judges. Courts, for example, have been inconsistent in their recognition the phenomenon of “emergence,” or the spontaneous order that arises non-linearly from the “collective actions of vast numbers of components . . . each typically following relatively simple rules with no central control or leader.”<sup>254</sup> In many respects, the judicial process emphasizes the segmentation of legal issues without considering that their aggregate impact may transcend the sum of the parts. An appellate court reviewing the fairness of a criminal trial will break down its determination into discrete questions, such as whether the jury selection procedure complied with Sixth Amendment requirements, or whether certain evidence was properly admitted by the trial court. Although doctrine governing certain legal questions may require an analysis of “the totality of the circumstances,” the court nevertheless reviews each legal issue separately, generally without reference to the others. In *Daubert*, for example, the Supreme Court gave a list of factors that might influence the admissibility of scientific evidence. The court warned against using the stated factors as a checklist. “Many factors will bear on the inquiry, and we do not presume to set out a definitive checklist

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253. *Id.* at 5.

254. MELANIE MITCHELL, *COMPLEXITY: A GUIDED TOUR* 12 (2009). Emergence is a notoriously difficult term to define. The term describes a phenomenon common to complex systems, “but we can’t yet characterize the commonalities in a more rigorous way.” *Id.* at 301; see also James P. Crutchfield, *Is Anything Ever New? Considering Emergence*, in *COMPLEXITY: METAPHORS, MODELS AND REALITY* 515, 516 (George A. Cowan et al. eds., 1994) (defining emergence as “a process that leads to the appearance of structure not directly described by the defining constraints and instantaneous forces that control a system”); P. M. Binder, *Frustration in Complexity*, 320 *SCI.* 322, 322 (2008) (defining emergence as “complicated global patterns emerging from local or individual interaction rules between parts of a system”), <https://www.sciencemag.org/content/320/5874/322.full.pdf>.

or test.”<sup>255</sup> In hearings on the admissibility of fingerprint evidence, however, courts have nevertheless used the *Daubert* factors as a checklist.<sup>256</sup>

At the same time, courts have recognized emergence in certain settings. This can be seen in the mismatch between doctrines discerning the scope of government power—which increasingly recognize the complexity of social systems and that the whole may be greater than the sum of the parts—and legal doctrines relating to individual liberties, which cling to a reductionist framework. In particular, courts aggregate individual activity for purposes of determining the constitutionality of government action, while declining to apply a similar aggregative framework when interpreting individual liberties articulated in the Bill of Rights.

An interesting comparison is in the courts’ analytical treatment of economic regulation under the Commerce Clause and its treatment of civil liberties in the Bill of Rights. As explained above, under precedents from *Wickard v. Filburn* to *Gonzales v. Raich*, the Supreme Court has long been comfortable defining “economy activity” in terms of the potential aggregate effects of individual activity. In contrast to the Court’s Commerce Clause jurisprudence, the Court evaluates citizens’ fundamental rights against arbitrary government action under the Fifth and Fourteenth Amendments in a rigidly reductionist way. Courts evaluate the effect of individual laws on fundamental rights without examining the law within the complex web of laws and regulations in which they are embedded. This analytical reductionism provides no constitutional protection against arbitrary government action at a systemic level, such as the aggregate effect of the vast system of criminal laws and the “overcriminalization” phenomenon described above.

A similar asymmetry can be seen in the Court’s approach to government search and seizure jurisprudence under the Fourth Amendment. The Court has delineated certain standards that the government must meet in order to justify a Fourth Amendment search or seizure. Certain minimal intrusions, such as traffic stop or a brief, limited police interrogation on the street, require reasonable suspicion, a lower threshold than the probable cause required for more invasive searches and seizures.<sup>257</sup> “Reasonable suspicion” is an opaque standard, but courts have held that it requires a “totality of the

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255. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 593 (1993).

256. Kristin Romandetti, *Recognizing and Responding to a Problem with the Admissibility of Fingerprint Evidence Under Daubert*, 45 JURIMETRICS 41, 46 (2004).

257. *Terry v. Ohio*, 392 U.S. 1, 27 (1968) (holding that “there must be a narrowly drawn authority to permit a reasonable search for weapons for the protection of the police officer, where he has reason to believe that he is dealing with an armed and dangerous individual, regardless of whether he has probable cause to arrest the individual for a crime”).

circumstances” analysis that takes into account all of the observable circumstances at the time of the search.<sup>258</sup> Thus, in determining whether there is reasonable suspicion to support a traffic stop, the police can take into account the behavior of the driver and any passengers, the location, the time of day or night, and other factors<sup>259</sup>—it is not a bright-line rule and the actions of the driver are taken within context. While each factor taken in isolation may not support a search, the sum of the factors may add up to “reasonable suspicion.”

This “emergence-based” approach contrasts with the Court’s treatment of the threshold question of what constitutes a government search or seizure that triggers Fourth Amendment protections for individual citizens. In *Katz v. United States*,<sup>260</sup> the Court held that it society’s reasonable expectation of privacy that determines when a search occurs.<sup>261</sup> Yet in determining whether society’s expectation of privacy is reasonable, the court has evaluated each government action in isolation, without considering their aggregate effects. This fact has had crucial bearing on courts’ evaluation of government surveillance programs, including collection of cellphone metadata by the National Security Agency. Under the third-party doctrine, individuals lose the expectation of privacy in their information once they convey that information to a third party or to the public domain.<sup>262</sup> Thus, the rationale that a conversation in a public place could be overheard by a police officer expanded over time to justify collection of all phone numbers and location

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258. *Id.* (“[I]n determining whether the officer acted reasonably in such circumstances, due weight must be given, not to his inchoate and unparticularized suspicion or ‘hunch,’ but to the specific reasonable inferences which he is entitled to draw from the facts in light of his experience.”); *see also* *United States v. Cortez*, 449 U.S. 411, 417 (1981) (stating that in evaluating validity of *Terry* stop, court must take into account “the totality of the circumstances—the whole picture”).

259. *See* *United States v. Arvizu*, 534 U.S. 266, 275–77 (2002).

260. *Katz v. United States*, 389 U.S. 347 (1967).

261. *Id.* at 351–52 (explaining that “the Fourth Amendment protects people, not places” and what a person “seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected”).

262. *See, e.g.,* *United States v. Miller*, 425 U.S. 435, 443 (1976) (holding that individuals have no expectation of privacy in business records, where “in revealing his affairs to another,” the defendant had assumed the risk “that the information [would] be conveyed by that person to the Government”). For a discussion of the history and merits of the third-party doctrine, see Orin Kerr, *The Case for the Third-Party Doctrine*, 107 MICH. L. REV. 561, 563–66 (2008). For an argument against the third-party doctrine, see Erin Murphy, *The Case Against the Case for Third-Party Doctrine: A Response to Epstein and Kerr*, 24 BERKELEY TECH. L.J. 1239, 1239–41 (2009).

data held by a telephone company.<sup>263</sup> Similarly, courts have long held that there is no expectation of privacy in one's public movements, and so police could use beepers in order to track a vehicle's movements over an extended period of time.<sup>264</sup>

Recently, however, this view has begun to change, as a doctrine called the "mosaic theory" has emerged in the federal courts. This theory was embraced by the concurring opinion in *United States v. Jones*,<sup>265</sup> which held that long-term tracking of a vehicle using GPS monitoring was a search under the Fourth Amendment. Although the majority opinion emphasized the physical trespass undertaken in order to attach the GPS to the car,<sup>266</sup> Justices Alito and Sotomayor's concurrences contended that, while people may not have a reasonable expectation of privacy in their public movements, exceedingly private information can be revealed when technology is used to aggregate those movements over time, so that there is a reasonable societal expectation of privacy against this intrusive government surveillance.<sup>267</sup> Although still nascent, the Fourth Amendment doctrine is beginning to evolve to take such aggregation into account.

These uneven evolutions of judicial doctrine show that judges may be inadequately suited to deal with the "frame problem." The common law method of judicial decision-making has been lauded by many, from Hume to Hayek, for its ability to "evolve" legal doctrines by refining them over time based on accumulated wisdom. In *Lectures on Jurisprudence* and *Wealth of Nations*, Adam Smith celebrated interjurisdictional competition among courts, which he saw as the source of the common law.<sup>268</sup> However, such evolution may be inefficient, even stifled, so long as it is centralized in the hands of a few individuals.

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263. See *Smith v. Maryland*, 442 U.S. 735, 742 (1979). This logic has been expanded to permit government collection of all internet metadata. See *ACLU v. Clapper*, 959 F. Supp. 2d 724 (S.D.N.Y. 2013), *vacated in part and remanded* 785 F.3d 787 (2d Cir. 2015) (vacating decision on statutory grounds without reaching constitutional question). *But see* *Klayman v. Obama*, 957 F. Supp. 2d 1 (D.D.C. 2013) (holding collection of metadata not justified by third-party doctrine), *vacated* 800 F.3d 559 (D.C. Cir. 2015) (holding that there was insufficient evidence that the plaintiffs' information was actually collected by NSA bulk telephone collection practices).

264. *United States v. Karo*, 468 U.S. 705, 721 (1984); *United States v. Knotts*, 460 U.S. 276, 284 (1983).

265. *United States v. Jones*, 132 S. Ct. 945, 954 (2012).

266. *Id.* at 952.

267. *Id.* at 955–57 (Sotomayor, J., concurring) ("More fundamentally, it may be necessary to reconsider the premise that an individual has no reasonable expectation of privacy in information voluntarily disclosed to third parties."); *Id.* at 963–64 (Alito, J., concurring).

268. ADAM SMITH, *LECTURES ON JURISPRUDENCE* (R. L. Meek et al. eds., 1766); ADAM SMITH, *WEALTH OF NATIONS* (Simon & Brown ed., 1776).

B. *Evolutionary “Mismatch” and its Effect on the Rule of Law*

The inconsistency and unwieldiness within all three branches can be attributed in part to the mismatch between the adaptive capabilities of the legal system and the entities it regulates. This dynamic is characterized by the legal system’s inherently slow and clumsy attempts to “catch up” with the nimble adaptations of businesses and individuals. This behavior accords with the Red Queen phenomenon, “an unceasing evolutionary process in which all species continue to change . . . faster and faster in order to maintain the same relative fitness.”<sup>269</sup> Adaptive agents must constantly adapt, evolve, and proliferate in order to survive in an ever-changing environment with ever-evolving opposing agents.<sup>270</sup> Just to maintain relative adaptiveness in a constantly changing environment, competitors must continually adapt to each other’s strategies and to the environment.<sup>271</sup> Increasing fitness may lead to neutral gains if competitor increases just as much, or can even lead to losses if competitors increase their fitness even more. Besides hampering effective governance, the Red Queen phenomenon can generate surprising and unintended behaviors. It may, for example, produce strange political alliances, as the interests of opposed groups come into alignment based on a common purpose. As Bruce Yandle pointed out in his article “Baptists and Bootleggers,” Baptists and bootleggers shared a mutual support of alcohol prohibition even though their values were diametrically opposed.<sup>272</sup> In other words, laws can be supported both by groups that support the law’s purpose and those who profit from undermining its purpose.

Another example is “compensating behaviors,” where people and institutions adapt to policies in ways that mitigate, or compensate for, the benefits of the policy. The idea traces to back to Sam Peltzman,<sup>273</sup> who

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269. STUART A. KAUFFMAN, *THE ORIGINS OF ORDER* 242 (1993).

270. See J.B. Ruhl & James Salzman, *Mozart and the Red Queen: The Problem of Regulatory Accretion in the Administrative State*, 91 GEO. L.J. 757, 829–49 (2003) (describing the regulatory accretion as the result of the efforts of the administrative state to keep up, like the Red Queen, with the entities it regulates); see also William M. Schaffer & Michael L. Rosenweig, *Homage to the Red Queen: Coevolution of Predators and their Victims*, 14 THEORETICAL J. POPULATION BIOLOGY 135 (1978); Lee Van Valen, *A New Evolutionary Law*, 1 EVOL. THEORY 1, 17 (1973) (describing “the Red Queen’s Hypothesis”).

271. See Richard Dawkins & J. R. Krebs, *Arms Races between and within Species*, 205 PROC. ROYAL SOC’Y LONDON 489, 489 (1979); Leigh Van Valen, *A New Evolutionary Law*, 1 EVOL. THEORY 1, 1 (1973).

272. Bruce Yandle, *Baptists and Bootleggers: The Education of a Regulatory Economist*, AM. ENTER. INST. J. ON GOV’T & SOC’Y 12, 13 (1983).

273. Sam Peltzman, *The Effects of Automobile Safety Regulations*, 83 J. POL. ECON. 677, 719 (1975).

discovered that people drive more recklessly with seat belts on. This “compensating behavior” mitigates the benefits of having the belts in the first place. Peltzmann explained this behavior by suggesting that people typically adjust their behavior in response to the perceived level of risk, becoming more careful where they sense greater risk and less careful where they feel more protected. Similarly, the anti-discrimination laws of the 1960s may have inadvertently engendered a sort of complacency regarding the “risk” of racism in American life, and perhaps even denial of its continued existence. Politicians and voters may have thus felt more comfortable supporting drug laws that disproportionately affected minorities, and may have been less vigilant in guarding against the excesses of these laws. This phenomenon may have also empowered courts to assess equal protection and selective prosecution challenges to these laws with highly demanding, even unrealistic, standards,<sup>274</sup> by, for example, requiring defendants to show discriminatory intent in their particular case despite compelling evidence of discriminatory impact,<sup>275</sup> and to show that they have been treated differently than other, similarly situated defendants.<sup>276</sup> Similarly, stringent procedural due process protections may have enabled complacency towards increasing arbitrariness in criminal punishment and unjustifiably harsh sentencing policies. These sorts of evolutionary behaviors undermine the “designed” purposes of laws and make their effects unpredictable as they collide with the complexity of the real world.

Put another way, these Red Queen and compensating behaviors illustrate the asymmetry between the legal entrepreneurship undertaken by lawyers and the centralized law-making system created by the Constitution. This structural imbalance ensures that the payoff of legal innovation currently exists in the self-interested application of the law to individual clients rather

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274. See Sklansky, *supra* note 112, at 1283 (“An excessive insistence on doctrinal consistency and simplicity has blinded equal protection law to important issues of racial injustice, including the danger that the crack cocaine penalties are the product of unconscious racism.”); see also Paul Brest, *Foreword: In Defense of the Antidiscrimination Principle*, 90 HARV. L. REV. 1, 7–8 (1976) (noting that laws not enacted out of overt prejudice may still be discriminatory in their “racially selective sympathy and indifference”).

275. Although not directly related to drug laws, the Court’s decision in *McCleskey v. Kemp*, 481 U.S. 279, 282 (1987), upholding the death penalty against challenges of racial discrimination, demonstrates this sort of logic. Compare *id.* at 292–93 (“[T]o prevail under the Equal Protection Clause, McCleskey must prove that the decisionmakers in his case acted with discriminatory purpose.”); with Randall L. Kennedy, *McCleskey v. Kemp: Race, Capital Punishment, and the Supreme Court*, 101 HARV. L. REV. 1388, 1424–25 (1988) (criticizing McCleskey by explaining that underenforcement of law along racial lines “emerges ‘naturally’ from the underlying structure of the institutions, ideas, and sentiments” of society).

276. See *United States v. Armstrong*, 517 U.S. 456, 469 (1996).

than in the thoughtful development of just and equitable policies. This sort of “legal entrepreneurship” already occurs at many junctures within the legal system. In fact, it would not be an overstatement to suggest that it is already the defining task of lawyers. Lawyers use existing statutes, regulations, common-law doctrines and other legal “tools” as adjacent possible niches in order to achieve a favorable outcome for their clients. For litigators, each unique set of facts generates a potentially new use for an existing legal rule, or a stimulus to advocate for changes to existing law. In the corporate realm, lawyers exploit regulatory complexity as an adjacent possible niche for institutions with money and resources to leverage their power relative to individuals with fewer resources, or to commit regulatory arbitrage by crafting methods to evade the spirit of regulations while following their letter. The laws can be used as adjacent possible niches to further not only the interests of the client, but the self-interest of the lawyer or the institution she works for. Mandatory minimum sentences have been used by prosecutors to leverage plea bargains with defendants before the case reaches a judge, thus increasing executive power relative to the judiciary.

Another way of describing this phenomenon is known as “Goodhart’s Law”—any target-based law will inevitably fail because those targeted by the law will adapt their behavior to evade the law’s purpose. The law was developed by economist Charles Goodhart, who proclaimed that “[i]gnoring Goodhart’s law, any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes.”<sup>277</sup> In other words, “[w]hen a measure becomes a target, it ceases to be a good measure.”<sup>278</sup> Laws do not exist in a vacuum, but their expression is influenced by those who adapt to it or use it for their own purposes.

The one-time Rawlsian bargain of the Constitution has been hopelessly outstripped by self-interested legal entrepreneurs. Rather than remedying this asymmetry, the current legal system attempts to suppress it through ever-more sophisticated legal engineering. These design-oriented remedies are doomed to fail, for they ignore that the problem is caused by limitations

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277. Charles Goodhart, *Problems of Monetary Management: The U.K. Experience*, in *INFLATION, DEPRESSION AND ECONOMIC POLICY OF THE WEST* 111, 116 (Anthony S. Courakis ed., 1981).

278. AnnJannette Rosga & Margaret L. Satterthwaite, *The Trust in Indicators: Measuring Human Rights*, 27 *BERK. J. INT’L L.* 253, 285 (2009) (quoting Marilyn Strathern, “Improving Ratings”: *Audit in the British University System*, 5 *EUR. REV.* 305, 308 (1997) (discussing applications of Goodhart’s law)).

of design in the first place—primarily the slowness of design to adapt to the distributed, entrepreneurial approach of adaptive actors.

These observations provoke a deep question of rule of law. Fallon gives three central “purposes” of the rule of law:

First, the Rule of Law should protect against anarchy and the Hobbesian war of all against all. Second, the Rule of Law should allow people to plan their affairs with reasonable confidence that they can know in advance the legal consequences of various actions. Third, the Rule of Law should guarantee against at least some types of official arbitrariness.<sup>279</sup>

Our observations suggest that the “rule of law,” as so defined, has essentially been upended in the legal system as it currently exists. Complexity, opaque laws, and delegation of judicial power—particularly the power to constrain the other branches—frustrate the latter two objectives. Planning based on legal rules is impossible because, as we have seen, one cannot even understand the supposed “rules,” much less how they may be interpreted in the future. Moreover, increasingly broad and complex rules practically ensure arbitrary enforcement.

These problems are not flaws so much as intrinsic to the “design.” In response to regulatory arbitrage that almost always follows from the use of simple, target-based legal rules, Congress has shifted to a strategy of passing extremely broad and complex statutes that bring almost all possible human conduct under the government’s regulatory ambit, and then delegating enforcement power almost entirely to the executive branch. The Volcker Rule provides an example from banking law. In criminal law, as explained above, the *de facto* position has become that almost every human action may be considered criminal, and prosecutors are given exceedingly wide discretion to decide whether to bring charges. A similar situation can be found within the judicial branch, as simple judicial doctrines become ever-more complex as exceptions are carved out and nuances recognized. It is a no-win situation: either we have simple, transparent rules that can easily be evaded, or we have broad, principle-based regulations where the regulator makes a discretionary, *ex post* decision as to whether the law has been violated.<sup>280</sup> Thus, the law is either impotent, or is not really “law” at

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279. Fallon, *supra* note 1, at 7–8.

280. See Lawrence G. Baxter, *The Rule of Too Much Law? The New Safety/Soundness Rulemaking Responsibilities of the Federal Banking Agencies*, 47 CONSUMER FIN. L.Q. REP. 210, 211–14 (1993) (describing the dilemma between rules-based and principles-based regulation: that inflexible rules allow for evasion, but principles are too discretionary and may violate the rule of law).



all. Either way, this situation poses a major threat, as it shows that the rule of law in our society has, in some ways, broken down. Without reliable legal institutions, people may resort to extralegal self-help and conflict resolution, thus thwarting Fallon's first identified purpose against anarchy and bringing the problem full circle.

The "rule of law," at least as conventionally understood, may be characterized as a sort of "design," presumed superior in theory but that evolves beyond its initial plan. Like constitutional design, the rule of law is a self-contradictory concept, in that it is meant to be enduring and consistent, yet sufficiently flexible to provide justice in particular cases and to evolve in response to changing norms. Perhaps there is a better way to achieve the goals contemplated by the concept of rule of law, such as fairness and non-arbitrariness, than the institutions that currently exist to effectuate it.

### *C. Towards an Evolutionary View of the Legal System*

The conclusion that the ultimate outcomes of laws are not prestatable, and that the legal system itself emerges organically rather than being designed, challenges the fundamental assumption that underlies the current ubiquitous reliance on the legal system as a tool for social control. Simply put, the system presumes that the law will accomplish what it intends to accomplish. But if the law enables unprestatable creative adaptations, it is impossible to predict—much less socially engineer—outcomes using centralized law-making. Laws are the beginning rather than the end point, the enablers of an elaborate complex evolutionary process between legal institutions and society.

How to generate a constitutional order of "meta-institutions" is a deep problem about which we know very little. An early step might be to develop in appropriate detail a set of metrics or performance criteria for complex, creative, nonalgorithmic systems. Optimality is often a design goal for simple systems. But unpredictability and emergence make optimality and other traditional performance criteria inappropriate for complex creative systems such as the legal system. Performance in complex creative systems is inherently open-ended. Thus, any set of traditional benchmark tests will necessarily fail to consider most of the possible states and contingencies for the system.

The complexity theory literature demonstrates that attributes such as redundancy, degeneracy, adaptivity, diversity, and resilience often predict performance in unforeseen situations. Perhaps a first step in building more effective alternatives would be to create metrics to measure these and other

attributes in meaningful ways, leaving room for metrics and possibilities that might be emergent over time.

The legal system may be able to learn from developments in multi-robot systems, which have moved away from engineered “designs” and towards machine learning, where systems learn from data rather than only following programmed instructions. As Dahl et al explain:

[m]achine learning (ML) is a means of automatically generating solutions that perform better than those that are hand-coded by human programmers. Such improvement is possible in problem domains where optimal solutions are difficult to identify, i.e., when there are no models available that can accurately relate a system’s dynamics to its performance. One such domain is the control of multi-robot systems.<sup>281</sup>

In the perfectly algorithmic context of multi-robot systems pursuing a fixed, measurable goal, we nevertheless see a movement away from traditional models of engineering and design in an algorithmic context to that of complex, evolutionary systems, where the rules themselves evolve in response to changing circumstances. A similar paradigm shift is needed in the context of creative complex systems, particularly the legal system.

A parallel to the world of medicine, especially the development of personalized medicine, may be instructive. Randomized clinical trials (RCT), in which treatments are tested in randomized, double-blind studies divided into treatment and control groups, were once considered the gold standard of evidence-based medicine. The development of more sophisticated statistical methods, combined with studies showing the empirical shortcomings of RCTs, however, have called the efficacy of RCTs into question.<sup>282</sup> Eppstein et al. conducted a study comparing RCT to an alternative approach called team learning, in which teams of care providers exchange experiences and information and discuss how to optimize treatment protocol without use of a formal RCT study.<sup>283</sup> The alternate methods performed differently depending on the complexity of the problem. In simple problems where the features of the medical procedure acted independently, meaning that the outcome was based on “mono-

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281. Torbjørn S. Dahl et al., *A Machine Learning Method for Improving Task Allocation in Distributed Multi-Robot Transportation*, in *COMPLEX ENGINEERED SYSTEMS: SCIENCE MEETS TECHNOLOGY* 307, 308 (Braha et al. eds., 2006).

282. See, e.g., John P. A. Ioannidis, *Why Most Published Research Findings Are False*, in *18 CHANCE* 40, 44 (2005).

283. Margaret J. Eppstein et al., *Searching the Clinical Fitness Landscape*, 7 *PLOS ONE* 1, 2–3 (2012).

causal” factors, RCTs slightly outperformed team learning. As interconnectedness of causal factors increased, meaning that outcomes tended to be based on multi-causality, however, team learning outperformed RCTs. The greater the multi-causality, the better the performance of team learning in comparison to RCTs.<sup>284</sup>

Because biology and medicine almost always involve complex systems with multi-causal pathways, Eppstein et al.’s work suggests that an approach akin to team learning may be superior to RCTs. Kauffman et al. further explain why RCTs fail so dramatically in multi-causal settings.<sup>285</sup> First, randomized studies attempt to isolate the casual effect of the treatment by eliminating confounding factors, but “such controlled stratification cannot be applied to the thousands of possible factors that influence the outcome when we do not know what those factors are. Consequently, randomization neglects the vast space of information about causal factors that likely differ between individuals and might interact with each other, thereby leading to a multi-causal effect on the outcome, such that randomization might not average away these causative effects.”<sup>286</sup> Second, RCTs produce protocols based on an idealized “average” person that do not take into account the unique characteristics of individuals.<sup>287</sup> Finally, the authors note that the regulatory “best-practice” formulary of hospitals ensure that treatment will be homogenous and disincentives experimentation and innovation in medicine.<sup>288</sup>

A parallel to RCTs can be seen in modern constitutional design. In the United States and most of the western world, a “designed” system of legal institutions, beginning with constitutional principles, is considered to be the “gold standard” of political theory. Like RCTs, however, the framework of legal “design” may have irredeemable flaws. Design-based laws may work in systems with low epistasis, but they are less able to cope with interconnected, multi-causal developments. Laws assume a linear relationship between the law’s stated intent and its real-world effect. For example, laws outlawing certain drugs assume that the law will deter users and sellers of those drugs. But the reality of implementation often defies this assumption. The real-world effect of drug prohibition laws was to act as adjacent possible niches enabling the creation of highly lucrative black

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284. *Id.*

285. Stuart Kauffman et al., *Transforming Medicine: A Manifesto*, SCI. AM. WORLDVIEW, 2014, at 28, 29, [http://www.scientificamerican.com/wv/assets/2014\\_SAWorldView.pdf](http://www.scientificamerican.com/wv/assets/2014_SAWorldView.pdf).

286. *Id.* at 30.

287. *Id.*

288. *Id.* at 30–31.

markets by entrepreneurial drug traffickers. In the constitutional realm, constitutional provisions, such as the division of government into three branches, were designed to enforce separation of powers so that each branch of government would have incentives to prevent the others from overstepping their bounds and abusing their power. In reality, as explained above, separation of powers has enabled a sort of “assembly line” model of justice with a division of labor between the branches, where the specializations of each drives the growth, efficiency and ultimately power of the government as a whole.

Of course, economic analysis in law has come a long way from the first crude utilitarian calculations. Increasingly sophisticated economic models have been employed to calculate the predictive effects of policies on human and institutional behavior, especially in administrative law.<sup>289</sup> However, for the same reason that economic models cannot ever capture the true complexity of the economy or effectively predict entrepreneurial innovations,<sup>290</sup> neither can such models entirely map the potential interactions of a proposed law with the rest of the legal framework, much less with the entities that the law purports to regulate. Innovation in the law involves not only manipulation of already-existing laws and doctrines as adjacent possible niches, it involves creations of entirely new laws and doctrines altogether—a non-deterministic process which cannot be predicted by algorithm.

Like the RCTs, the constitutional “design” system imposes a homogeneous, centralized model of law-making that prizes uniformity and presumes a “floor” of best practices for law. Similar to the RCTs that assume a phantom “average” person, the constitutional design model does not sufficiently take into account variations across place and time that may dictate the need for diverse and flexible policies. Moreover, the uniformity of the model discourages innovations that deviate from accepted norms but that may ultimately provide a better alternative. This observation raises yet a further criticism of the Rawlsian bargain. We speak as if there are multiple

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289. See, e.g., Alexander Boer & Tom van Engers, *An Agent-Based Legal Knowledge Acquisition Methodology for Agile Public Administration*, in PROCEEDINGS OF THE 13TH INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND LAW 171, 171–72 (Kevin Ashley ed., 2011); Marcia R. Freisen et al., *Exploring Emergence Within Social Systems with Agent Based Models*, in INTERDISCIPLINARY APPLICATIONS OF AGENT-BASED SOCIAL SIMULATION AND MODELING 52, 53–54 (Diana F. Adamatti et al. eds., 2014).

290. Koppl et al., *supra* note 20, at 2 (explaining that the typical model used in policy evaluation is a “low-dimensional approximation to a possibly high-dimensional reality” and that “[t]his modeling strategy is generally satisfactory only if the prediction such models can generate are reliable enough and specific enough to guide policy”).

persons behind the veil. But in reality, of course, we have *one* person *imagining* what might go on behind the veil. The diversity of persons, then, is entirely spurious, and we really just have the philosopher's idea about the preferences and reasoning of some ideal typical agent.<sup>291</sup> We lack the crowd-sourcing logic of true epistemic diversity, and are limited by the vision and creativity of the particular person *imagining* dialogue in the "original position."<sup>292</sup>

We advocate a strategy of moving away from *designing* optimal legal institutions, and instead think about *growing* institutions through flexible, evolutionary learning akin to Eppstein's team learning model. Given the frame problem and the ever-changing phase space, our desired aggregate outcomes cannot even be completely defined, much less achieved through social engineering. Thus, we suggest shifting from predefining optimal institutions in the abstract to generating superior methods of institutional cultivation and adaptation. This approach can take cues from personalized medicine, which aims to individualize treatment through learning based on the aggregation of anecdotal data generated in real time. Instead of relying on the "false certainty" obtained through the one-size-fits-all medicine model, personalized medicine seeks to define the multi-causal factors in treatment by exploiting the data cloud surrounding individual patients. A similar approach could be taken in law by empirically evaluating the efficacy of a variety of legal regimes by analyzing their outcomes in real time.

Of course, we recognize that machine learning is only effective to a point. It can powerfully test the empirical presumptions underlying current policies and suggest alternatives from among a predefined landscape of possibilities. It can help define which institutional configurations may best achieve certain outcomes, such as resolution of the frame problem. Machine learning, however, can never replace human discretion or value-based judgments—they can merely be used to better inform professionals that "combine expertise based on general principles with judgment based on specific circumstances."<sup>293</sup> In other words, novelty intermediaries in the law will continue to flourish. But the suggestion remains that we should

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291. As noted by Robert Nozick, any utopia conceived and designed by someone based on their own preferences—or the hypothetical preferences of some idealized, average constituent—is likely to be a dystopia for many others; thus, it is impossible to make prescriptions that in fact, a priori, somehow reconcile these heterogeneous preferences and interests, particularly far into the future. See ROBERT NOZICK, *ANARCHY, STATE AND UTOPIA*, 297–98 (1974).

292. See Scott Gordon, *The New Contractarians*, 84 J. POL. ECON. 573, 576 (1976).

293. Koppl et al., *supra* note 20, at 20.

embrace broader bottom-up strategies to evolve and proliferate institutions and the methods of policy-making.

Though ideologically neutral on its face, this evolutionary method has embedded normative implications. Most obviously, an adaptive learning approach to legal evolution would work best under conditions that best facilitate information transfer and learning. Just as personalized medicine is capable of the richest conclusions from a large, diverse data-set of treatments and hindered by uniform, best-practice medicine, real-time analysis of legal institutions would best function with diverse data-sets. This conclusion accords with several of our previous observations. We have noted that the frame problem necessitates flexible adaptation of the legal system of changing frames or paradigms. Evolution-conscious theories like living constitutionalism attempt to address this problem from one dimension—constitutional interpretation and construction by judges. But the problem is not merely doctrinal, it is structural as well. By definition, algorithmic systems cannot change their frame of analysis. Therefore, “systems concentrating decision making in a small number of ‘experts’ may be less adept at updating their frames than systems distributing decision making across a relatively large number of people.”<sup>294</sup>

Within the current federal justice system, nine justices are responsible for interpreting and applying a constitution to a diverse nation of more than 300 million people. Such a centralized system of decision-making is highly constrained in cognition, and consequently, the range of frame changes it can consider. The other two branches fare little better—a national legislature totaling 535 people and an executive branch headed by one president. It is no wonder that such a highly concentrated system has become so unwieldy, as the inherent cognitive limitations of this small group of individuals prevent the information transfer necessary to ensure smooth adjustments in frames in response to changing circumstances. By contrast, a more dispersed decision making system would increase the flow of knowledge through distributed actors and its percolation up to the legal system. Policy “entrepreneurs” would notice, and exploit, new opportunities in the adjacent possible, thus contributing to adjustments in the frame. The accumulation of these adjustments could lead to larger frame changes over time. These innovations would be non-algorithmic.

Such attempts to “design” away innovation fail to recognize that “policy can influence the allocation of entrepreneurship more effectively than it can

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294. *Id.* at 23.

influence its supply.”<sup>295</sup> Instead of trying to impose design on the entrepreneurial legal world, the legal system should encourage the allocation of entrepreneurship to more effective policy-making. The abundance of legal entrepreneurs should be viewed as a resource, not an adversary; perhaps legal institutions may be reconfigured in a more “open source” manner, drawing on crowd-sourced, distributed knowledge so as to adapt more efficiently to new information.

#### CONCLUSION

We are against design, not because we oppose planning and foresight. Not because we oppose action to make a better future. We are against design because it is impossible. Constitutional design fails because any constitutional clause, mechanism, amendment, language, passage, provision, or principle becomes a tool that unknown persons will use in unknowable ways for unknowable ends. We must, therefore, eschew the “conceit” of the “man of system” that Adam Smith described.

The “man of system,” Smith explained,

seems to imagine that he can arrange the different members of a great society with as much ease as the hand arranges the different pieces upon a chess-board. He does not consider that the pieces upon the chess-board have no other principle of motion besides that which the hand impresses upon them; but that, in the great chess-board of human society, every single piece has a principle of motion of its own, altogether different from that which the legislature might choose to impress upon it.<sup>296</sup>

This intuition was also echoed by Thomas Jefferson. Reflecting on the American constitutional experiment, he argued that the Constitution should be reconsidered every generation. As he explained:

I am not an advocate for frequent changes in laws and constitutions, but laws and institutions must go hand in hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truths discovered and manners and opinions change, with the change of circumstances, institutions must advance also to keep pace with the times. We might as well require a man to wear still the coat

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295. *Id.* at 26 (quoting William J. Baumol, *Entrepreneurship: Productive, Unproductive, and Destructive*, 98 J. POL. ECON. 893, 893 (1990)).

296. ADAM SMITH, *THE THEORY OF MORAL SENTIMENTS* 212 (6th ed. 1759).

which fitted him when a boy as civilized society to remain ever under the regimen of their barbarous ancestors.<sup>297</sup>

We share Jefferson's openness to constitutional change, but we go further. We argue not only for institutional advancement, but for thinking beyond institutions entirely—or at least our ability to centrally design and control them. In our view, the idea of law as simultaneously constraining and enabling allows institutions to evolve over time, and ensures that institutions themselves are ever-changing. Rather than trying to suppress this evolution through “design,” we should focus on attempting to grow the conditions that enable it to flourish.

We support adaptation and change, and yet we are boxed in by our own argument. We speak of “institutional cultivation and adaptation” and “muddling through” without offering a plan for the future. But, of course, any plan would be a design. We criticize design without having, as it were, some carefully drafted meta-design to solve all constitutional problems. But if our critique of design is right, then it would apply with equal force to any “meta-design” we might offer. We are good at spotting problems, not so good at finding solutions. But our assumption is that many solutions in fact emerge naturally and spontaneously as actors—not foresighted social engineers—problem-solve and interact in local contexts and derive opportunities for creating individual and social value and welfare. Thus our call can be seen as a call for heterogeneity in emergent, comparative and evolving institutions. However, our very argument tells us that there are no solutions if “solutions” must be definitive, permanent, and certain. Indeed, if definitive solutions are not possible, perhaps, “[i]t is better to hear the rebuke of the wise, than for a man to hear the song of fools.”<sup>298</sup>

Our argument may be unsatisfying because it does not tell us much about how to craft a better constitution. For us, the very question of “better” design raises many additional questions, about better for (and according to) whom, and compared to what counterfactual. Even the constitution constantly yields possibilities for interpretation, innovation and cooptation—for better or worse, depending on the constituency in question. Thus our reticence to offer solutions and general skepticism can, in effect, be seen as nihilistic. There is some truth in such complaints. But they do not address the logic of our argument or the evidence we present. If our argument is unpalatable, it is not therefore untrue. Indeed, our intent has not

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297. Thomas Jefferson, *Letter to Samuel Kercheval*, in 10 THE WRITINGS OF THOMAS JEFFERSON 42–43 (Paul L. Ford ed., 1905).

298. *Ecclesiastes* 7:5.



been to offer solutions, but to point out a problem. We hope to start a dialogue on an issue that is all-too-pervasive but not widely acknowledged. The assumption that design works is so deeply ingrained in our thinking that we are usually not fully conscious of it. We hope to have put this assumption under a spotlight and cast doubt upon it.

If we are, perhaps, arguing against the grain, we do not want to suggest that our argument is unprecedented. The economist Ludwig Lachmann often repeated, “[t]he future is unknowable, though not unimaginable.”<sup>299</sup> We have mentioned Charles Lindblom’s notion of “muddling through.”<sup>300</sup> We have quoted Adam Smith.<sup>301</sup> We have quoted David Hume, expressing fear of abrupt political change with the words, “a regard to liberty, though a laudable passion, ought commonly to be subordinate to a reverence for established government.”<sup>302</sup> Many other examples could be cited, including (again) *Ecclesiastes*. “Because to every purpose there is time and judgment, therefore the misery of man is great upon him. For he knoweth not that which shall be: for who can tell him when it shall be?”<sup>303</sup> There is no algorithmic solution to the problem of constitutional design, and thus no substitute for humility, alertness, open-mindedness, wisdom, and, above all, dialogue.

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299. Ludwig M. Lachmann, *An Austrian Stocktaking: Unsettled Questions and Tentative Answers*, in *NEW DIRECTIONS IN AUSTRIAN ECONOMICS* 3 (Louis M. Spadaro ed., 1978). The uncertainties of the future are further echoed by a host of other social theorists, for example Karl Popper, Frank Knight, Joseph Schumpeter, Max Weber, Robert C. Merton, Georg Simmel, and many others.

300. Lindblom, *supra* note 81, at 88.

301. SMITH, *supra* note 296, at 233–34.

302. 6 DAVID HUME, *THE HISTORY OF ENGLAND* 320 (1889).

303. *Ecclesiastes* 8:6–7.