

Against Design

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Institutional economics suggests institutional design. 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”. Like organisms, institutions are adaptive functional wholes. It is impossible to know in advance how an institution will change and what interests it may serve or harm in the future. The view that institutions are always changing in unpredictable and unprestateable ways seems to follow from the idea of creative dynamics as developed by Koppl, Kauffman, Felin, and Longo (2014).

We examine the history of interpretations of the US Constitution to illustrate the unpredictable and unprestateable dynamics of institutional change. 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 example, 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.”

We must reconsider governance 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 unprestateable 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.

Introduction

From modern constitutional theory there has emerged a common emphasis on the rule of law—a set of neutral, universally-applicable legal rules.¹ The elevation of the rule of law over the rule of man² has enabled a level of freedom and prosperity previously unknown to humanity.³ 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.⁴ These constitutions aspired 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,⁵ they ultimately placed their faith in the power of 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.⁶ Some have alleged that the Constitution is flawed and that the institutions of American

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

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 US (1 Cranch) 137 (1803), in definitively establishing the institution of judicial review).

3 See Daron Acemoglu, Simon Johnson and James A. Robinson, *Institutions as a Fundamental Cause of Long-Run Growth*, 389-90, in HANDBOOK OF ECONOMIC GROWTH, VOL. IA, (eds. Philippe Aghion and Steven N. Durlauf 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 JEAN-JACQUE ROSSEAU, *THE SOCIAL CONTRACT* (1762); JOHN LOCKE, *SECOND TREATISE OF GOVERNMENT* (1689).

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 (1968); see also OLIVER WENDELL HOLMES, *THE COMMON LAW* (1881).

6 See, e.g., SOTIRIOS A. BARBER, *CONSTITUTIONAL FAILURE* (forthcoming 2014); Jack Balkin, *The Last Days of Disco: Why the American Political System is Dysfunctional*, 94 B.U. L. REV. 1159 (2014); SANFORD LEVINSON, *FRAMED: AMERICA’S 51 CONSTITUTIONS AND THE CRISIS OF GOVERNANCE* (2012); KAY LEHMAN SCHLOZMAN ET AL., *THE UNHEAVENLY CHORUS: UNEQUAL POLITICAL VOICE AND THE BROKEN PROMISE OF AMERICAN DEMOCRACY* (2012); THOMAS E. MANN & NORMAN J. ORNSTEIN, *IT’S EVEN WORSE THAN IT LOOKS* (2012); BRUCE ACKERMAN, *THE DECLINE AND FALL OF THE AMERICAN REPUBLIC* (2010).

governance need redesigning, as reflected in calls for a new constitutional convention.⁷ We suggest a bold alternative—that the very concept of institutional “design” may have outstripped its usefulness, and may even be unattainable. Our contention 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 is particularly compelling with regard to legal institutions. The most well-known proponent of spontaneous order, Friedrich Hayek, distinguished between economy, characterized by a “unitary hierarchy of ends,” where the purpose is known in advance and knowledge of how to achieve it is given, and catallaxy, or the spontaneous order brought about not through intentional planning but by “the mutual adjustment of many individual economies in a market.”⁸ Whereas the success of an economy can be evaluated using traditional engineering principles, the catallaxy cannot be evaluated in terms of any starting purpose, as “the order of the market rests not on common purposes but on . . . the reconciliation of different purposes for the mutual benefit of the participants.”⁹ Similarly, Niall Ferguson has posited that history may be characterized as a clash between hierarchies, or “vertical

⁷ Perhaps most prominently, scholars, politicians and others have called for a constitutional amendment to overturn the U.S. 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 generally LAWRENCE LESSIG, *REPUBLIC LOST—HOW MONEY CORRUPTS CONGRESS, AND HOW TO STOP IT* (2011). For a summary and discussion of legal scholarship on the subject, see Jack M. Beerman, *The New Constitution of the United States: Do We Need one and How Would we Get One?*, 94 B.U. L. REV. 711 (2014).

⁸ HAYEK, *Law, Legislation and Liberty*, vol. II, *The Mirage of Social Justice*, 108–9 (1973).

⁹ *Id.* at 109–110.

organizations characterized by centralized and top-down command, control, and communication, and networks, or “spontaneously self-organizing, horizontal structures.”¹⁰ Hayek spoke of the impossibility of effective centralized economic planning given the ubiquity of unintended consequences, but he 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.¹¹ In other words, although economic planning would be futile, legal planning would be valuable.

In our view, the distinction made by Hayek and Ferguson is illusory. What appear to be economies are really catallaxies; hierarchies are really networks. Legal institutions, designed to be economies, become catallaxies as they evolve in response to shifting political and social environments, unforeseen and unforeseeable by the designers of these institutions. All 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 biological evolution: Legal “designs” are exploited within the adjacent possible, meaning that they are appropriated for purposes not imagined by their designers. In the aggregate, this process creates spontaneous legal orders that emerge from the interactions of adaptive agents within the legal system, and society at large, that could not have been thought of, much less fully explained, by any single individual within the system. Because legal institutions are always changing, then 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.

10 Niall Ferguson, *Networks and Hierarchies*, AM. INTEREST (June 9, 2014), available at <http://www.the-american-interest.com/articles/2014/06/09/networks-and-hierarchies/>.

11 See generally HAYEK, *supra* note 8.

We derive our framework from “creative economics,” as described in the article *Economics for a Creative World*.¹² 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. In Part III, we use our 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, partially but 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 of 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 in which designers create a plan based on known constraints and resources in order to achieve some predefined objective.¹³ In other words, the “frame” of the problem, or the full set of relevant considerations necessary to define

¹² Roger Koppl et al, *Economics for a Creative World*, ____ J. INSTIT. ECON. ____ 1 (2014).

¹³ See generally A. NEWELL & H. SIMON, *HUMAN PROBLEM SOLVING* (1972).

its context and possible solutions,¹⁴ is assumed to be already known. 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 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.¹⁵ 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.¹⁶ Whether the amendment process is adequate, however, depends on the accuracy of assumption behind Article V

14 For a complete discussion of the “frame problem” and how it limits algorithmic reasoning, see Zia, et al, *The Prospects And Limits Of Algorithms In Simulating Creative Decision Making*, 14 ECO 3, 89-109 (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.”).

15 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. CONSTIT. ART. V.

16 Compare Robert G. Dixon, *Article V: The Comatose Article of Our Living Constitution*, 66 MICH. L. REV. 931 (1967-1968) (calling the convention process in Article V a “dead letter”) and Akhil Reed Amar, 94 COLUM. L. REV. 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*, at 272 in CONSTITUTIONAL CULTURE AND DEMOCRATIC RULE (2001 eds. John Ferejohn, Jack N. Rakove, Jonathan Riley) (defending the high bar set by the amendment process as necessary to maintain permanency of constitutional rule).

—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.

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,¹⁷ 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 and for dispersal of power to safeguard against tyranny.¹⁸ The system of federalism, which delegated powers between the states and the federal government,¹⁹ 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.²⁰ Under the system of separation of powers, the three branches of government would divide responsibilities over governance,

17 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 the 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 14, 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”).

18 See FEDERALIST no. 39, at 257 (J. Cooke ed. 1961) (“[T]he proposed Constitution . . . is in strictness neither a national nor a federal constitution; but a composition of both.”).

19 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. AM. 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.”).

20 See FEDERALIST no. 39, *supra* note 16; *New State Ice Co. v. Liebmann*, 285 U.S. 262 (1932) (Brandeis, J.) (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”).

and numerous checks and balances would ensure the need for cooperation between the branches on everything from passage of laws to the nomination of judges.²¹ Such division of powers was intended to ensure that each branch would check the others' ambitions, for the ultimate protection of individual liberty.²² 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.²³ 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.²⁴

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 design²⁵ was deeply rooted in contemporary philosophical movements, particularly the French Enlightenment.²⁶

21 See FEDERALIST no. 47 (“The accumulation of all powers, legislative, executive, and judiciary, in the same hands . . . may justly be pronounced the very definition of tyranny.”).

22 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”).

23 FEDERALIST no. 51 (“In republican government, the legislative authority necessarily predominates. The remedy for this inconveniency is to divide the legislature into different branches . . .”).

24 See FEDERALIST no. 84 (arguing that the Constitution's structural checks rendered a Bill of Rights unnecessary); ANTIFEDERALIST no. 84 (criticizing the proposed Constitution for not including a declaration of rights).

25 See generally Neil Duxbury, *Faith in Reason: The Process Tradition in American Jurisprudence*, 15 CARDOZO L. REV. 601 (1994).

26 Harold J. Berman, *The Impact of the Enlightenment on American Constitutional Law*, 4 YALE J. L. & HUM. 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).

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 “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. 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.²⁷ 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:

the 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.²⁸

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.²⁹ However, the

²⁷ 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”).

²⁸ DAVID STRAUSS, THE LIVING CONSTITUTION 1 (2010).

²⁹ See Oliver Wendell Holmes, *The Path of the Law*, in COLLECTED LEGAL PAPERS 167 (1920); see also Hathaway, Oona A., *Path Dependence in the Law: The Course and Pattern of Legal Change in a Common Law System*, 86 IOWA L. REV. ___, 103-04 (2000) (discussing the notion of common law

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 specifically contemplated and enacted by individuals in within centralized institutions, rather than emerging organically from the dispersed actions of many individuals.³⁰ 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.

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 entailing law. The abiding presumption has been that, like the “laws of physics,” legal institutions are “law-governed,” in the sense “that there is a master set of equations . . . describing the dynamics of the system.”³¹ Thus, legal theories presume that “everything that happens as the system unfolds was already implicit in the initial conditions and the assumed laws of motion.”³² In other words, 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.³³ The lack of “entailing law” thus describes the legal system at two levels: unlike the “laws of physics,” legal systems are not governed by entailing laws such as “laws” of evolution).

30 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.

31 Koppl et al, *supra* note __, at 4.

32 *Id.* at 5.

33 Zia et al explain 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.*” 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. *Supra* note __, at 95. 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.

economics and behavior; and, correspondingly, humans cannot design stable, predictable institutions whose form endures over time based on fixed entailing laws.³⁴

The legal system is not governed by entailing law because the full range of relevant variables that may affect a system's development—or the frame of the system—cannot be ascertained through logic, either when the system is created or as it changes over time.³⁵ 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 reality. In law-governed systems, we can “prestate the configuration space or phase space, which is given by the set of pertinent observables and parameters.”³⁶ 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 bounded state space also underlies the notion of general equilibrium and rational choice theory from 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 economic theory is comparable to “a computer that has been programmed to execute [a] master set of equations.” 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.”³⁷ While acknowledging its limitations, the legal system operates under largely the same assumption—that laws will produce predictable consequences.

Yet, in economic and legal systems the initial conditions *themselves* change in unforeseeable ways, making it impossible to compute a future trajectory with precision. The Constitution was, in a

34 See Stuart Kauffman, *Beyond Entailing Law?*, NATIONAL PUBLIC RADIO (Jun. 20, 2011), <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”).

35 See Zia et al, *supra* note 13, at 95-97.

36 Koppl et al, *supra* note __, at 6.

37 Koppl et al, *supra* note __, at 4-5.

sense, meant to serve as a sort of “entailing law,” a 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.

These laws do not merely constrain societal agents by defining the actions required by particular circumstances, but they also enable these adaptive agents’ innovation of 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 (and the future trajectory of the system is not mathematizable), it is impossible to predict with certainty what the reaction to a given law will be. This unprestatability 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.³⁸ 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.”³⁹ 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 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.

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

38 STUART KAUFFMAN, *REINVENTING THE SACRED* ___ (2008).

39 Kauffman, *supra* note 33.

institutions beyond their original design in order to adapt to shifting environments. No single individual holds a complete understanding, nor could she, of the complete “catallaxy” of the legal code and its sprawling enforcement mechanisms.⁴⁰ 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 improvisational comedy, the system enables that which it becomes. 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 finding innovative ways to comply in a technical sense while evading the law’s purpose or “spirit.”⁴¹ Ultimately, adaptive agents, both within and outside of the legal system, use the law as a tool to fulfill their given objectives. Given the ceaseless creativity in the myriad of societal actors mutually adapting to the new law, uncertainty is an innate feature of law.

For these reasons, the creative dynamics of social evolution place the “design” of institutions more or less out of our hands. Although we base on 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. Law and economics scholars, beginning with Coase and Calabresi, argue that legal institutions are a type of marketplace governed by

⁴⁰ Hayek, *supra* note 8.

⁴¹ See generally Victor Fleischer, *Regulatory Arbitrage*, 89 TEX. L. REV. 227 (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., Partnoy, Frank, *Financial Derivatives and the Costs of Regulatory Arbitrage*, 22 J. CORP. L. 211 (1996); A. Michael Froomkin, *The Internet As A Source Of Regulatory Arbitrage*, in BORDERS IN CYBERSPACE (eds. Brian Kahin and Charles Nesson 1997). However, it also has permutations in various other areas of law. See Pamela Samuelson, *Intellectual Property Arbitrage: How Foreign Rules Can Affect Domestic Protections*, 71 U. CHI. L. REV. 223 (2004) (analyzing arbitrage in intellectual property law); MARK PIETH, FINANCING TERRORISM (2002) (discussing how arbitrage is used in financing terrorism).

the laws of economics.⁴² This insight led Coase to develop his theory of market-based negotiation of legal entitlements, based on a hypothetical world absent transactions costs.⁴³ The view of law as marketplace has remained the fascination of generations of public choice theorists.⁴⁴ But these trail-blazing scholars have been criticized for their heavy reliance on neoclassical economic theory, particularly rational choice theory. As behavioral economics rose in prominence, a new wave of scholars, led by 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.⁴⁵ At the same time, critical legal studies 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.⁴⁶ Further, like economics

42 See, e.g., Ronald Coase, *The Problem of Social Cost* 3 J. LAW & ECON. 1 (1960); Ronald Coase, *The Nature of the Firm*, 4 ECONOMICA 386 (1937); GUIDO CALABRESI, *THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* (1970).

43 See Coase, *The Problem of Social Cost*, *supra* note 39.

44 See generally Michael Crew & Charlotte Twight, *On the Efficiency of Law: A Public Choice Perspective*, 66 PUB. CHOICE 15 (1990); 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); Dwight R. Lee, *Politics, Ideology, and the Power of Public Choice*, 74 VA. L. REV. 191 (1988); Tollison, *Public Choice and Legislation*, 74 VA. L. REV. 339 (1988); RICHARD POSNER, *ECONOMIC ANALYSIS OF LAW* (1973).

45 See, e.g., C Jolls, [CR Sunstein](#), & [R Thaler](#), *A behavioral approach to law and economics*, 50 STAN. L. REV. 1471 (1997); Russell B. Korobkin and Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CALIF. LAW REV. 1051 (2000); On Amir and Orly Lobel, *Stumble, Predict, Nudge: How Behavioral Economics Informs Law and Policy*, 108 COLUM. L. REV. 2098 (2008); Richard H. Thaler and Cass R. Sunstein, *Libertarian Paternalism*, 93 AM. ECON. REV. 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 (2002).

46 See, e.g., Cheryl Harris, *Whiteness as Property*, 106 HARV. L. REV. 1707 (1993); Duncan Kennedy, *The Structure of Blackstone's Commentaries*, 8 BUFFALO L. REV. 205, 209 (1979); Mark Kelman, *Misunderstanding Social Life: A Critique of the Core Premises of Law and Economics*, 33 J. LEGAL EDUC. 274 (1983). See also ROBERT HALE, *FREEDOM THROUGH LAW: PUBLIC CONTROL OF PRIVATE GOVERNING POWER* (1952).

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.⁴⁷

Like law and economics scholars, we see the law as a marketplace governed by economic dynamics. Where we depart is from the prevailing assumptions regarding the nature of 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.⁴⁸ 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. We assert that the history of our own 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

47 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 de-fine 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).

48 Koppl et al, *supra* note __, at 6.

question whether we expect legal institutions to regulate human social life in ways that are simply not possible.

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, as each system has taken cognizance of its weaknesses and evolved to incorporate the strengths of the other system. Currently, the similarities between the two systems may even subsume the differences, making the distinction between them increasingly obsolete.⁴⁹ 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. 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

⁴⁹Arthur T. von Mehren, *Some Reflections on Codification and Case law in the 21st Century*, 31 U.C. DAVIS L. REV. 659, 667-70 (1998). See also William Tetley, *Mixed Jurisdictions: Common Law v. Civil Law (Codified and Uncodified)*, 60 LA. L. REV. 677 (1999); Gunther Weiss, *The Enchantment of Codification in the Common-Law World*, 25 YALE J. INT'L L. 435 (2000).

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 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,⁵⁰ 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.

The U.S. Constitution creates a federalist system that includes a national government conscribed by enumerated and limited powers.⁵¹ 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

⁵⁰ U.S. CONSTT. ART. I SEC. 8 CL. 3.

phrase has been at the center of continuous controversy over the permissible scope of federal economic regulation since the Constitution was ratified.⁵² Perhaps most controversially, during the *Lochner* court era near the turn of the century, the Supreme Court narrowly interpreted the Commerce Clause as excluding federal regulation over purely local economic activity.⁵³ Similarly, the Court expansively interpreted substantive due process guarantees and the liberty to contract.⁵⁴ 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

51 See Steven 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 U.S. Supreme Court decision limiting the federal government’s power “mark[e]d a revolutionary and long overdue revival of of the doctrine that the federal government is one of limited and enumerated powers”); Edward 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).

52 For an argument that the meaning of the Commerce Clause was originally far narrower than how it is interpreted today, see Randy 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 CALIF. L. REV. 1331, 1336 (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).

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

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

regulations it had previously struck down.⁵⁵ The Court affirmed its new jurisprudence in *United States v. Carolene Products Company*, 304 U.S. 144 (1938), where it declared that Congress has plenary constitutional authority over economic regulation, and that laws passed to regulate the economy are entitled to a presumption of constitutionality.⁵⁶ Since this jurisprudential shift, the Court has, with limited exceptions,⁵⁷ broadly interpreted the Commerce Clause as including 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.⁵⁸

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.⁵⁹ 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

55 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 (1941) (upholding regulation of production of goods to be shipped across state lines); *NLRB v. Jones & Laughlin Steel Corp.*, 301 U.S. 1 (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 BRUCE ACKERMAN, *WE THE PEOPLE: FOUNDATIONS*, vol. 1, 268-69 (1991).

56 *Id.* at 147-48, 152.

57 See, e.g., *National Federation of Independent Business v. Sebelius*, 567 U.S. ___, 132 S.Ct. 2566 (2012) (Roberts, C.J.) (holding that federal health insurance mandate did not fall under congressional Commerce Clause Powers); *U.S. v. Lopez*, 514 U.S. 549 (1995) (striking down law regulating handguns near schools); *U.S. v. Morrison*, 529 U.S. 598 (2000) (striking down portions of Violence Against Women Act).

58 *Wickard v. Filburn*, 317 U.S. 111 (1942); *Gonzales v. Raich*, 545 U.S. 1 (2005). The bounds of this theory were drawn in *National Federation of Independent Business*, 132 S.Ct. at 16-17, 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.

rights laws on the grounds that the Amendment's enforcement provisions only applied to state action and did not extend to private conduct.⁶⁰ 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 racial discrimination on the economy in an effort to connect the Civil Rights Act to the Commerce Clause.⁶¹

The Court referenced these Congressional findings in the landmark case *Heart of Atlanta Motel v. United States*, 379 U.S. 241 (1964), 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.⁶² Consequently, the hotel's racially discriminatory practices could be regulated or banned by Congress. 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.⁶³ 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

59 Besides falling outside of the Commerce Clause, the Act's opponents argued that 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).

60 *Civil Rights Cases*, 109 U.S. 3 (1883).

61 See Hearings before Senate Committee on Commerce on S. 1732, 88th Cong., 1st Sess.; Hearings before Senate Committee on the Judiciary on S. 1731, 88th Cong., 1st Sess.; Hearings before House Subcommittee No. 5 of the Committee on the Judiciary on miscellaneous proposals regarding Civil Rights, 88th Cong., 1st Sess., ser. 4.

62 *Id.* at 252-53.

63 379 U.S. 294 (1964).

restrictive effect upon interstate travel by Negroes.”⁶⁴ 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.⁶⁵

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,⁶⁶ the Court’s decisions have mostly 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.⁶⁷

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

64 *Id.* at 381.

65 *Id.* at 382 (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))).

66 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 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.* (quoting Letter of June 5, 1963, quoted in G. GUNTHER & N. DOWLING, CO NSTITUTIONAL Law 3 36 (8th ed. 1970).

67 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 *supra* note ____.

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.⁶⁸

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 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.⁶⁹ According to attorney Harvey Silvergate, the average American commits three federal felonies per day.⁷⁰

Congress's authority to pass these federal criminal laws has largely been constitutionally justified under the Commerce Clause.⁷¹ The Court's expansive conception of interstate commerce has

68 Brandon L. Bigelow, *The Commerce Clause and Criminal Law*, 41 B.C. L. REV. 913 (2000) (arguing that the 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* Note, Thane Rehn, *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)

69 Alex Kozinski and Misha Tseytlin, *You're (Probably) a Federal Criminal*, in *IN THE NAME OF JUSTICE* (ed. Timothy Lynch 2009) (noting that "most Americans are criminals, and don't know it, or suspect that they are but believe they'll never get prosecuted.").

70 HARVEY SILVERGATE, *THREE FELONIES A DAY: HOW THE FEDS TARGET THE INNOCENT* (2011).

71 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 18 U.S.C.A. § 3591 et seq (providing for capital punishment for certain federal crimes); 18 U.S.C. 1111 (providing for federal punishment of first and second degree murder). Federal murder statutes, which potentially carry the death penalty, may be used to circumvent state laws that prohibit capital punishment.

aided this growth.⁷² Of particular note is the passage of the Controlled Substances Act of 1970 (CSA),⁷³ just six years after the heralded passage of the Civil Rights Act.⁷⁴ The CSA established five regulatory drug schedules, using criteria such as addictiveness and medical value,⁷⁵ although the application of these criteria has been controversial.⁷⁶ Since the passage of the CSA, Congress has added various other drug offenses to the United States Code, including mandatory minimum sentences

72As an example, take the Sex Offender Registration and Notification Act, passed in 2006. 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. See 18 U.S.C. 2250(a)(2) (A). 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., *U.S. v. Coleman*, 675 F.3d 615 (6th Cir. 2012); *United States v. George*, 625 F.3d 1124, 1129 n. 2 (9th Cir.2010); *United States v. Guzman*, 591 F.3d 83, 89–91 (2^d Cir.2010), *cert. denied*, — U.S. —, 130 S.Ct. 3487, 177 L.Ed.2d 1080, 1081 (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 on other grounds by Reynolds*, 565 U.S. at —, 132 S.Ct. at 980. The Second Circuit, however, has called into question the validity of courts’ prior rulings after the U.S. Supreme Court’s ruling that a federal health insurance mandates exceeded Congress’s authority under the Commerce Clause in *NFIB v. Sebelius*. See *US v. Robbins*, No. 12-3148 (2^d Cir. Sept. 3, 2013).

73 Controlled Substances Act of 1970, Pub L. 91-513, 84 Stat 1236 (codified at 21 U.S.C. § 801 et. seq).

74 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. Ian F. Haney Lopez, *Post-Racial Racism: Racial Stratification and Mass Incarceration in the Age of Obama*, 98 CALIF. L. REV. 101, 104 (2010); 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 (1997); David A. Skalansky, *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”).

75 21 U.S.C. § 812 (b) (2006) (listing the various schedules of drugs).

76 See, e.g., *Americans for Safe Access v. DEA*, No. 11-1265 (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); SECOND REPORT OF THE NATIONAL COMMISSION ON MARIHUANA AND DRUG ABUSE; DRUG USE IN AMERICA: PROBLEM IN PERSPECTIVE 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

possession and sale.⁷⁷ The Anti-Drug Abuse Acts of 1986 and 1988,⁷⁸ for example, contained a provision, notorious for its racially disparate impact, establishing the 100-1 quantity ratio between crack-cocaine and powder cocaine that triggered mandatory minimum sentence.⁷⁹ Congress has also enacted various fines for drug offenders⁸⁰ and sentencing enhancements for the use of weapons during drug trafficking or for being a drug felon in possession.⁸¹ State anti-drug laws have also proliferated.⁸² These laws are enforced by a multifaceted and extensive network of federal and state agencies, including the Drug Enforcement Administration, the FBI, the CIA, and hundreds of others.⁸³

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 importation of certain substances, but also

presently considered wrong.”).

77 See generally § 841 (b); Erik Luna & Paul G. Cassell, *Mandatory Minimalism*, 32 *CARD. L. REV.* 1, 12 (2010); U.S. Sentencing Comm'n, Special Report to Congress: Mandatory Minimum Penalties in the Criminal Justice System tbl. 1 11–12 (1991) (finding that, of the federal statutes imposing mandatory minimum sentences, the three most commonly used are all aimed at drug offenses).

78 Anti-Drug Abuse Act of 1986, Pub.L. 99-570, 100 Stat. 3207 (1986) (codified as amended in 21 U.S.C. § 841).

79 For an account of how the ratio was created largely in response to political pressures, see Sklansky, *supra* note 69 (describing the legislative history and the “arms race” for congressmen to appear punitive under the pressure of upcoming midterm elections).

80 See 21 U.S.C. § 844(a) (fines for simple possession); § 842 (civil fines); § 881 (forfeiture)

81 See, e.g., 19 U.S.C. § 922(g) (felon in possession statute); 18 U.S.C. § 924 (c) (use of a weapon during a federal drug crime). See generally Sara Sun Beale, *The Unintended 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).

82 See, e.g., Wayne L. Mowery, *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 (1997).

83 Drug Enforcement Administration, DEA History, <http://www.justice.gov/dea/about/history.shtml> (last visited August 13, 2014); Drug Enforcement Administration, Foreign Offices <http://www.justice.gov/dea/about/foreignoffices.shtml> (last visited August 13, 2014) (noting that DEA has grown from 1,470 agents and an annual budget of 75 million to more than 5,000 special agents, 10,000 employees and a budget of 2.4 billion dollars today), which has grown through the years to a staff of almost 10,000 employees and a budget of \$2 billion

their possession and use by individuals.⁸⁴ 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. 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.⁸⁵ 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 commerce. . . . When Congress decides that the “ ‘total incidence’ ” of a practice poses a threat to a national market, it may regulate the entire class.”⁸⁶ 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*, 317 U.S. 111, 126-27 (1942), 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.⁸⁷ 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.⁸⁸

84 *See*, 21 U.S.C. § 841(a) (2006) (“[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.”).

85 545 U.S. 1 (2005).

86 *Id.* at 17.

87 *Id.* 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.”).

88 *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, 252-253 (1964)).

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.⁸⁹ When parole and probation are included, over seven million American citizens live under the supervision of the criminal justice system.⁹⁰ 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 and prison compositions show that drug laws have greatly contributed.⁹¹ 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.⁹²

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. The disparity was highest in Iowa, where black people in Iowa were arrested for marijuana possession at a rate 8.4 times higher than white people, despite similar rates of usage for these groups.⁹³ 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

89 John Schmitt, Kris Warner, and Sarika Gupta, *The High Budgetary Cost of Incarceration 2*, Center for Economic and Policy Research (2010).

90 Ian Haney-Lopez, *supra* note __, at 104.

91 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 __, at 8. *See also United States v. Haynes*, 557 F.Supp.2d 200, 202–203 (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.”).

92 FREDERICK BLOC, *DISROBED: AN INSIDE LOOK AT THE LIFE AND WORK OF A FEDERAL TRIAL JUDGE* (2012).

93 ACLU, *The War on Marijuana in Black and White* 4, 21 (2013), available at <https://www.aclu.org/files/assets/061413-mj-report-rfs-re14.pdf>.

arrests, 62 percent of drug-related convictions and 70 percent of drug-related incarcerations.⁹⁴ 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.⁹⁵ Despite these sobering statistics, the U.S. 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. 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.⁹⁶ Therefore, the defendants could not prove that federal prosecutorial policy "had a discriminatory effect and that it was motivated by a discriminatory purpose."⁹⁷

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.⁹⁸ There is little question that individual racism plays at least some role, as recent studies of racial profiling have condemned law

94 Kathleen Sandy, *The Discrimination Inherent in America's Drug War: Hidden Racism Revealed by Examining the Hysteria Over Crack*, 54 ALA. L. REV. 665 (2002).

95 DEBORAH J. VAGINS & JESSLYN McCURDY, AM. CIVIL LIBERTIES UNION, *CRACKS IN THE SYSTEM: TWENTY YEARS OF THE UNJUST FEDERAL CRACK COCAINE LAW* i (2006). See also *Armstrong v. United States*, 517 U.S. 456, 459 (1996) (describing the 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*, 846d 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.").

96 *United States v. Armstrong*, 517 U.S. 456, 465, 470-71 (1996).

97 *Id.* at 470.

98 Compare Skalansky, *supra* note ___, at 1308 ("The federal crack penalties provide a paradigmatic case of unconscious racism."); 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 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") and 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).

enforcement officers for targeting African Americans for on-the-street questioning that would often result in arrests for petty drug crimes.⁹⁹ 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. These forces 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.¹⁰⁰ In particular, drug markets in poor communities are often located in street markets or fixed locations, whereas in rich communities they are more private.¹⁰¹ Additionally, the violence associated with the drug trade is primarily concentrated in urban black communities, where drug traders could operate in street-market fashion.¹⁰² Due to the structure of drug markets, harsh drug penalties encourage police officers to intervene much more aggressively in these communities.¹⁰³

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.¹⁰⁴ As Stuntz has explained, Fourth Amendment jurisprudence places higher protection on private homes and their curtilage than on cars and public spaces. 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

99ACLU study, *supra* note ____.

100 Stuntz, *supra* note 93, at 1798.

101 *Id.* at 1804.

102 *Id.*

103 *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.”).

104 *Id.* at 1821–24.

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.¹⁰⁵

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,¹⁰⁶ until the law was changed in 2010¹⁰⁷—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.¹⁰⁸ 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. 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. 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.¹⁰⁹

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

105 *Id.*

106 The Sentencing Project, *Federal Crack Cocaine Sentencing 1* (2010), available at http://sentencingproject.org/doc/publications/dp_CrackBriefingSheet.pdf.

107 See the Fair Sentencing Act of 2010, Pub. L. No. ____ (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).

108 See H.R. Rep. No. 99-845, pt. 1, at 11–12 (1986) (defining serious and major traffickers).

109 See *generally* Anti-Drug Abuse Act of 1986, *supra* note 73.

judges.¹¹⁰ 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.¹¹¹ 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 within the conspiracy, no matter how little their involvement.¹¹² One of the phenomena that emerged from co-opting conspiracy doctrine for this purpose was the infamous “girlfriend problem,”¹¹³ where girlfriends of crack dealers would get caught delivering a package or using drug money to feed themselves and their children. 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.

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.

110 See generally *Mandatory Minimums and Unintended Consequences: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Security 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 Conference of the U.S.); Erik Luna & Paul Cassell, *Mandatory Minimalism*, 32 CARDOZO L. REV. 1, 1 (2010); John S. Martin, Jr., *Why Mandatory Minimums Make No Sense*, 18 NOTRE DAME J.L. ETHICS & PUB. POL’Y 311 (2004).

111 Luna & Cassell, *supra* note 105. Drug mandatory minimums have been essential in producing the 95 percent plea bargain rate in the federal court system. *E.g.* U.S. SENTENCING COMM’N, 2008 ANNUAL REPORT fig.C (2008), *available at* <http://www.uscourts.gov/ANNRPT/2008/FigC.pdf>.

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

113 See Kemba Smith, *My Life Saved by Reprieve of 24-year Sentence for Crack*, CNN (Dec. 22, 2010), http://articles.cnn.com/2010-12-22/opinion/pradia.sentencing.drug.reform_1_fair-sentencing-act-crack-sentencing-structure?_s=PM:OPINION (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”).

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 uses of law for novel purposes occur 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. Madison argued in Federalist 51 that the “separate and distinct exercise of the different powers of government,” was “to a certain extent...admitted on all hands to be essential to the preservation of liberty.”¹¹⁴ Madison contended that the foundation for this separation of powers required “that each department should have a will of its own,”¹¹⁵ 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.”¹¹⁶ 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.”¹¹⁷

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.

114 FEDERALIST NO. 51.

115 *Id.*

116 *Id.*

117 *Id.*

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. 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 judiciary relative to the legislative branch.

The concept of procedural due process, found in the Fifth and Fourteenth Amendments,¹¹⁸ was originally conceived to prevent the arbitrary governmental exercise of power.¹¹⁹ 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.¹²⁰ 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

118 U.S. CONST. Amend. V (“No person shall be ... deprived of life, liberty, or property, without due process of law ...”); U.S. CONST. Amend. XIV (“[N]or shall any State deprive any person of life, liberty, or property, without due process of law ...”).

119 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 *Murray’s Les v. Hoboken Land & Improvement Co.*, 18 How. (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*, 4 Wheat. 235, 244 (1819)).

120 See *United States v. Boyd*, 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”).

jail, where his sufferings are unknown or forgotten, is a less public, a less striking, and therefore a more dangerous engine of arbitrary government.¹²¹

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.¹²² The requirements of procedural due process for criminal defendants, either explicitly stated in the Constitution or interpreted by courts, include laws defining the offense,¹²³ notice of the accusation¹²⁴ and the opportunity to defend against it,¹²⁵ and trial before an impartial jury.¹²⁶ These mechanisms were meant to contribute to the rule of law, the ultimate objective for America's burgeoning democracy.

Judicial strengthening of procedural due process, however, has produced unintended consequences that have undermined the judges' intent.¹²⁷ 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.¹²⁸

The rationale for the legality principle is that due process entitles people to fair notice of what

121 WILLIAM BLACKSTONE, 1 COMMENTARIES ON THE LAWS OF ENGLAND 136 (1765); *see also* JAMES MADISON, FEDERALIST NO. 51 ("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.").

122 *See Escobedo v. Illinois*, 378 U.S. 478, 488 (1964) (Black, J., dissenting) ("Our Constitution . . . strikes the balance in favor of the rights of the accused . . ."); *see also* 4 BLACKSTONE, COMMENTARIES 358 ("Better that ten guilty persons escape than that one innocent suffer.").

123 *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.").

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

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

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

127 *See* William Stuntz, *The Pathological Politics of Criminal Law*, 100 MICH. L. REV. 505 (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").

128 *Papachristou v. City of Jacksonville*, 405 U.S. 156, 162 (1972) ("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.' " quoting (*Lanzetta v. New Jersey*, 306 U.S. 451, 453)).

constitutes a crime.¹²⁹ 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 and require judicial interpretation that proliferates common law crimes.¹³⁰ Additionally, the principle of lenity requires that ambiguities in criminal statutes be resolved in favor of the defendant.

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.¹³¹ 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.”¹³² Otherwise, narrowly-worded statutes could give defendants loopholes to exploit.¹³³ 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 that what is listed. Additionally, sweeping statutes are often simpler to write, yet can still maintain specificity, thereby enabling legislatures to avoid the vagueness problem¹³⁴; increasing the number of nuances and caveats in a statute in order to make its application narrower presents more questions of interpretation.¹³⁵ 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

¹²⁹*Papachristou*, 405 U.S. at 162.

¹³⁰ *Chicago v. Morales*, 405 U.S. 156 (1972).

¹³¹ Samuel Buell, *The Upside of Overbreadth*, 83 N.Y.U. L. REV. 1491, 1494 (2008).

¹³² *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.”).

¹³³ *See* Buell, *The Upside of Overbreadth* 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”).

¹³⁴ William Stuntz, *The Pathological Politics of Criminal Law*, at 559 (noting that “legislatures can achieve breadth and specificity at the same time”).

¹³⁵ *See People v. Tylkoff*, 105 N.E. 2d 835, 836 (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”).

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”¹³⁶ in Supreme Court jurisprudence of the 1960s and 70s had the unintended effect of incentivizing Congress to pass overreaching criminal statutes. During this era, the Court declared that the Sixth Amendment right to counsel mandated that government defenders be appointed for indigent defendants¹³⁷; expanded the Fifth Amendment right to remain silent by requiring that arresting officers give warnings about the consequences of speaking¹³⁸; and placed a moratorium on the death penalty until it could be ensured that the legal process was fair.¹³⁹ These new restrictions, and others, were meant to expand individual freedom from unfair government action.¹⁴⁰

However, expansion of stringent procedural protections has, ironically, inadvertently contributed to the “crisis of overcriminalization.”¹⁴¹ 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.¹⁴² 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.¹⁴³ Like overbreadth, overcriminalization has been used to evade due process,

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

137 *Gideon v. Wainwright*, 372 U.S. 335 (1963).

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

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

140 *See id.* at 242 (forbidding the death penalty due to its “arbitrary and discriminatory” application).

141 *See generally* Sanford H. Kadish, *The Crisis of Overcriminalization*, 374 ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE 157-70 (1967).

142 *Id.*

143 *See* William Stuntz, *The Pathological Politics of Criminal Law*, *supra* note ____ (“Substituting an easy-to-prove crime for one that is harder to establish obviously makes criminal litigation cheaper for the government.”).

undermining the very goal that the Court was trying to achieve in expanding procedural due process protections.¹⁴⁴

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,¹⁴⁵ as well the death penalty, even as innocent convicts are exonerated from death row.¹⁴⁶ 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.¹⁴⁷ 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.¹⁴⁸ These tools have enabled prosecutors 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).¹⁴⁹ The advent of sentencing guidelines in the federal system and many state systems, which create a determinate sentencing scheme based on offense

144 Kadish, *The Crisis of Overcriminalization* at 168 (“The chief vice of these laws is that they constitute wholesale abandonment of the basic principle of legality.”).

145 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 (codified as amended at 21 U.S.C. § 841 (2006)). Until 2010, it was triggered by a mere five grams of crack, the equivalent of a few sugar packets.

146 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, A.B.C. News (Sept. 8, 2011) (“The State of Texas has a clear, thoughtful process in place.”).

147 See Ofra Bickel, *The Confessions*, PUBLIC BROADCASTING CORPORATION (2010) (investigating the story of four innocent men that pled guilty to murder due to police pressure and to avoid potential death sentences).

148 See generally Erik Luna & Paul Cassell, *Mandatory Minimalism*, 32 CARDOZO L. REV. 1, 1 (2010) (“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.”).

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

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.¹⁵⁰ 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.¹⁵¹ The gap between plea bargain-produced sentences and trial-produced sentences, known among defense lawyers as “the trial penalty,” can be sufficiently 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.¹⁵²

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.¹⁵³ In reality, the courts have largely done the opposite since the Warren era, deferring to the other branches’ decisions and rarely striking them

150 *Id.*

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

152 See WILLIAM STUNTZ, *THE COLLAPSE OF AMERICAN CRIMINAL JUSTICE* 257-263 (2011) (arguing that procedural mechanisms have incentivized guilty pleas and thus diminished the adversarial process in criminal cases).

153 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 – are actually the root cause of dysfunction in the criminal justice system, see Stuntz, *supra* note 152.

down as unconstitutional.¹⁵⁴ 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.

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.¹⁵⁵

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. The living

154 *See, e.g.,* *Skinner v. Railway Labor Executives’ Ass’n*, 489 U.S. 602 (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”); *United States v. Leon*, 468 U.S. 897 (1984) (Brennan, 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); *McCleskey v. Kemp*, 481 U.S. 279 (1987) (upholding the death penalty against challenges of racial discrimination).

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

constitutionalists say that the Constitution is an evolving document that should be interpreted according to society's values as they change over time. Both sides speak to important, yet conflicting, values. As Strauss, a proponent of living constitutionalism based on a common-law conception of constitutional evolution,¹⁵⁶ 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?”¹⁵⁷

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 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 good¹⁵⁸ 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.¹⁵⁹

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

156 See generally *id.* (describing and critiquing Strauss's work).

157 STRAUSS, *supra* note ____, at 2.

158 See Rosenfeld, *supra* note ____, at 1310 (arguing that for “heterogeneous 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”).

159 See *id.* (“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.”).

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 misleading¹⁶⁰—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.¹⁶¹ 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 theory is “best,” but rather how and why theories change and how institutions may best adapt to this inherent uncertainty.

Originalist theories have experienced a resurgence in the last few decades. These theories represent a cluster of related interpretive approaches, developed in several waves.¹⁶² 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.¹⁶³ More recent versions, however, have recognized the need to account for the

160 Strauss, *supra* note ___ 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. ___ (2011).

161 Strauss, *supra* note ___ 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).

162 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).

163 LAWRENCE B. SOLUM, [WHAT IS ORIGINALISM: THE EVOLUTION OF CONTEMPORARY ORIGINALIST THOUGHT](#) (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).

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.¹⁶⁴ This distinction recognizes the inherent indeterminacy in the text and the consequent possibility for multiple meanings.¹⁶⁵

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.”¹⁶⁶ 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

164 Lawrence B. Solum, [The Interpretation-Construction Distinction](#), 27 CONSTIT. 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 Colby, *The Sacrifice of the New Originalism* 99 *Georgetown L. J.* ____ (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); Smith, *supra* note ____, at 722-724 (2011) (suggesting that the New Originalism no longer provides sufficient constraint and restraint to serve as a real rival for Living Constitutionalism).

165 See Jack Balkin, *The Roots of the Living Constitution*, 92 B.U. L. REV. 1130, 1132 (2012) (“Most 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 159.

166 *Supra* note ____ at 2.

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 vs. Heller*.¹⁶⁷ 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.¹⁶⁸ 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.¹⁶⁹ 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*,¹⁷⁰ 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.¹⁷¹ Anti-subordination contends that the clause was passed to remedy centuries-long discrimination, which in many ways has continued unabated since slavery, so that racial classification may be permissible in order to effectuate this anti-subjugation purpose.¹⁷²

167 554 U.S. 570 (2008).

168 *Id.* at ____.

169 *Id.* at ____ (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.").

170 347 U.S. 483 (1954).

171 *See, e.g.*, 551 U.S. 701 (2007) (Roberts, C.J.) ("The way to stop discrimination on the basis of race is to stop discriminating on the basis of race.").

172 *See* Ruth Colker, *Anti-Subordination above All: Sex, Race, and Equal Protection*, 61 N.Y.U. L. REV. 1003 (1986); Harris, *supra* note 46. 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 (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

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.¹⁷³ 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.¹⁷⁴ 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.”¹⁷⁵

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

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.

173 For a recent vindication of Justice Breyer’s theory in Supreme Court jurisprudence, see *NLRB v. Noel Canning*, 573 U.S. ___, at *28 (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, *THE LIVING CONSTITUTION, A CONSIDERATION OF THE REALITIES AND LEGENDS OF OUR FUNDAMENTAL LAW* (1927).

174 See *Missouri v. Holland*, 252 U.S. 416, 433-34 (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.”).

175 *Trop v. Dulles*, 356 U.S. 86 (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”).

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.¹⁷⁶

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

¹⁷⁶ 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 generally* Susan Klein, *Identifying and (Re)Formulating Prophylactic Rules, Safe Harbors, and Incidental Rights in Constitutional Criminal Procedure*, 99 MICH. L. REV. 1030 (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 (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).

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.”¹⁷⁷ 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.¹⁷⁸

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. . . . [T]his is how the American system of living constitutionalism works in practice.¹⁷⁹

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.”¹⁸⁰

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.”¹⁸¹ 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,”¹⁸² or living constitutionalism.

A parallel evolution has occurred among living constitutionalists. Through an avowed living constitutionalist, Strauss, for example, 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.”¹⁸³ 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.¹⁸⁴ 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

177 Jack Balkin, *Framework Originalism and the Living Constitution*, at 1 (October 23, 2008).

Northwestern University Law Review, 2009. Available at SSRN: <http://ssrn.com/abstract=1290869>.

178 *Id.* at 11-12.

179 *Id.* at 8.

180 *Id.* at 15-16.

181 Smith, *supra* note ____, at 707.

182 *Id.*

183 STRAUSS, *supra* note ____, at 35.

184 *See* Ackerman, *supra* note ____.

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 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. 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.¹⁸⁵ 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.¹⁸⁶ Not only has the length of statutes exponentially increased,¹⁸⁷ Congress also delegates vast authority to administrative agencies in the executive branch to craft reams of rules governing statutory implementation.¹⁸⁸ 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

185 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.” *Supra* note ___, 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 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.

186 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, 17 (2005) (Scalia, J., concurring); Antonin Scalia, *Originalism: The Lesser Evil*, 57 U. CIN. L. REV. 849, 861–64 (1989).

187 *See infra* note ___.

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

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,¹⁸⁹ has belied the reality of the vast administrative state.

Instead of nimbly adapting to fluidly changing circumstances, modern legislatures and administrative agencies have found little alternative but to adopt 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,¹⁹⁰ with the Dodd-Frank Act at 849 pages, not including the 14,000 pages of regulations drafted to implement the statute’s requirements.¹⁹¹ In particular, Section 619 of the Dodd-Frank Act adds a new section 13 to the Bank Holding Company Act of 1956. This section was meant to implement the Volcker Rule, which would limit proprietary trading and conflicts of interest between financial institutions and their clients. 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.”¹⁹² Thus, the very regulators empowered to execute Dodd–Frank themselves report that the Act is not merely hard to understand, but utterly opaque.¹⁹³

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

190 See Banking Act of 1933, 48 Stat. 162.

191 Davis Polk, *Three Years of Dodd-Frank* (2013), available at <http://www.davispolkportal.com/infographic/july2013infographic.html> (last visited Aug. 22, 2014).

192 Office of the Comptroller of the Currency et al. at 68849 (2011).

193 Moreover, as Lawrence Baxter notes, these regulations are not only opaque, they are often devastatingly ineffectively. 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. AFRICAN L. J. 253, 257 (2011).

Not surprisingly, the scope of regulatory authority has also grown over time, as the economy and social life have become increasingly interconnected, generating increasing conflicts among competing rights. Legal doctrines utilized by the courts have not sufficiently evolved to cope with this increasing complexity to adequately adjudicate these competing rights. 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.¹⁹⁴ 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.¹⁹⁵ 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.¹⁹⁶

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

¹⁹⁴ See *supra* note ____.

¹⁹⁵ Indeed, in his book *Is Administrative Law Unlawful?* (2014), Phillip 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. 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).

¹⁹⁶ See Hamburger, *supra* note 194; 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* 37 (1929) (Benn ed. 1945) (“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.”).

inevitably be interpreted in light of circumstances unforeseen at the time of their decision.¹⁹⁷ 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.¹⁹⁸ Courts not only navigate between creating 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. This complex interaction may be analogized to nonlinear equations, as “all processes that contain some interactions (e.g. interacting weights in a double pendulum or two planets revolving around a sun [as entailed by Poincare’s analysis of the three-body problem]), are soundly described by nonlinear mathematical systems.”¹⁹⁹ Nonlinear equations are known to produce what is known as “non-analyticity,” where the derivatives of these equations diverge so that there is no solution to the equation. This situation may create breaks in symmetry, so that there is no predictable solution, or create multiple equilibria, so that there are several, even many, “correct” answers. In short, “we cannot predict or follow the continuous trajectory even in principle.”²⁰⁰ Like nonlinear equations, 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.

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

¹⁹⁷ For a seminal work on the subject, see CASS SUNSTEIN, *ONE CASE AT A TIME: JUDICIAL MINIMALISM ON THE SUPREME COURT* (2001).

¹⁹⁸ 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.

¹⁹⁹ Koppl et al, *supra* note ___, at 6.

²⁰⁰ *Id.* at 5.

with no central control or leader.”²⁰¹ 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. 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 U.S. Supreme Court has long been comfortable defining “economy activity” in terms of the potential aggregate effects of individual activity.²⁰² 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

201 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* P. M. Binder, *Frustration in Complexity*, 320 *SCIENCE* 322, 322 (2008) (defining emergence as “complicated global patterns emerging from local or individual interaction rules between parts of a system”); 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”).

202 *See supra* note ____.

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 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.²⁰³

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.²⁰⁴ “Reasonable suspicion” is an opaque standard, but courts have held that it requires a “totality of the circumstances” analysis that takes into account all of the observable circumstances at the time of the search.²⁰⁵ 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 factors²⁰⁶—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

203 See *supra* note ____.

204 *Terry v. Ohio*, 392 US 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”).

205 *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.”).

206 See *United States v. Arvizu*, 534 US 266, 275-77 (2002).

individual citizens. In *Katz v. United States*,²⁰⁷ the Court held that it society's reasonable expectation of privacy that determines when a search occurs.²⁰⁸ 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.²⁰⁹ 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 data held by a telephone company.²¹⁰ 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.²¹¹

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*,²¹² 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

207 389 U.S. 347 (1967).

208 *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").

209 *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 (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 (2009).

210 *See Smith v. Maryland*, 442 U.S. 735 (1979). This logic has been expanded to permit government collection of all internet metadata. *See ACLU v. Clapper*, No. 13-3994 (S.D. New York December 28, 2013). *But see Klayman et al. v. Obama et al.*, no. 13-0851 (D.D.C. Dec. 13, 2013) (holding collection of metadata not justified by third-party doctrine).

211 *United States v. Knotts*, 460 U.S. 276 (1983); *United States v. Karo*, 468 U.S. 705, 104 S.Ct. 3296, 82 L.Ed.2d 530 (1984).

212 132 S. Ct. 945, 565 U.S. ____ (2012).

order to attach the GPS to the car,²¹³ 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.²¹⁴ 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.²¹⁵ However, such evolution may be inefficient, even stifled, so long as it is centralized in the hands of a few individuals.

The inconsistency and unwieldiness within all three branches can be contributed 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.”²¹⁶ Adaptive agents must constantly adapt, evolve, and proliferate in order to survive in an ever-changing environment with ever-evolving opposing

213 *Id.* at 952.

214 *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).

215 ADAM SMITH, *LECTURES ON JURISPRUDENCE* (1766); ADAM SMITH, *WEALTH OF NATIONS* (1776).

216 KAUFFMAN, *supra* note 147, at 33.

agents.²¹⁷ Just to maintain relative adaptiveness in a constantly changing environment, competitors must continually adapt to each other's strategies and to the environment.²¹⁸ 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.²¹⁹ 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 back to Sam Peltzman,²²⁰ who discovered that people drive more recklessly with seat belts on. This "compensating behavior" mitigates the benefits of having seat belts in the first place. Peltzman 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

217 See J.B. Ruhl and James Salzman, *Mozart and the Red Queen: The Problem of Regulatory Accretion in the Administrative State*, 91 GEO. L.J. 757, 829–49 (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 MICHAEL ROSENZWEIG, *RAT RACE* (1973); LEIGH VAN VALEN, *RED QUEEN* (1973).

218 See Richard Dawkins & J.R. Krebs, Dawkins, *Arms races between and within species*, in *Proceedings of the Royal Society of London* 489–511 (1979); Leigh Van Valen, *A New Evolutionary Law*, 1 *Evol. Theory* 1 (1973).

219 Bruce Yandle, *Baptists and Bootleggers: The Education of a Regulatory Economist*, J. ON REG. 12, May–June 1983.

220 Sam Peltzman, *The Effects of Automobile Safety Regulations*, J. OF POL. ECON. 83 (1975).

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,²²¹ by, for example, requiring defendants to show discriminatory intent in their particular case despite compelling evidence of discriminatory impact,²²² and to show that they have been treated differently than other, similarly situated defendants.²²³ 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 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

221 See Skalansky, *supra* note 74, at 1308 (“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”).

222 Although not related to drug laws, the Court's decision in *McCleskey v. Kemp*, 481 U.S. 279 (1987) upholding the death penalty against challenges of racial discrimination, demonstrates this sort of logic. See *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).

223 See *Armstrong*, 517 U.S. at 469.

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.

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 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.²²⁴

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

224 Fallon, *supra* note 1, at 7-8.

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.²²⁵ 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. Thus, 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.²²⁶ Thus the law is either impotent, or is not really “law” at 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,

²²⁵ See *supra* notes ____.

²²⁶ See Lawrence Baxter, ‘*The Rule of Too Much Law? The New Safety/Soundness Rulemaking Responsibilities of the Federal Banking Agencies*,’ 47 CONSUMER FINANCIAL QUARTERLY REPORT, 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).

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.

New ways of thinking about legal evolution

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 alternative would be to create metrics to measure these and other attributes in meaningful ways. In this sense, we may be able to save the Rawlsian bargain. Rawls, critically, only uses his theory to “evaluate” the justice of the given institutional system, not to discuss the becoming and unprestatable evolution of institutions. He could be “rescued” in our setting by using

something akin to the veil of ignorance to, at each moment as institutions emerge, assess the “fairness” of these undesigned institutions.

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.”²²⁷ In the perfectly algorithmic context of multi-robot systems pursuing a fixed, measurable goal, we nevertheless see a movement away from tradition 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.²²⁸ 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

²²⁷ Dahl et al, *A machine learning method for improving task allocation in distributed multi-robot transportation*, in *COMPLEX ENGINEERED SYSTEMS: SCIENCE MEETS TECHNOLOGY* (Braha et al eds. 2006).

²²⁸ See, e.g., John Ioannidis, *Why Most Published Research Findings Are False*, *PLoS MEDICINE* 2 (8): e124

optimize treatment protocol without use of a formal RCT study.²²⁹ 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-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.²³⁰

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.²³¹ 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.”²³² Second, RCTs produce generate protocols based on an idealized “average” person that do not take into account the unique characteristics of individuals.²³³ 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.²³⁴

229 Eppstein, M.J. et al. PLoS One (2012). doi: 10.1371/journal

230 *Id.*

231 Kauffman et al, Transforming Medicine: A Manifesto, Sci. Am. Worldview (Jun. 2014), available at <http://www.saworldview.com/special-report-cancer/transforming-medicine-a-manifesto/> (last visited Aug. 22, 2014).

232 *Id.*

233 *Id.*

234 *Id.*

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 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 markets by entrepreneurial drug traffickers. In the constitution 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.²³⁵ However, for the same reason that economic models cannot ever capture the true complexity of the economy or effectively predict entrepreneurial innovations,²³⁶ neither can such models entirely map the

²³⁵ See, e.g., FREISEN ET AL, EXPLORING EMERGENCE WITHIN SOCIAL SYSTEMS WITH AGENT BASED MODELS (2014); Alexander Boer and Tom von Engers, *An agent-based legal knowledge acquisition methodology for agile public administration*, in PROCEEDINGS OF THE 13TH INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND LAW, 171-180 (2011).

²³⁶ Koppl et al, *supra* note ___, at 1 (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”).

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 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. 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.”²³⁷

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

237 Scott Gordon, *The New Contractarians*, 84 J. OF POL. ECON. 573 (1976).

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.”²³⁸ In other words, novelty intermediaries in the law will continue to flourish. But the suggestion remains that we should embrace broader bottom-up strategies to evolve 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

238 Koppl et al, *supra* note ____, at 20.

less adept at updating their frames than systems distributing decision making across a relatively large number of people.”²³⁹

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 influence its supply.”²⁴⁰ 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

²³⁹ *Id.* at 23.

²⁴⁰ *Id.* at 26 (quoting W. Baumol, *Entrepreneurship: Productive, Unproductive, and Destructive*, 98 J. OF POL. ECON. 893 (1990)).

Reflecting on the American constitutional experiment, Thomas Jefferson 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 which fitted him when a boy as civilized society to remain ever under the regimen of their barbarous ancestors.²⁴¹

Our argument is in the spirit of Jefferson, 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 growing the conditions that enable it to flourish.

241 Thomas Jefferson, Letter to Samuel Kercheval, July 12, 1816, in *The Writings of Thomas Jefferson*, vol. 10 p. 4243 (ed. Paul L. Ford).