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Constitutional Empiricism: Quasi-Neutral Principles and Constitutional Truths

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CONSTITUTIONAL EMPIRICISM: QUASI-NEUTRAL PRINCIPLES AND CONSTITUTIONAL TRUTHS

TIMOTHY ZICK*

The absence of neutrality and objectivity in constitutional decision-making has vexed scholars and courts. In this Article, the author describes and analyzes “constitutional empiricism,” a trend instituted by the Rehnquist Court, which is characterized by judicial reliance in constitutional review on empirical and scientific conventions and processes. Courts have generally relied upon traditional sources, such as text and history, to interpret constitutional powers and rights. In its search for neutrality and objectivity, however, the Court has recently turned not only to social science and other data, which are fast becoming common sources of interpretation, but also to the precepts and methods of scientific and empirical inquiry. Constitutional empiricism is a method of constitutional interpretation which seeks to imitate scientific inquiry. Empiricism boasts, for example, the ability to distinguish, by reference to empirical observation, “real” from sham legislative predicates. It is used to empirically test legislative hypotheses, predictions, theories, and causal claims. Beyond this, empiricism is also manifested in the Court’s efforts to “quantify” normative constitutional provisions as disparate as the Due Process Clause, the Establishment Clause, and the Cruel and Unusual Punishments Clause, among others. Drawing upon ongoing debates in the philosophy of science discipline, the Author argues that constitutional empiricism does not provide long-sought neutral methods and principles for constitutional interpretation. Empiricism is based upon a host of subjective choices that affect not only which questions will be answered empirically, but also the collection, categorization, and ultimate interpretation of data. Thus, the precepts of empiricism do not, as would appear, function as a set of “neutral principles.” In fact, the Author argues, far from propelling constitutional interpretation into the twenty-first century, empiricism has been utilized, thus far,

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to draw attention away from a return to the sort of formalism and conceptualism that characterized early eras of constitutional interpretation. More generally, the Author contends that empirical methods are ill-suited to the discovery of constitutional meaning. Because it filters evidence, fails to provide standards for separating “good” empirical results from “bad” results, and demands that hypotheses be legally “correct,” constitutional empiricism does not advance constitutional knowledge in the same manner that empirical methods advance scientific knowledge. The Author argues that perhaps the most disturbing issue is that finding constitutional truths empirically threatens to further sterilize and compress constitutional discourse.

INTRODUCTION.....	117
I. JURISPRUDENTIAL FOREBEARS OF CONSTITUTIONAL EMPIRICISM	123
A. <i>Early Formalism</i>	124
B. <i>Realism and the Post-formalist “Science” of Law</i>	127
C. <i>Constitutional Balancing: The First Empirical Turn in Constitutional Law</i>	133
D. <i>The Continuing Search for Neutrality and Objectivity</i>	138
II. THE FORMS AND FUNCTIONS OF CONSTITUTIONAL EMPIRICISM	140
A. <i>Foundational Functions</i>	140
B. <i>Quantifying Governmental Interests and Purposes</i>	145
1. Measuring State Interests in Health and Safety	145
2. Empirical Proof of “Real” Harms.....	147
3. Quantifying “Substantial Effects,” “Congruence,” and “Proportionality”	153
4. Empirical Demonstration of Invidious and Remedial Purposes	158
C. <i>Implausible Governmental Predictions</i>	163
D. <i>Implausible Governmental Theories and Causal Claims</i> ..	166
E. <i>Empirical Proxies</i>	169
1. Measuring Evolving Societal Standards	169
2. The Establishment Equation and Religious Symbolism	173
3. Punishment and Due Process	177
III. QUASI-NEUTRALITY AND THE NEW FORMALISM.....	179
A. <i>Quasi-neutral Principles and the Empirical Black Box</i>	180
1. An Epistemological View of Empiricism	181
2. Quasi-neutrality: Inside the Empirical Black Box	185

<i>B. Shifting Paradigms: The New Constitutional Formalism</i>	195
1. Judicial Supremacy and Skepticism	195
2. A Refashioned Constitutional Formalism	198
IV. CONSTITUTIONAL TRUTHS.....	202
<i>A. Empiricism as Power Delimiter and Rights Definer</i>	202
1. Empirical Filters.....	203
2. “Good” Versus “Bad” Empirical Results	206
3. Legal Certainties and Empirical Probabilities.....	212
<i>B. Empirical Constitutional Discourse: Expounding a Constitution</i>	215
CONCLUSION	220

INTRODUCTION

Constitutional scholars tend to be more enamored with unifying theories than the study of the building blocks of constitutional foundations, those things which are usually lumped together as facts and largely ignored, or at least not examined in any systematic fashion.¹ The preference for high theory and overarching principles is

1. See, e.g., Richard A. Posner, *Against Constitutional Theory*, 73 N.Y.U. L. REV. 1, 4, 21 (1998) (noting that “[c]onstitutional theory today circulates in a medium that is largely opaque to the judge and the practicing lawyer” and that “the lack of an empirical footing” is the “achilles heel of constitutional law”). “Facts” have not been entirely ignored in constitutional scholarship. But, the treatment has not been in any sense systematic. Some scholars have focused solely on the Supreme Court’s use of social scientific data in certain cases. See David L. Faigman, “*Normative Constitutional Fact-Finding*”: *Exploring The Empirical Component of Constitutional Interpretation*, 139 U. PA. L. REV. 541, 550 (1991) (criticizing the Supreme Court for misinterpreting scientific data, and changing legal rules to avoid data); Deborah Jones Merritt, *Constitutional Fact and Theory: A Response to Chief Judge Posner*, 97 MICH. L. REV. 1287, 1291–93 (1999) (asserting that social science “can’t resolve constitutional issues”). Several commentators have focused on the facts relating to federal civil rights and Commerce Clause legislation. See, e.g., Samuel L. Pilchen, *Politics v. The Cloister: Deciding When the Supreme Court Should Defer to Congressional Factfinding Under the Post-Civil War Amendments*, 59 NOTRE DAME L. REV. 337, 343 (1984) (criticizing the expansion of Congress’s enforcement powers through its fact finding abilities); Wendy M. Rogovin, *The Politics of Facts: The Illusion of Certainty*, 46 HASTINGS L.J. 1723, 1732 (1995) (examining the role of “political” and “scientific” facts in judicial review of federal legislation). Still others have recently examined the Supreme Court’s new “legislative record” scrutiny in cases involving civil rights legislation. See, e.g., A. Christopher Bryant & Timothy J. Simeone, *Remanding to Congress: The Supreme Court’s New “On The Record” Constitutional Review of Federal Statutes*, 86 CORNELL L. REV. 328, 392–93 (2001) (critiquing the Supreme Court’s treatment of the “legislative record” for legislation enacted under Section 5 of the Fourteenth Amendment); William W. Buzbee & Robert A. Shapiro, *Legislative Record Review*, 54 STAN. L. REV. 87, 119 (2001) (same); Ruth Colker & James J. Brudney, *Dissing Congress*, 100 MICH. L. REV. 80, 80–83 (2001) (same); Philip P.

unfortunate and somewhat misguided. Constitutional law, like many other areas of law, is becoming an empirical enterprise. Most federal judges, including most members of the Supreme Court, do not adhere to any overarching normative theory of constitutional interpretation. A pragmatic bench increasingly looks instead to data and scientific conventions for objective measures of constitutionality.

Constitutional law is now in the throes of a widespread empirical turn, a quantitative mood swing that is consistent with a more general societal turn toward all things scientific.² There are, wherever one looks, judicial attempts to quantify, for example, legislative purposes and predicates, constitutional powers, and even explicitly normative constitutional concepts. Constitutional issues are just as likely to be examined with reference to empirical methods—collections of data, putative correlations and causative principles, and arguments over the nuances of sampling methodology and results—as they are with reference to text, precedent, and history, the traditional sources of constitutional construction. Questions that in the past were answered conceptually, or even with reference to purported judicial common sense, are now routinely addressed empirically. The now-ubiquitous data run the gamut from rigorous social science and medical research, to lighter survey fare and data compilations, to collections of anecdotal accounts.³

Constitutional empiricism is more than a judicial reliance on data—it is the *process* by which constitutional issues are routinely engaged as empirical propositions. Empiricism is both a method of constitutional interpretation and a judicial perspective on the proper mission of the courts in constitutional cases. It is, for the Rehnquist Court, a logical outgrowth of, and replacement for, the economics

Frickey & Steven S. Smith, *Judicial Review, The Congressional Process, and the Federalism Cases: An Interdisciplinary Critique*, 111 YALE L.J. 1707, 1719 (2002) (same).

2. See MICHEL SERRES & BRUNO LATOUR, CONVERSATIONS ON SCIENCE, CULTURE AND TIME 87 (1995) (noting the ascendancy of the scientific method and the growing perception that science “has all the power, all the knowledge, all the rationality”).

3. I am using both “scientific” and “empirical” in a broad sense. “Scientific knowledge” is “a sensory-based, empirical process of testing statements about the world through observation and experimentation.” Margaret G. Farrell, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, *Epistemology and Legal Process*, 15 CARDOZO L. REV. 2183, 2192 (1994). An empirical approach “begins with the assumption that direct observation and experience provide the only firm basis for understanding nature.” JOHN M. NEALE & ROBERT M. LIEBERT, *SCIENCE AND BEHAVIOR: AN INTRODUCTION TO METHODS OF RESEARCH* 2 (2d ed. 1980). A rational approach, by contrast, “rests on the belief that people can understand through reason and intuition alone.” *Id.* Empirical research “refers to any activity that systematically attempts to gather evidence through observations and procedures that can be repeated and verified by others.” *Id.* at 7.

and utilitarianism utilized by the Burger Court.⁴ Empiricism is the new sibling of conventional modes of constitutional interpretation like textualism, structuralism, and historicism. In the past, empiricism has operated in the background, under the rubric of judicial “fact-finding” in constitutional law.⁵ Increasingly, however, constitutional empiricism is how constitutional law is being made.

A sampling of recent issues that have received empirical treatment demonstrates the breadth and significance of this empirical turn. The following issues of constitutional interpretation, among many others, have been treated as empirical propositions: whether Congress had sufficient data to support its prediction that a market intervention with respect to cable programming was necessary to avoid the evil of broadcast station failures;⁶ whether Congress could demonstrate empirically its theory that imposing civil penalties for surreptitiously intercepting wireless communications would dry up the downstream market for initial interceptions;⁷ whether legislative outputs demonstrate that execution of the mentally retarded is “cruel and unusual punishment” under the Eighth Amendment;⁸ whether statistics regarding the public funding of religious education through

4. See Laurence H. Tribe, *Constitutional Calculus: Equal Justice or Economic Efficiency?*, 98 HARV. L. REV. 592, 592 (1985) [hereinafter Tribe, *Constitutional Calculus*] (noting the “recent Supreme Court trend toward discharging the federal judicial mission in the manner of an economic manager armed with hard-edged tools of cost-benefit analysis”); *Id.* at 599–614 (discussing cases regarding, among other constitutional provisions, the Due Process Clause, the Establishment Clause, and guarantees relating to criminal procedure). For a critique of the Burger Court’s utilitarianism, see generally Laurence H. Tribe, *Seven Deadly Sins of Straining the Constitution Through A Pseudo-Scientific Sieve*, 36 HASTINGS L.J. 155 (1984) [hereinafter Tribe, *Seven Deadly Sins*].

5. Scholars have long debated whether there is a meaningful distinction between constitutional “fact” and constitutional “law.” See generally Henry P. Monaghan, *Constitutional Fact Review*, 85 COLUM. L. REV. 229 (1985) (explaining the differences and confusion between fact and law). The empirical turn addressed in this Article supports the view that “law” and “fact” cannot be differentiated in any meaningful sense in constitutional adjudication and construction.

6. See generally *Turner Broad. Sys., Inc. v. FCC*, 520 U.S. 180 (1997); *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622 (1994). The *Turner* cases are discussed *infra* notes 270–86 and accompanying text.

7. See generally *Bartnicki v. Vopper*, 532 U.S. 514 (2001) (invalidating portions of Title III, the federal wiretapping statute). *Bartnicki* is discussed *infra* notes 287–94 and accompanying text.

8. See generally *Atkins v. Virginia*, 536 U.S. 304 (2002) (invalidating legislation which provided for the execution of the mentally retarded, based primarily on the Court’s finding of a state legislative “consensus” that such punishment was deemed cruel and unusual). Whether capital punishment for juvenile defendants violates the Eighth Amendment’s ban on “cruel and unusual” punishments is subject to a similar empirical analysis. That issue remains open as of this writing. *Atkins* is discussed *infra* notes 315–26 and accompanying text.

vouchers demonstrate a violation of the Establishment Clause;⁹ and whether there is a numerical point at which the disparity between compensatory and punitive damages violates the guarantee of due process.¹⁰

The broad empirical turn presently occurring in constitutional law is due, at least in part, to the ever-expanding pool of data available to courts. The courts are literally awash in data, and seem constantly to be clamoring for more. More importantly, as evidence of all sorts has made its way into the judicial process, courts have, at the Supreme Court's instruction, taken on a more aggressive gatekeeping role with respect to scientific and other technical data.¹¹ Indeed, the empirical turn in constitutional law coincides with the Supreme Court's decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*,¹² in which federal judges were instructed to make their own assessments of scientific and technical data.

As empirical gatekeepers, courts examine and interpret the now readily available mass of data at their disposal. Data are, in a sense, both inescapable and highly attractive, especially to judges in search of some objective grounding as they ponder highly divisive political, moral, and social issues. Empirical methods and scientific conventions are an attractive alternative to judicial "puke tests"¹³ and other "soft," explicitly normative interpretive methods. One of the most vexing problems for constitutional interpreters and adjudicators is the lack of "hard," objective, neutral principles and techniques for giving meaning to constitutional concepts. Empirical precepts and conventions—measurement, formulas, equations, causality, and simple ratios—seem to promise the neutrality and legitimacy that constitutional interpretation requires. In sum, constitutional

9. See generally *Zelman v. Simmons-Harris*, 536 U.S. 639 (2002) (upholding voucher program despite data indicating that ninety-six percent of public funds were used for parochial school tuition). *Zelman* is discussed *infra* notes 332–40 and accompanying text.

10. See generally *State Farm Mut. Auto. Ins. Co. v. Campbell*, 123 S. Ct. 1513 (2003) (invalidating punitive damages award of \$145 million where compensatory award was \$1 million). *State Farm* is discussed *infra* notes 351–58 and accompanying text.

11. This Article examines Supreme Court cases primarily, but also points out that empiricism has filtered down to the lower courts as well.

12. 509 U.S. 579 (1993); see also *Kuhmo Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 148–49 (1999) (expanding *Daubert* approach to all technical evidence); *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 142–43 (1997) (addressing standard of review for trial judge's gatekeeping function when admitting scientific testimony).

13. See Richard A. Posner, *Pragmatic Adjudication*, 18 CARDOZO L. REV. 1, 2 (1996) (explaining the "puke test," which calls for invalidating a statute on constitutional grounds if no reasonable person could defend it). The test originated in Justice Holmes's dissent in *Lochner v. New York*, 198 U.S. 45, 74–76 (1905) (Holmes, J., dissenting).

empiricism is the result of the confluence of several factors: the difficulty in locating elusive neutral constitutional principles, a growing dissatisfaction with constitutional doctrine and conventional methods of interpretation, and the rise of a judicial pragmatism that has settled upon empiricism as a next-best alternative.¹⁴

Constitutional jurisprudence has experienced a number of historical and jurisprudential shifts, from early natural law groundings,¹⁵ to the now-disfavored conceptualism of *Lochner v. New York*,¹⁶ to the realism which characterizes the wildly popular (with judges, anyway) construct of constitutional balancing. After the dark formalist period associated with *Lochner*, the Constitution was ostensibly opened to the influence of external sources and observations. The Court has been at the task of defining and managing these various externals ever since. It has been harshly criticized in some well-known instances, including *Brown v. Board of Education*,¹⁷ and *Roe v. Wade*,¹⁸ for its reliance on social and medical science.¹⁹ More generally, constitutional balancing, the Court's first widespread empirical turn in constitutional interpretation, has been consistently criticized for its apparent indeterminacy.²⁰

Constitutional empiricism is a budding interpretive process. Broad questions concerning the wisdom of this second empirical turn in constitutional interpretation should be raised now, at its inception. It would appear that courts have made the turn, in part, in order to mechanize further the balancing construct, with the goal of producing

14. This is by no means to suggest that courts always make the empirical effort. See Posner, *supra* note 1, at 13–21 (criticizing recent Supreme Court equal protection precedents relating to gender and sexual preference discrimination for basing decision on normative values and failing to include consideration of scientific and social-scientific data). As Judge Posner notes, empirical evidence is not always available, a circumstance he lays in part at the feet of current constitutional scholars, who tend to focus on theory to the exclusion of empirical knowledge. Judge Posner asserts that where data is scarce or non-existent, courts will continue to rely on their normative judgments and judicial temperaments. See *id.* at 21–22.

15. See, e.g., *Calder v. Bull*, 3 U.S. (3 Dall.) 386, 388–89 (1798) (suggesting that there were implied natural law-based limits on state legislative power).

16. 198 U.S. 45 (1905).

17. 347 U.S. 483 (1954).

18. 410 U.S. 113 (1973).

19. See, e.g., Edmond Cahn, *Jurisprudence*, 30 N.Y.U. L. REV. 150, 167–68 (1955) (criticizing *Brown*'s reliance on social science data that has an "uncertain expectancy of life").

20. See, e.g., T. Alexander Aleinikoff, *Constitutional Law in the Age of Balancing*, 96 YALE L.J. 943, 972–94 (1987) (criticizing how balancing has transformed constitutional law); Tribe, *Constitutional Calculus*, *supra* note 4, at 607–08 (criticizing the Supreme Court's cost-benefit calculus generally, and specifically as applied to the Fourth Amendment exclusionary rule and its exceptions).

more objective and determinate constitutional decisions. They have also turned to things like simple formulas and ratios in order to attain more objective interpretations of open-ended constitutional provisions. But is a “science” of constitutional law possible? Will it lead to more accurate and objective constitutional decision-making and interpretation? Or is constitutional empiricism merely a new formalism in disguise, one that, as balancing did, falsely promises objective adjudication and constitutional truths, while leading us back toward *Lochner*?

This Article describes and critiques constitutional empiricism as a method of constitutional adjudication and construction. Part I clarifies the concept of constitutional empiricism by placing it in an admittedly abbreviated and necessarily simplified jurisprudential context. The recent turn toward empiricism has a historical and jurisprudential pedigree that stretches back to the demise of *Lochnerism*, which was followed some time later by the birth of constitutional balancing. Constitutional empiricism is the second general empirical turn in constitutional law, post balancing.

Part II examines constitutional empiricism’s various forms and functions. Empiricism encompasses a range of these methods. Empirical methods, such as statistics, are now directly relevant to a number of constitutional claims. Medical and other empirical evidence is utilized as background with regard to highly contested constitutional rights, such as the “right to die.”²¹ Social statistics and other evidence are also sometimes relied upon in choosing among competing constitutional rules.²² These are empiricism’s foundational functions. Because these empirical functions operate in the background and are not dispositive of constitutional issues, they are uncontroversial. The recent judicial penchant for testing congressional outputs as if they were regulatory “hypotheses” is more controversial. Where the Supreme Court has viewed legislative hypotheses, predictions, theories, and claimed causal relationships as novel or implausible, it has applied a heightened empiricism, one which demands evidence of a real harm or evil and seeks to quantify the legislative predicate.²³ The Court has also sought to operationalize, through simple equations, quantification, and ratios, constitutional guarantees such as the prohibition on “cruel and unusual punishments” under the Eighth Amendment, religious

21. See *infra* note 148.

22. See *infra* notes 156–62 and accompanying text.

23. See *infra* Part II.B–C.

coercion under the Establishment Clause, and the right to due process.²⁴

Part III examines and critiques constitutional empiricism as a method of judicial review in constitutional cases. Empirical and quasi-scientific methods—data compilation, hypothesis testing, falsification of causal claims, equations, and ratios—are merely the latest iteration of purportedly neutral principles of constitutional decision-making. From the outside and from a distance, the empirical approach looks objective and determinate. But, constitutional empiricism is rooted in an antiquated, positivist view of science and scientific methods, one that does not account for external influences on both the data being examined and the methods by which the courts are performing empirical functions. Drawing on the ongoing debates concerning the objectivity of empirical and scientific methods, this Article posits that empiricism is institutionally and doctrinally situated and constrained, and that it masks a new conceptualism in constitutional adjudication and interpretation. Empiricism is the new face of formalism in constitutional law, an approach to constitutional questions which conceals strong conceptual biases within quasi-neutral and quasi-scientific processes. Rather than move courts beyond rigid concepts, empiricism actually reinforces existing categorical constructs.

Finally, Part IV addresses the inherent incompatibility of empiricism and the search for constitutional “truths.” Generally, because science and law are driven by fundamentally disparate processes and goals, empiricism can bring us only as close to constitutional truths as the narrowness of law and legal processes will permit. Part IV contains some suggestions for improving empiricism; but even if empiricism could get beyond the new formalism it currently manifests, there are significant obstacles to discovering constitutional truths empirically. There are still further reasons to be skeptical of an empirical approach in constitutional law. Empiricism narrows constitutional discourse, as data increasingly edge out broader considerations of value and justice in the search for empirical constitutional truths.

I. JURISPRUDENTIAL FOREBEARS OF CONSTITUTIONAL EMPIRICISM

An exhaustive survey of American jurisprudential history is beyond the scope of this Article. Insofar as this Article contends that

24. See cases cited *supra* notes 8–10.

the courts have taken an empirical turn, however, it is instructive to view the turn through the lens of past efforts to make law, particularly constitutional law, a more objective, more scientific, enterprise. The discernible patterns in the conventional jurisprudential accounts, from Langdellian legal science²⁵ to the apparent promise of legal realism's "scientific" approach, then back again to new shades of formalism, shed valuable light on the latest empirical turn in constitutional jurisprudence.²⁶

A. *Early Formalism*

Accounts of the path to modern legal thought sometimes begin with the pre-modern period, which spanned the country's framing through the Civil War.²⁷ During this period, legal commentators relied heavily on natural law principles.²⁸ These principles focused on universal truths, divinely inspired, which courts were to apply in construing the Constitution or any other organic law.²⁹ The difficulty in uncovering these truths in an objective manner is apparent. From the beginning, more determinate foundations were sought for constitutional and other principles.

Conventional accounts of modern legal thought invariably begin with some discussion of legal formalism, which followed on the heels of the Civil War. The formalists, like some of their pre-modern forebears, believed that law could be objectively grounded. Early formalists, led by Dean Langdell of Harvard, counted precedents in a manner then believed to be "scientific."³⁰ Langdellian formalists conceived of law as a precise set of axiomatic principles—a logically

25. See GARY MINDA, *POSTMODERN LEGAL MOVEMENTS: LAW AND JURISPRUDENCE AT CENTURY'S END* 13–16 (1995) (describing Langdell's effort to create a legal science).

26. See generally NEIL DUXBURY, *PATTERNS OF AMERICAN JURISPRUDENCE* (1995) (providing a comprehensive account of jurisprudential patterns).

27. See STEPHEN M. FELDMAN, *AMERICAN LEGAL THOUGHT FROM PREMODERNISM TO POSTMODERNISM* 49–82 (2000) (discussing "first stage" and "second stage" premodern legal thought).

28. See *id.* at 49–52 (discussing the influence of natural law principles in early legal thought); see also Suzanna Sherry, *The Founders' Unwritten Constitution*, 54 U. CHI. L. REV. 1127, 1132 (1987) (noting that during the framing period, "[t]he idea that certain fundamental rights could not be ceded away also colored the American view of fundamental law").

29. See generally Philip A. Hamburger, *Natural Rights, Natural Law, and American Constitutions*, 102 YALE L.J. 907 (1993) (describing the influence of natural law during the framers' generation).

30. See FELDMAN, *supra* note 27, at 94 (noting that "two central features of Langdellian legal science were a positivist focus on the decided cases and the use of inductive reason to discover legal principles").

coherent and utterly closed system of rules derived predominantly from appellate opinions.³¹ As Langdell proclaimed in the preface to his Contracts casebook: "It is indispensable to establish at least two things, first, that law is a science; secondly that all the available materials of that science are contained in the printed books."³²

Through the abstract reason and inductive logic of opinions, Langdellian formalists attempted to derive universal legal truths and right answers from a system of rules.³³ Langdellian conceptualism conceived of law as a system of rules scrubbed clean of its context, a scientific compilation of purportedly immutable principles.³⁴ Langdellian science thus had no use for concepts like values or justice.³⁵

For some, this formalism brought discipline to law and legal thinking by demanding that concepts and rules be properly categorized and classified to demonstrate their logical interconnection.³⁶ Because they viewed law as fixed in nature, however, early formalists eschewed sociological, empirical, and other outside concerns and observations.³⁷ Legislative purpose, in particular, was not a subject for empirical demonstration, but was to be "determined from the natural and legal effect of the language employed."³⁸ For these conceptualists, pure logic controlled decisions, no matter what social scientific or other data might indicate.³⁹ Decided cases were the only data that really counted.

Langdellian formalists paid scant attention to the academic study of constitutional law, which they viewed as too political and vague to

31. FELDMAN, *supra* note 27, at 94 (asserting that with Langdellian science, "analytical or logical soundness was the sole criterion for proper legal reasoning").

32. C. C. LANGDELL, *A SELECTION OF CASES ON THE LAW OF CONTRACTS*, i-v (1871).

33. See MINDA, *supra* note 25, at 13.

34. See Pierre Schlag, *The Problem of the Subject*, 69 TEX. L. REV. 1627, 1632-62 (1991).

35. *Id.* (explaining that the Langdellian jurist was not to consider the justice or injustice likely to flow from a decision).

36. See MINDA, *supra* note 25, at 13 (discussing how Langdellians believed their orthodoxy satisfied "the legal norms of objectivity and consistency").

37. See Thomas C. Grey, *Langdell's Orthodoxy*, 45 U. PITT. L. REV. 1, 16-20 (1983) (comparing the early formalistic application of the law to the application of a geometric theorem).

38. *Lochner v. New York*, 198 U.S. 45, 64 (1905).

39. See Richard A. Posner, *Legal Formalism, Legal Realism, and the Interpretation of Statutes and the Constitution*, 37 CASE W. RES. L. REV. 179, 182 (1986) (noting "[t]he result is Platonism: the idea that concepts exist 'out there,' like trees or rocks, rather than are created").

be studied scientifically.⁴⁰ Nevertheless, the early twentieth century Supreme Court was decidedly formalist in its approach to constitutional adjudication and interpretation. *Lochner* and its ill-fated progeny epitomized the narrow constitutional conceptualism of the era.⁴¹ The liberty of contract the Court vigorously protected, indeed froze into constitutional law in the early part of the twentieth century, preserved a private sphere of activity the Court treated as beyond governmental encroachment. Any activity that fell within that sphere was artificially cordoned off from government interference; conversely, any activity the Court determined was not within the imagined sphere of individual autonomy was fair game for the State.⁴² To the constitutional formalists it did not matter that social realities cut against the conception of individual autonomy. The formalists were not swayed by empirical evidence that there were, for example, inequities of bargaining power.⁴³

There is a temptation, however, to read *Lochner* too broadly as adverse to all state regulation. There were indeed judicially approved spheres in which the State was permitted to regulate, even if this meant substantial restrictions on individual autonomy. For example, the Court was more than willing to defer to the State on matters of public health, especially where medical and scientific opinion was divided. Thus, an early challenge to a compulsory vaccination law failed despite compelling theories and data from medical professionals who attached no value to vaccination, or indeed could even demonstrate with some authority that the vaccination harmed patients.⁴⁴ From the Court's perspective, there was high medical authority to the contrary, and the State was entitled to choose as between two sets of conflicting data or theories.⁴⁵ The formalist Court of the time actively avoided taking sides in such empirical debates. As Justice Harlan then put it: "Upon what sound principles

40. See FELDMAN, *supra* note 27, at 101.

41. See *Coppage v. Kansas*, 236 U.S. 1, 14–15 (1915) (invalidating state legislation outlawing "yellow dog" contracts); *Lochner*, 198 U.S. at 48–49 (invalidating state maximum hour laws for bakery employees); *Allgeyer v. Louisiana*, 165 U.S. 578, 590 (1897) (invalidating marine insurance statute).

42. See FELDMAN, *supra* note 27, at 100–01 (finding that "the [*Lochner*] majority assumed that there was a preexisting field or sphere of private activity and that any conduct that fell within that sphere was categorically protected from governmental interference").

43. See *Coppage*, 236 U.S. at 8–9 (refusing to consider inequality of bargaining power between individuals and corporate persons).

44. See *Jacobson v. Commonwealth*, 197 U.S. 11, 30 (1905) (upholding compulsory vaccination law).

45. *Id.*

as to the relations existing between the different departments of government can the court review this action of the legislature?"⁴⁶

This was not simply a matter of judicial restraint or sterile formalism. The early Court simply did not believe the state, or the courts, should be bound by the then-existing state of scientific art. While it was common knowledge that vaccination reduces disease by some measure, that was the end of the matter so far as the judicial branch was concerned.⁴⁷ The possibility that the legislature was wrong, and that science may yet show it to be wrong, was immaterial. The legislature was entitled to act according to common belief, and courts had no right to insist that the government make any empirical demonstration.⁴⁸ In other words, in the pre-empirical, and pre-balancing, eras, legislatures were entitled to deference concerning the side they took in empirical debates.⁴⁹

Early legal science—Langdellian and *Lochner*ian—was, thus, a science of logic, precedents, concepts, and rules. This formalism dominated early constitutional law, as *Lochner* and its progeny enshrined conceptualism as a science of constitutional interpretation. The state of the world "out there" was not permitted to upset the order of an internal system of rules based on logic and precedent. The next generation of scholars and judges would take legal "science" in a different direction.

B. Realism and the Post-formalist "Science" of Law

By any measure, there was indeed an abundance of conceptually-inspired judicial second-guessing during the *Lochner* era. Legal realists revolted against this formalism, in both its Langdellian and *Lochner*ian forms.⁵⁰ Realism, which by most conventional accounts held sway in the academy in the 1920s and 1930s, was viewed as promising a way out of the formalist straightjacket.⁵¹

46. *Id.* at 31; see also *Collins v. Texas*, 223 U.S. 288, 297–98 (1912) (upholding "the right of the state to adopt a policy even upon medical matters concerning which there is difference of opinion and dispute").

47. See *Jacobson*, 197 U.S. at 35 (explaining that common knowledge does not require evidence to establish its existence).

48. *Id.*

49. See *Lambert v. Yellowley*, 272 U.S. 581, 595 (1926) (allowing Congress to enforce the Eighteenth Amendment by imposing restrictions on prescription of alcoholic beverages, even though medical opinion was mixed).

50. MINDA, *supra* note 25, at 25 (noting the conventional account that realism "revolted against both Langdellian and constitutional law formalism").

51. See Roscoe Pound, *The Call For a Realist Jurisprudence*, 44 HARV. L. REV. 697 *passim* (1931) (discussing the growth of legal realism). One must be careful with the label "realist," since few agreed then or now upon who qualified as a realist thinker. I mean to

Ultimately, as one scholar has summarized the realist mood, the realists were committed “to telling it—whatever it happened to be—as it is.”⁵² In telling it as it is, some early realists were emboldened to ask why courts should not be looking behind the words and phrases of statutes to decide their constitutionality. Roscoe Pound, an early pragmatist, was particularly disturbed that constitutional issues were decided based upon the sharp, and artificial, line between law and fact. This formal division required constitutionality, as a legal question, to be tried by artificial criteria of general application and prevented effective judicial investigation or consideration of the situations of fact behind or bearing upon the statutes.⁵³ Here, then, was one of the earliest recognitions that the “realities” behind statutes and other governmental actions mattered—that what was “fact,” and what was “law,” could not readily be separated.⁵⁴

Constitutional realists pointed to Justice Holmes’s *Lochner* dissent as their early manifesto.⁵⁵ Justice Holmes argued that the formalism of *laissez-faire* constitutionalism was not a sound basis for constitutional decision-making.⁵⁶ The Constitution governed a pluralist society, he noted, and “the accident of our finding certain opinions natural and familiar or novel and even shocking ought not to conclude our judgment upon the question whether statutes embodying them conflict with the Constitution of the United States.”⁵⁷ Justice Holmes recognized certain fundamental social realities; most notably, for example, he asserted that constitutional rights and powers could not be determined with reference to some

use the term in its broadest, most generic sense, and to limit the label to those with whom the realist movement has been associated in conventional accounts. See DUXBURY, *supra* note 26, at 65–71 (discussing ambiguity of the term realism and philosophical disagreements among those believed to be in the realist camp); see also MINDA, *supra* note 25, at 26 (noting the critique of formalism-bound realists, but asserting that legal realism “has since remained somewhat of a mystery in the history of modern legal thought”).

52. DUXBURY, *supra* note 26, at 71.

53. Roscoe Pound, *Liberty of Contract*, 18 YALE L.J. 454, 458 (1909).

54. See Roscoe Pound, *Mechanical Jurisprudence*, 8 COLUM. L. REV. 605, 605 (1908) (contending that law exists as a means to an end). Pound was among the early pragmatists who emphatically rejected *Lochnerian* formalism in favor of an explicitly empirical approach. See Roscoe Pound, *The Scope and Purpose of Sociological Jurisprudence* (pts. 1–3), 24 HARV. L. REV. 591, 594 (1911), 25 HARV. L. REV. 140 (1912).

55. See, e.g., FELDMAN, *supra* note 27, at 112.

56. *Lochner v. New York*, 198 U.S. 45, 75 (1905) (Holmes, J., dissenting) (denouncing *laissez-faire* conceptualism).

57. *Id.* at 76; see also *id.* at 75 (noting that “the Constitution does not enact Mr. Herbert Spencers Social Statics [sic]”).

hypothetical free economic agent.⁵⁸

In other areas, too, there was a backlash against conceptualist thinking. To realists like Felix Cohen, sterile concepts were merely “transcendental nonsense.”⁵⁹ Realists believed that it was simply fantastic to suggest that courts could apply Langdellian rules and concepts in such a way as to definitively answer, for example, whether a court has jurisdiction over a corporation. To decide *where* a corporation resides, Cohen explained, is a metaphysical question, and a decision that one has jurisdiction merely provides “a label for a conclusion somehow reached through other means or methods.”⁶⁰ Nor could courts simply divine a party’s contractual intentions, for example, from rules and formal concepts; the best evidence of such things lay in objective indicators and participant behaviors.

For realists, then, data and social experience, not concepts, were to be the foundation for objective judicial decisionmaking.⁶¹ Indeed, realists, unlike their Langdellian predecessors, eagerly engaged sources of knowledge outside the law; they sought, in essence, to build a new, post-formalist “science” of law.⁶² This explains the realists’ affinity for, and popular connection to, Justice Holmes, who pointed to statistics, economics, and social and other sciences as holding the key to a more objective science of law.⁶³ Holmes famously captured the realist sentiment when he declared: “The life of the law has not been logic: it has been experience.”⁶⁴ He

58. See Cass R. Sunstein, *Lochner's Legacy*, 87 COLUM. L. REV. 873, 879 (1987) (describing Holmes’s view that the Constitution does not embody a particular economic theory). Holmes’s dissent, of course, ultimately became the majority view, and significant New Deal enactments were thereafter upheld. See David P. Currie, *The Constitution in the Supreme Court: The New Deal, 1931–1940*, 54 U. CHI. L. REV. 504, 504–506 (1987); see also FELDMAN, *supra* note 27, at 110 (remarking that “[a]s many realists became politically aligned with the New Deal, they supported exactly the type of liberal economic legislation that the *Lochner* Court had repeatedly invalidated”).

59. Felix Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV. 809, 820–21 (1935) (denouncing formalism and urging application of functional approach).

60. FELDMAN, *supra* note 27, at 111 (discussing Cohen’s critique of Langdellian formalism).

61. See Thomas Grey, *Holmes and Legal Pragmatism*, 41 STAN. L. REV. 787, 805 (1989) (noting that Holmes and other realists treated law as “situated, rooted in custom and shared expectations”).

62. See MINDA, *supra* note 25, at 30 (noting that “[p]rogressive realists accepted the basic tenets of Langdellian jurisprudence that ‘law is a science,’ but for them law was a social science” (emphasis in original)).

63. See O.W. Holmes, Jr., *The Path of the Law*, 10 HARV. L. REV. 457, 469 (1897) (asserting that “the man of the future is the man of statistics and the master of economics”).

64. OLIVER WENDELL HOLMES, *THE COMMON LAW* 5 (Mark D. Howe ed., 1963).

recommended consulting “[t]he felt necessities of the time, the prevalent moral and political theories, intuitions of public policy, avowed or unconscious, even the prejudices which judges share with their fellow-men.”⁶⁵ This was a pragmatic philosophy, based upon the idea that law was socially constructed, a matter of public policy that could not simply be discovered in books.⁶⁶ The post-formalist iteration of legal science thus rejected a science based upon rules and precedents in favor of a science based upon experience and the social world.

Modern social science became the new basis for controlling and limiting the open-ended type of policy narratives found in the law.⁶⁷ Many realists adopted and practiced the empirical scientific method,⁶⁸ they studied the law by observing physical phenomena, collecting and studying masses of data, and drawing various correlative and causative conclusions. This embrace of scientific methods was most prevalent with regard to a group of early realists, sometimes referred to as “empiricists.”⁶⁹ Some of these empiricists believed that legal rules and regulations could be empirically constructed—literally produced from mounds of data, which were mined using the available social science conventions.⁷⁰ There were also empiricists who, heeding Holmes’s call for a scientifically *predictive* jurisprudence,⁷¹ endeavored to predict outcomes based upon empirical observations, much in the way a chemist might hypothesize outcomes, and then test the hypotheses in scientific experiments.⁷² Together, the early empiricists believed that a true “science of law” had been conceived, thus legitimating the study of law as objectively grounded, and casting law, at last, as a true profession.

This empirical turn in the legal academy was part of a much larger turn toward the empirical in the 1920s and 1930s.⁷³ Social

65. *Id.*

66. FELDMAN, *supra* note 27, at 113 (noting that realists turned to experience as the source of objectivity).

67. MINDA, *supra* note 25, at 31.

68. *Id.* at 30.

69. *See* FELDMAN, *supra* note 27, at 113 (describing empirical approach to legal study).

70. *See generally* JOHN HENRY SCHLEGEL, *AMERICAN LEGAL REALISM AND EMPIRICAL SOCIAL SCIENCE* (1995) (providing a detailed account of the approach taken by empiricists).

71. *See* HOLMES, *supra* note 63, at 461 (explaining that “[t]he prophesies of what courts will do in fact, and nothing more pretentious, are what I mean by the law”).

72. *See* SCHLEGEL, *supra* note 70, at 81–210 (discussing, in detail, the methods and conclusions of the empiricists).

73. EDWARD A. PURCELL, JR., *THE CRISIS OF DEMOCRATIC THEORY: SCIENTIFIC*

scientists, for instance, began to turn to scientific objectivity as a benchmark for their studies of culture and society.⁷⁴ Seeking prestige and legitimacy, scholars sought to incorporate the apparent virtues of the natural sciences into the social sciences. “Only concrete, scientific investigations could yield true knowledge,” they believed, “and that knowledge was empirical, particular, and experimentally verifiable.”⁷⁵ Thus, “many scholars insisted that scientific knowledge must be wholly objective and based on concrete, universally verifiable data.”⁷⁶ “The only way they could build a scientific body of knowledge,” many scholars argued, “was by dealing with observable, physical phenomena that could be restudied, remanipulated, or remeasured by anyone who wished to test the conclusions.”⁷⁷

Legal and other scholars of the time believed the values and preconceptions of the researcher could be eliminated by a narrow focus on natural, “observable phenomena.”⁷⁸ The scientist’s function was to observe the “facts” and to “separate the verifiable, objective facts from the confused and subjectively colored interpretations that men habitually gave them.”⁷⁹ As Langdellians vacuumed concepts of context and data, empiricists emptied law of values and other supposed subjectivities. The empiricists’ “determination to make concrete empirical facts the touchstone for all analytical concepts seemed necessarily to exclude ideas of ‘ought’ in favor of facts about ‘is.’”⁸⁰

There were three principal difficulties which ultimately undermined the realists’ empirical turn. As this Article will demonstrate, these same three problems also plague constitutional empiricism.⁸¹ First, the realist version of legal science simply replaced the conceptualism of the formalists with a new conceptualism, one which treated the concepts and conventions of the social sciences as objective and universal.⁸² This social science conceptualism, while

NATURALISM & THE PROBLEM OF VALUE 15 (1973) (noting that by 1920, the “ideal of a science of society was firmly entrenched in American thought”).

74. *Id.* at 21 (commenting that “[s]ocial scientists interpreted the concept of scientific objectivity in different ways, but most of them agreed heartily that objectivity was the goal of their research”).

75. *Id.*

76. *Id.*

77. *Id.* at 21–22.

78. *See id.* at 22 (noting that empirical techniques were to place “the criteria of judgment beyond the scientist’s subjective evaluation”).

79. *Id.* at 22–23.

80. *Id.* at 91.

81. *See infra* Parts III–IV (critiquing constitutional empiricism).

82. *See* MINDA, *supra* note 25, at 30.

seeking authority outside the law, was blind to the notion that social science conventions, and the facts which they “discover,” are as socially constructed as realists themselves had exposed the Langdellian legal concepts to be. Legal realists, ironically, became “the new Langdellian policy analysts.”⁸³

Second, the legal empiricists and their counterparts in other disciplines collected heaps of data, but they had difficulty drawing conclusions from their observations, which often pointed in several directions at once.⁸⁴ With indeterminate data, the empiricists failed to advance either the rule-determination or predictive realist agendas. Essentially, empirical stalemates left them with nowhere to go.

Third, and more generally, the realists’ wide-open approach to legal interpretation seemed inexorably to lead to a moral relativism the realists had not anticipated, one which was particularly unsettling in the post-war environment.⁸⁵ Focusing solely on the methods of quantification, empiricists essentially passed over “the crucial problem of the nature of scientific knowledge and its relationship to human value judgments.”⁸⁶ The empiricists’ ethical relativism faltered under the weight of the totalitarian crisis in Europe and increasing pressure from scholars, religious and other, in the United States.⁸⁷ Thus, most of the substantial realist agenda, including the focus on empirical research, had essentially been abandoned by the 1940s, as realism gave way, in the conventional account, to the next jurisprudential turn or mood, which centered on various “process theories” of jurisprudence.⁸⁸

While all of this was going on in the academy, the Supreme Court remained relatively untouched by legal empiricism.⁸⁹ Early on, in *Muller v. Oregon*,⁹⁰ the Court was receptive to the data presented in the now-famous “Brandeis” brief, which contained “two pages of legal argument and well over a hundred of sociological statistics and

83. *Id.* at 31.

84. See SCHLEGEL, *supra* note 70, at 211–57 (analyzing reasons for the ultimate demise of empiricism).

85. See PURCELL, *supra* note 73, at 159–178 (describing the attack on legal realism).

86. *Id.* at 40.

87. See *id.* at 172 (describing charges of ethical relativism in the face of Naziism).

88. See FELDMAN, *supra* note 27, at 115–23 (describing legal process thought).

89. There were occasional flashes in early cases of empirical constitutional decision-making. For example, in some “dormant” commerce clause cases, the Court, in applying a formalist “direct-indirect” effects test, invalidated state laws based upon their demonstrated effect on commerce. See, e.g., *Seaboard Air Line Ry. v. Blackwell*, 244 U.S. 310 (1917) (invalidating state law as “direct” burden on ground that it required train to stop 124 times in 123 miles).

90. 208 U.S. 412 (1908).

analysis” designed to establish that long hours of work were harmful to women.⁹¹ The brief, and the Court’s apparent receptivity to it, appeared to indicate that the Court was set to make an empirical turn.

But in all likelihood, *Muller* did not turn on the empirical evidence; the justices of the time were not generally inclined to empiricism, and they appeared to value the brief not as social science *per se*, but as evidence for the “widespread belief” that long hours harmed women.⁹² In any event, *Lochner*’s generally formalist approach did not appear to be much affected by the apparent anomaly of *Muller*.

The seeds of constitutional empiricism, however, had been firmly planted. When Justice Brandeis joined the Court, he immediately encouraged the majority to consider empirical data in deciding constitutional issues.⁹³ “Resort to such facts,” he said in assessing the arbitrariness of governmental action, “is necessary, among other things, in order to appreciate the evils sought to be remedied and the possible effects of the remedy proposed.”⁹⁴ Others soon joined in the view that practical constitutional construction should replace the mechanical construction of the past.⁹⁵ Thus, in line with the realist conception of legal “science” at least some on the Court were apparently poised to look to experience and social science data to interpret the Constitution.

C. *Constitutional Balancing: The First Empirical Turn in Constitutional Law*

The Supreme Court ultimately acceded to the realists’ institutional critique of *Lochner*, but what then? As early as the 1930s, courts began, without explanation, to engage in a purported “balancing” of constitutional rights and interests.⁹⁶ Members of the

91. See *Id.* at 419 n.1; PURCELL, *supra* note 73, at 76.

92. See OWEN M. FISS, *THE TROUBLED BEGINNINGS OF THE MODERN STATE 1888–1910* at 175–76 (1993) (casting doubt upon the significance of the social science evidence in the Brandeis brief to the outcome in *Muller*).

93. See, e.g., *Truax v. Corrigan*, 257 U.S. 312, 356–57 (1921) (Brandeis, J., dissenting) (urging consideration of social and industrial context when assessing the constitutionality of a statute precluding injunction of certain employee strike activity); see also Aleinikoff, *supra* note 20, at 954 (discussing changes in Court composition and influx of empirical thinking).

94. *Truax*, 257 U.S. at 356–57 (Brandeis, J., dissenting).

95. See *Di Santo v. Pennsylvania*, 273 U.S. 34, 44 (1927) (Stone, J., dissenting) (calling for balancing and consideration of facts in “dormant” commerce clause cases).

96. See Aleinikoff, *supra* note 20, at 948–49.

Supreme Court, not content to return to pre-*Lochner* modes of construction, began to “question earlier constitutional truths, and they did so with an eye more to social facts than to abstract categories.”⁹⁷ This, then, was the beginning of the first empirical turn in constitutional adjudication and interpretation.

But why turn to constitutional balancing? As Professor Aleinikoff has noted, balancing had a “respectable intellectual pedigree,” with proponents like Holmes and Pound.⁹⁸ More than that, balancing was attuned to societal change; did not require that the Court adopt any particular theory of constitutional interpretation; and, methodologically, imported a “particularistic, case-by-case, common law approach that accommodated gradual change and rejected absolutes.”⁹⁹ As noted above, balancing was also consistent with other intellectual movements of the time, which eschewed universal truths in favor of naturalism and instrumentalism. “[E]mpirical investigation [became] the undisputed foundation of all knowledge and the validating criterion of all theory.”¹⁰⁰ Categorically-derived universals “gave way to culturally-based, small ‘t’ truths,”¹⁰¹ while “[t]he balancing judge could assume the role of a social scientist, trading deductive logic for inductive investigation of interests in a social context.”¹⁰²

Still, there had to be some limits, otherwise judges would be left free to invoke their personal preferences while purporting to objectively “weigh” interests. Balancing at least had to answer certain realist critics who claimed that law, by its very nature, could not yield “objective” principles or results. As Professor Aleinikoff suggested, the only way to meet that criticism was to point the balancing apparatus in the same direction social science had taken—toward outward signs and objective indicators of value.¹⁰³ “Just as a physicist could measure atomic weights without inquiring into values, so the balancer could discover that free speech outweighed governmental interests in public order without expressing a personal view on the result.”¹⁰⁴ Thus externalized, balancing proponents believed that their method could avoid both the subjective preference

97. *Id.* at 953–54.

98. *Id.* at 960.

99. *See id.* at 959–60.

100. PURCELL, *supra* note 73, at 61.

101. Aleinikoff, *supra* note 20, at 961.

102. *Id.* at 961.

103. *See* Aleinikoff, *supra* note 20, at 962–63 (concluding that “[t]he answer lay in externalizing the balancing process”).

104. *Id.* at 963.

pitfall of *Lochner* and the charges of skeptical realists.

Initially so popular that it “entered constitutional law like wild clover,”¹⁰⁵ balancing came to consume constitutional law. The expanse of constitutional doctrine produced by application of the balancing construct is truly impressive: First Amendment, Fourteenth Amendment, Fourth Amendment, procedural and substantive due process, and Commerce Clause doctrine, to name but a few.¹⁰⁶ Despite frequent and unrelenting criticism of the “difficult analytic and operational problems the method presents,”¹⁰⁷ courts show no sign of abandoning the balancing calculus. Indeed, as this Article contends, the courts appear to be attempting, through empiricism, to further objectify the process of constitutional decision-making.

Some theories of constitutional interpretation which were being developed in the academy seemed compatible with the balancing calculus. With some modifications and caveats, process theorists of the 1960s and 1970s, for example, believed that “right” answers could be derived from the balancing calculus. For balancing to do its intended work, courts would need “a conceptual understanding of the institutional functions and competency of different governmental agencies of the legal system.”¹⁰⁸ Assuming such knowledge, process theorists believed that democratic and judicial processes could legitimately take the place of relativism, leading to more accurate, objective, and legitimate decision-making.¹⁰⁹

Expanding upon the realists’ critique of *Lochner*, process theorists emphasized the primacy of institutional roles. As one commentator has described this aspect of process theory: “According to legal process, society creates and designates different legal institutions to resolve different kinds of societal problems. Courts are, quite simply, different from legislatures. Consequently, judges are not free to make law in the same way that legislators are free to do so.”¹¹⁰

The focus on process values and institutions in judicial decision-

105. *Id.*

106. *See id.* at 965–72 (discussing major constitutional areas dominated by balancing).

107. *Id.* at 972.

108. *See* MINDA, *supra* note 25, at 34. *See generally* Neil Duxbury, *Faith in Reason: The Process Tradition in American Jurisprudence*, 15 CARDOZO L. REV. 601 (1993) (describing the process tradition in American jurisprudence).

109. For a detailed discussion of the legal process movement, *see generally* William N. Eskridge, Jr. & Philip P. Frickey, *The Making of the Legal Process*, 107 HARV. L. REV. 2031 (1994).

110. FELDMAN, *supra* note 27, at 120.

making compelled courts to elaborate rational reasons for their decisions and to treat like cases alike (*stare decisis*). “Reasoned elaboration,” not scientific convention, would reduce the evil of subjective judging.¹¹¹ But reasoned elaboration, as process theorists conceived of it, applied only to the courts; legislatures, for example, were not required to elaborate reasons.¹¹²

Process scholars began to examine some of the Court’s more celebrated opinions and quickly found them wanting. The landmark opinion in *Brown*, for example, did not reflect well as an elaborative effort. Many scholars, including those who were morally sympathetic to its core holding, saw it as an unprincipled, result-oriented opinion, little better than *Plessy v. Ferguson*¹¹³ or *Lochner* itself.¹¹⁴ Reliance on empirical evidence, considered by many to be rather flimsy, only further undermined *Brown*.¹¹⁵ Indeed, noting the lack of “neutral principles” in cases like *Brown*, some prominent scholars suggested the Court should avoid adjudicating controversial “political” issues altogether.¹¹⁶

Much of the academic hand-wringing could be attributed to the Warren Court’s penchant for creating new rights and its enthusiasm for expanding old ones.¹¹⁷ Significant “fundamental” rights, both

111. See *id.* at 121 (concluding that “[r]easoned elaboration requires a judge always to give reasons for a decision, to articulate those reasons in a detailed and coherent manner, and to assume that ‘like cases should be treated alike’ ”).

112. See Herbert Wechsler, *Toward Neutral Principles of Constitutional Law*, 73 HARV. L. REV. 1, 15–16 (1959).

113. 163 U.S. 537 (1896).

114. See Wechsler, *supra* note 112, at 32–33 (criticizing *Brown*); see also FELDMAN, *supra* note 27, at 148 (noting that many scholars believed that *Brown*, *Roe*, and *Griswold v. Connecticut* were “substantively right—almost too right to dispute” (citations omitted)).

115. See generally Kenneth B. Clark, *The Desegregation Cases: Criticism of the Social Scientists’ Role*, 5 VILL. L. REV. 224 (1959–60) (supporting the use of social science evidence in desegregation cases); Stuart W. Cook, *Social Science and School Desegregation: Did We Mislead the Supreme Court?*, 5 PERSONALITY & SOC. PSYCHOL. BULL. 420 (1979) (evaluating the validity of sources cited in *Brown* in light of subsequent research); Harold B. Gerard, *School Desegregation: The Social Science Role*, 38 AM. PSYCHOL. 869 (1983) (criticizing the science cited in *Brown*); Ernest van den Haag, *Social Science Testimony in the Desegregation Cases—A Reply to Professor Kenneth Clark*, 6 VILL. L. REV. 69 (1960) (criticizing Kenneth Clark’s argument).

116. See, e.g., ALEXANDER M. BICKEL, *THE LEAST DANGEROUS BRANCH: THE SUPREME COURT AT THE BAR OF POLITICS* 184 (1962). Others, like John Hart Ely, sought more modestly to alter the focus of the process tradition, urging that deference to democratically-derived decisions was appropriate unless the decisions resulted from a malfunctioning or defective democratic process. See generally JOHN HART ELY, *DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW* (1980) (suggesting ways to modify the focus of the process tradition).

117. See FELDMAN, *supra* note 27, at 142–43 (describing the Court’s announcement in *Griswold* of penumbral rights and zone of privacy).

stand-alone and “penumbral,” blossomed during this period, some seemingly out of whole cloth. The Court had its defenders, to be sure.¹¹⁸ Many of these defenders were concerned that constitutional adjudication and construction seemed once again to be on the verge of a return to *Lochnerism*, as the Court premised constitutional rights not on any empirical or other “neutral” footing, but rather upon its own “common sense” view of what seemed to be “fundamental.”

In *Engel v. Vitale*,¹¹⁹ for example, the Court held that the daily recitation of a prayer in public schools violated the Establishment Clause on the ground that the “indirect coercive pressure upon religious minorities to conform to the prevailing officially approved religion is plain.”¹²⁰ In *Griswold v. Connecticut*,¹²¹ the Court announced a penumbral “right to privacy,” while at the same time attempting to assure observers that it had not overstepped its institutional role by simply inventing new constitutional rights.¹²²

Griswold, of course, set the stage for the Court’s decision in *Roe v. Wade*, perhaps the most divisive decision in modern constitutional law. The majority opinion, authored by Justice Blackmun, began by candidly acknowledging the emotion and predilections that (still) suffuse the abortion debate, but insisted nevertheless that the Court had sought to engage in “constitutional measurement” without reference to any subjective influences.¹²³

In fashioning a constitutional balance for the right to abortion, Justice Blackmun, who spent a summer engrossed in empirical findings and historical texts, placed considerable reliance on then state-of-the-art medical science and a survey of medical-legal history. Based on this empirical/legal background, Justice Blackmun announced the Court’s conclusion that the “right to privacy” was “broad enough to encompass a woman’s decision to terminate her pregnancy.”¹²⁴ Specifically, in addressing the State’s interest in prohibiting abortions, Justice Blackmun relied on medical data which indicated that abortion in early pregnancies, which had been highly dangerous in the nineteenth century, when most state legislation criminalizing abortion was adopted, had become “relatively safe.”¹²⁵

118. See Mark Tushnet, *Truth, Justice and the American Way: An Interpretation of Public Law Scholarship in the Seventies*, 57 TEX. L. REV. 1307, 1316 (1979).

119. 370 U.S. 421 (1962).

120. *Id.* at 431 (emphasis added).

121. 381 U.S. 479 (1965).

122. See *Griswold*, 381 U.S. at 484–86.

123. *Roe v. Wade*, 410 U.S. 113, 116 (1973).

124. *Id.* at 153.

125. *Id.* at 149; see also *id.* at 163 (noting “the now-established medical fact . . . that

Given that early abortions were deemed “relatively safe,” the State was held to have no interest in regulating the abortion procedure in the first trimester of pregnancy, although it could regulate in the interest of maternal health thereafter.¹²⁶ Again relying on medical knowledge, the Court held that the State’s “important and legitimate interest in potential life” becomes compelling at the point of fetal “viability,” after which the State can regulate in the interest of potential human life.¹²⁷

Justice Blackmun had seemingly turned balancing outward, but critics of the Court, perhaps predictably, were not satisfied. As had *Griswold*, the *Roe* decision led to renewed calls for more objective, neutral principles of constitutional construction. Despite the empirical grounding for the Court’s trimester framework, many believed, as then-Justice Rehnquist opined in dissent, that the trimester framework amounted to “judicial legislation” based on an improper second-guessing of legislative ends.¹²⁸ After *Roe*, it seemed to many that one hundred years of attempts at grounding law in objective indicators had come to nothing. Despite the apparent correctness of decisions like *Brown*, *Griswold*, and *Roe*, modernist scholars found it difficult to defend them on neutral jurisprudential grounds.¹²⁹ Thus, although the Court had sought, through balancing, to institute a scientific approach to constitutional interpretation and adjudication, many condemned the effort as falling short of neutrality and objectivity.

D. *The Continuing Search For Neutrality and Objectivity*

By the 1970s, two competing general approaches to constitutional interpretation had emerged. Interpretivists argued that judges should stick close to the text and the history, and their fair implications, and not construct new rights.¹³⁰ Non-interpretivists noted the inherent ambiguity of these sources and sought interpretive guidance from a variety of outside sources; different non-interpretivist theories offered diverse sources of meaning and value, including “tradition, societal consensus, and even natural law.”¹³¹ Still

until the end of the first trimester mortality in abortion may be less than mortality in normal childbirth”).

126. *Id.* at 149, 163.

127. *Id.* at 163–64.

128. *Id.* at 174 (Rehnquist, J., dissenting).

129. *See supra* note 114.

130. *See, e.g.,* Robert H. Bork, *Neutral Principles and Some First Amendment Problems*, 47 IND. L.J. 1, 8 (1971) (setting forth the interpretivist argument).

131. FELDMAN, *supra* note 27, at 149.

others, like John Hart Ely, condemned both of these approaches, insofar as they pretended to be based on objective sources; he pointed out that all of these supposedly neutral sources were subject to indeterminacy by virtue of the subjective uses courts and scholars made of them.¹³²

By the 1980s, the quest for objectivity in constitutional adjudication and construction had passed through periods of rationalism, empiricism, and transcendentalism, with no apparent end in sight. Many scholars seemed to come to a skeptical realist conclusion that constitutional adjudication was, and always would be, largely mired in subjectivity.¹³³ A variety of other disciplines have since been brought to bear in support of and against that argument.¹³⁴ Relying on Kuhnian paradigm thought,¹³⁵ for example, some scholars, echoing back to skeptical realists, went so far as to insist that objectivity was an impossible goal in constitutional interpretation.¹³⁶ Other normative constitutional scholars continue to insist that objectivity and autonomous law are within reach of judges so long as they select the “best or correct form of reasoning that would yield distinctive right answers to legal problems.”¹³⁷

For present purposes, however, it is more fruitful at this point to turn to an examination of what the courts, particularly the Supreme Court, are themselves doing with regard to the search for objective sources of constitutional interpretation. Part II, which follows, demonstrates that constitutional empiricism represents the most recent judicial attempt to establish a “science” of constitutional interpretation. This empirical turn resembles and is related to constitutional balancing. Constitutional empiricism represents a combination of the externalization of early academic empiricism and

132. See ELY, *supra* note 116, at 50.

133. See FELDMAN, *supra* note 27, at 153–54 (noting the shift in constitutional and other legal thought from the quest for objectivity to postmodernism).

134. See *Id.* at 150–62 (describing various interpretive theories and approaches).

135. See generally THOMAS S. KUHN, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* (2d ed. 1970) (rejecting traditional view of natural science as objective and linear, and arguing that scientists interpret the world through paradigms, or maps of reality).

136. See Owen M. Fiss, *Objectivity and Interpretation*, 34 STAN. L. REV. 739, 742–43 (1982) (analogizing the Constitution to an epic poem and discussing literary text analog to constitutional interpretation); see also Sanford Levinson, *Law as Literature*, 60 TEX. L. REV. 373, 377 (1982) (concluding that “[i]f we consider law as literature, then we might better understand the malaise that afflicts all contemporary legal analysis, nowhere more severely than in constitutional theory”).

137. KENT GREENAWALT, *LAW AND OBJECTIVITY* 197 (1992). See generally, BRUCE ACKERMAN, *WE THE PEOPLE: FOUNDATIONS* (1991) (defending judicial review on majoritarian grounds).

the judicial “science” of constitutional balancing.

II. THE FORMS AND FUNCTIONS OF CONSTITUTIONAL EMPIRICISM

Judicial common sense, the purported foundation for decisions like *Engel v. Vitale*, hardly qualifies as objective constitutional interpretation. Natural law principles similarly lack the objectivity required to settle divisive constitutional debates. Surely then one can grasp, as did the realists, the appeal of data and scientific conventions. Modern courts, led by the Supreme Court, have taken a similar naturalist tack in deciding constitutional cases. This Part demonstrates that constitutional empiricism is, in fact, a new method of constitutional adjudication and construction, one that turns to empirical data, scientific methods, and scientific conventions in search of greater decisional objectivity and accuracy.

This Part begins with a brief description of some basic, foundational empirical functions—judicial reliance upon statistical methods and data, judicial reference to empirical data as constitutional background, and empirically informed choices of constitutional rules—which are now rather routine in constitutional contexts. It then considers the core of the empirical turn—the empirical testing of legislative predicates and the empirical articulation and composition of various constitutional guarantees.

A. Foundational Functions

There has been a sea change in the judicial attitude toward the place of science, scientific data, and scientific methods in judicial processes generally, and in constitutional interpretation specifically. In *Craig v. Boren*,¹³⁸ Justice Brennan stated that “it is unrealistic to expect either members of the judiciary or state officials to be well versed in the rigors of experimental or statistical technique.”¹³⁹ By contrast, in his introduction to the latest edition of the Federal Judicial Center’s *Reference Manual on Scientific Evidence* (“*Reference Manual*”), published just over two decades after *Craig*, Justice Breyer wrote: “In this age of science, science should expect to find a warm welcome, perhaps a permanent home, in our courtrooms.”¹⁴⁰ Speaking of courts, including his own, Justice Breyer went on to state that judicial decisions “should reflect a proper scientific and technical

138. 429 U.S. 190 (1976).

139. *Id.* at 204.

140. FEDERAL JUDICIAL CENTER, *REFERENCE MANUAL ON SCIENTIFIC EVIDENCE* 2 (2d ed. 2000) (Introduction by Associate Justice Stephen Breyer).

understanding so that the law can respond to the needs of the public.”¹⁴¹

Indeed, knowledge of scientific methods and principles is now an unavoidable judicial necessity in a variety of constitutional contexts. The Court’s pronouncements in *Daubert* and its progeny underscored that federal courts are no longer to act as passive recipients of scientific and other technical data. The Court practiced what it preached. In his Introduction to the *Reference Manual*, Justice Breyer noted several representative examples from the Court’s recent docket. He stated that in recent years, the Court has frequently been called upon to examine the correlation between race and partisanship in redistricting cases,¹⁴² the reams of statistics in school desegregation cases,¹⁴³ and the validity of statistical procedures used in taking the decennial census.¹⁴⁴

As a result, the Court has begun to gain expertise in statistical methods and processes.¹⁴⁵ It has used that expertise in a growing number of contexts and is now a more sophisticated consumer of polling and other survey data.¹⁴⁶ None of this is to suggest that judges

141. *Id.*

142. *See, e.g.,* *Hunt v. Cromartie*, 526 U.S. 541, 547–48 (1999) (discussing statistics presented by parties in dispute concerning North Carolina congressional redistricting plan).

143. *See* *Freeman v. Pitts*, 503 U.S. 467, 475–82 (1992); *Bd. of Educ. of Okla. City Pub. Sch. Indep. Sch. Dist. No. 89, Okla. County, Okla. v. Dowell*, 498 U.S. 237, 242 (1991). *See generally* James E. Ryan, *The Limited Influence of Social Science Evidence in Modern Desegregation Cases*, 81 N.C. L. REV. 1659 (2003) (analyzing the Supreme Court’s use of social science evidence in desegregation cases and expressing doubt as to whether social science evidence affects outcomes in desegregation cases).

144. *See* *Utah v. Evans*, 536 U.S. 452, 479 (2002) (upholding “hot-deck imputation” statistical method); *Dep’t of Commerce v. United States H.R.*, 525 U.S. 316, 321 (1999) (invalidating use of statistical sampling).

145. The Court’s approach in the voting rights and redistricting cases has involved courts in considerably complex statistical analyses. Courts have been called upon to determine the extent to which racial identification is correlated with political affiliation, to master the intricacies of “boundary segment analysis,” *Easley v. Cromartie*, 532 U.S. 234, 243, 251 (2001), to determine whether registration is a “poor indicator of party preference,” *id.* at 252, and more generally, to decide whether statistics can ever demonstrate to a *mathematical certainty* that a district has been drawn solely by racial preference. *Id.* at 243.

146. *See, e.g.,* *Ramdass v. Angelone*, 530 U.S. 156, 172 (2000) (rejecting polling data in a habeas proceeding on numerous grounds, including sample size, population, failure to inquire as to reasons for responses, failure to provide evidence regarding amount of time provided to respondents, and lack of evidence that questions “were framed using methodology employed by reliable pollsters”). Lower courts, as well, have become more sophisticated in their examination of statistical and other data. *See id.* at 173 (citing numerous district court cases in which survey evidence has been excluded from evidence or been given limited weight).

or justices have become inter-disciplinary scholars or experts. But they are fast becoming learned novices, an observation which, as we shall see, has important implications for other empirical functions in constitutional cases.

In addition to improving its statistical skill set, the Court has begun regularly to consult social science and other data as background in constitutional cases. After *Roe*, the Court began to incorporate social science studies into constitutional adjudication in a variety of contexts, including abortion, sex discrimination, sexual harassment, and jury selection.¹⁴⁷ Over the course of the past three decades, scientific and other technical data and information have been a steady presence in a variety of constitutional contexts. In determining whether there is a right to die under the Constitution, for example, the Court consulted data and information concerning state of the art medical technology available to reduce or control the pain of terminally ill patients.¹⁴⁸ Similarly, in deciding whether indefinite noncriminal confinement of sexual psychopaths violates the Constitution, the Court has examined available scientific and other medical data and scientific definitions of serious mental disorders like pedophilia.¹⁴⁹

This turn to science has encouraged lower courts, which have themselves become more experienced empirical gatekeepers, to frame constitutional issues with reference to empirical foundations. In *United States v. Quinones*,¹⁵⁰ for example, a federal district court held that the Federal Death Penalty Act¹⁵¹ violates the Fifth Amendment's Due Process Clause because the demonstrated risk of false positives—wrongful convictions and executions—coupled with social science data regarding errors and faults in the appellate process, effectively eliminates defendants' ability to establish innocence.¹⁵² In *Herrera v. Collins*,¹⁵³ the Supreme Court implied that

147. See generally ROSEMARY J. ERICKSON & RITA J. SIMON, *THE USE OF SOCIAL SCIENCE DATA IN SUPREME COURT DECISIONS* (1998) (examining use of social science data in thirty-five Supreme Court cases involving abortion, sex discrimination, and sexual harassment from 1972 through 1992).

148. See *Washington v. Glucksberg*, 521 U.S. 702, 706 (1997) (upholding state prohibition on physician-assisted suicide); *Vacco v. Quill*, 521 U.S. 793, 797 (1997) (holding that prohibition on assisted suicide does not violate Equal Protection Clause); *Cruzan v. Dir., Mo. Dep't of Health*, 497 U.S. 261, 280 (1990) (upholding clear and convincing evidence requirement for refusing life-sustaining treatment).

149. See *Kansas v. Hendricks*, 521 U.S. 346, 359–60 (1997).

150. 205 F. Supp. 2d 256 (S.D.N.Y. 2002), *rev'd*, *United States v. Quinones*, 313 F.3d 49 (2002).

151. 18 U.S.C. §§ 3591–3598 (2002 & Supp. 2003).

152. *Quinones*, 205 F. Supp. 2d at 264.

the execution of an actually innocent person would offend the Constitution, but the Court was confident that innocent persons were not being condemned to die.¹⁵⁴ The district court in *Quinones* was of the view that the discussion in *Herrera* was “not informed by the ground-breaking DNA testing and other exonerative evidence developed in the years since.”¹⁵⁵ Scientific advancement, the Court concluded, had placed the entire discussion “on a new footing.”¹⁵⁶ Thus, some courts have begun to realize the utility of framing constitutional debates with reference to empirical data. *Quinones*, which called into question the major premise that innocent defendants were not being executed, is one of the boldest examples to date.

Finally, as a foundational matter, courts have used empirical data to assist them in choosing from among possible constitutional rules of decision.¹⁵⁷ This trend is particularly prominent in recent Fourth Amendment cases. In *Illinois v. Wardlow*,¹⁵⁸ for example, the Court examined the implications of flight from the scene on subsequent detentions. Illinois urged the Court to adopt a “bright-line” rule authorizing detentions in cases of unprovoked flight.¹⁵⁹ Petitioner, by contrast, urged a *per se* rule prohibiting such detentions, given the array of legitimate reasons one might flee the scene.¹⁶⁰ In choosing between these positions, the Court examined social science studies regarding “bystander victimization,” a concept which suggests that a person runs to avoid being killed or injured in the ensuing

153. 506 U.S. 390 (1993).

154. *Id.* at 417 (noting that a persuasive demonstration of actual innocence would render execution unconstitutional).

155. *Quinones*, 205 F. Supp. 2d at 263.

156. *Id.*; see also *Conant v. Walters*, 309 F.3d 629, 641–42 (9th Cir. 2002) (Kozinski, J., concurring) (noting, in response to government assertion that medical marijuana has no accepted medical use in treatment, several studies to the contrary).

157. Data not only impact the initial choice of rule; they also sometimes indicate whether a rule ought to be retained, or at least revisited. When the Court instituted the good faith exception to the Fourth Amendment’s exclusionary rule, for example, it assumed that the rule would have no appreciable effect on police misconduct. See *United States v. Leon*, 468 U.S. 897, 918–21 (1984). Although the Court seemed to leave open the possibility that if future data should indicate that the rule is having an appreciable negative effect, the Court might revisit the rule, it has not done so to date.

158. 528 U.S. 119 (2000).

159. See *id.* at 126 (Stevens, J., dissenting) (noting that the State asked the Court to “adopt a ‘bright line rule’ authorizing the temporary detention of anyone who flees at the mere sight of a police officer”).

160. See *id.* (noting petitioners’ argument for a rule to the effect that “the fact that a person flees upon seeing the police can never, by itself, be sufficient to justify a temporary investigative stop”).

encounter.¹⁶¹ The Court also examined data indicating that minorities and other persons in high crime areas flee because they believe contact with the police can itself be dangerous.¹⁶² Although the Court recognized that “scientific certainty” as to the motives of those who flee is impossible to achieve, the data convinced it that any per se rule, whether allowing or disallowing detentions based on flight, would be unwarranted. Accordingly, the Court retained the “totality of circumstances” approach it had previously applied.¹⁶³

In sum, empirical methods and data have become increasingly important in constitutional cases. But, these basic foundational functions were more or less inevitable by-products of a legal system increasingly presented with empirical claims. The remainder of the empirical turn the Court has made, by contrast, was not inevitable. The turn, described below, has returned courts to the empiricism of the early realists, who looked to scientific conventions for objectivity, but also, in a sense, to the Langdellian concept of legal science, the construction of rules from simplistic measuring and counting. The

161. See *id.* at 131 n.6 (Stevens, J., concurring in part and dissenting in part) (citing Sherman et al., *Stray Bullets and “Mushrooms”: Random Shootings of Bystanders in Four Cities, 1977–1988*, 5 J. QUANTITATIVE CRIMINOLOGY 297, 303 (1989)).

162. See *Wardlaw*, 528 U.S. at 131 n.7 (citing, inter alia, Johnson, *Americans’ Views on Crime and Law Enforcement: Survey Findings*, NAT’L INST. OF JUST. J. 13 (Sept. 1997)); S. Smith, *Criminal Victimization and Perceptions of Community Safety in 12 CITIES* 25 (June 1998)).

163. *Wardlaw*, 528 U.S., at 127 (Stevens, J., concurring). The Court took a somewhat similar approach in *Maryland v. Wilson*, where the Court decided that an officer may order the *passenger* in a lawfully stopped car to exit the vehicle. See 519 U.S. 409, 410 (1997). This was an extension of the rule announced in *Pennsylvania v. Mimms*, allowing an officer to order the *driver* of a lawfully stopped car to exit the vehicle. See *Pennsylvania v. Mimms*, 434 U.S. 106, 111 (1977) (per curiam) (establishing the driver exit rule). The Court concluded that data, which indicated that in 1994 “there were 5,762 officer assaults and 11 officers killed during traffic stops and pursuits,” indicated a weighty interest in officer safety. *Wilson*, 519 U.S. at 413. Balancing that interest against what it considered the minor liberty interest of the passenger, the Court held that passengers could be ordered from a lawfully stopped vehicle. See *id.* at 415. The dissenters did not contest the data, but did contest what, if any, probative value it had. They noted that the statistics “do not tell us how many of the incidents involved passengers”; nor did the data indicate how many assaults occurred after the passengers exited the vehicle, or whether there was a correlation, if any, between local practices with regard to ordering passengers out of the vehicle without suspicion and passenger assaults. *Id.* at 416–17 (Stevens, J., dissenting). Thus, the dissenters concluded, “the statistics are as consistent with the hypothesis that ordering passengers to get out of a vehicle increases the danger of assault as with the hypothesis that it reduces that risk.” *Id.* at 417 (Stevens, J., dissenting). They also pointed to data which supported the proposition that officers would benefit from the Court’s rule in only a “minuscule portion” of total traffic stops, while passengers would be significantly burdened. *Id.* at 418 (Stevens, J., dissenting) (concluding that the rule would be of “some possible advantage to police in only about one out of every twenty thousand traffic stops in which there is a passenger in the car”).

Supreme Court, which appointed lower courts to act as empirical gatekeepers, apparently has confidence that courts can accurately and objectively incorporate empirical methods and their products into constitutional decision-making.

B. Quantifying Governmental Interests and Purposes

Roscoe Pound and other early realist scholars suggested that courts should look behind legislative enactments, to the predicates supporting legislative decisions. This Section examines how state interests, governmental purposes, legislative predictions, and regulatory theories all have recently been subjected to empirical treatment. This empirical phenomenon cuts across a range of constitutional text. But, there has been a unified approach in the Supreme Court. As the Court expressed its new empiricism in one context: “The quantum of empirical evidence needed to satisfy heightened judicial scrutiny of legislative judgments will vary up or down with the *novelty* and *plausibility* of the justification raised.”¹⁶⁴ Novelty and plausibility are new empirical benchmarks for legislative predicates of all types.

1. Measuring State Interests in Health and Safety

As noted, *Roe* launched the courts on a path that now expressly requires that courts consider medical and scientific advancements with regard to fetal viability and abortion procedures.¹⁶⁵ The State’s interest in the potentiality of human life is scaled depending upon the stage of fetal development and must be balanced against the woman’s right to choose to terminate her pregnancy.¹⁶⁶ This scaling of interests is now, more than ever, empirically operationalized.

The intersection of constitutional and scientific principles came to pass most recently in *Stenberg v. Carhart*,¹⁶⁷ where the Court examined the constitutionality of Nebraska’s ban on so-called “partial birth” abortions. Nebraska’s statute did not contain any exception relating to the health of the mother, a circumstance the Court

164. *Nixon v. Shrink Mo. Gov’t PAC*, 528 U.S. 377, 391 (2000) (emphasis added).

165. *See, e.g., Planned Parenthood of Southeastern Pa. v. Casey*, 505 U.S. 833, 860 (1992) (remarking that “[w]e have seen how time has overtaken some of *Roe*’s factual assumptions: advances in maternal health care allow for abortions safe to the mother later in pregnancy than was true in 1973 . . . and advances in neonatal care have advanced viability to a point somewhat earlier” (citations omitted)).

166. *See Roe v. Wade*, 410 U.S. 113, 163 (1973) (describing when a state has a compelling interest in the health of the mother).

167. 530 U.S. 914 (2000).

apparently found to be novel.¹⁶⁸ The State argued that “partial birth” abortion procedures were not necessary to preserve maternal health, a proposition the Court apparently deemed implausible.¹⁶⁹

The perceived novelty and implausibility of the government’s interest led, as it now generally does, to heightened empiricism. The majority opinion reads like an obstetrics manual, complete with lengthy technical descriptions of abortion methods.¹⁷⁰ After it examined in finite detail the various methods of aborting fetuses, the Court proceeded to assess the available medical data concerning the safety of partial birth and a host of other abortive procedures. The Court compiled, examined, and analyzed voluminous data and studies concerning the number of abortions performed annually in the United States; the risks of mortality and complication from the various procedures; and, to the extent available, the number of partial birth abortions that had actually been performed.¹⁷¹

With all of this data at hand, the Court concluded that the empirical “upshot” was as follows: “a District Court finding that [the procedure in question] significantly obviates health risks in certain circumstances,” a “division of opinion among some medical experts over whether [the procedure] is generally safer, and an absence of controlled medical studies that would assist in resolving the medical questions.”¹⁷² Given this record, the Court concluded that the standard for whether a maternal health exception was required—where it is necessary in appropriate medical judgment¹⁷³—embodied “the judicial need to tolerate responsible differences of medical opinion.”¹⁷⁴ Ultimately, however, the majority was convinced that a “significant body of medical opinion” supported a conclusion that the procedure may bring greater safety than the alternatives.¹⁷⁵

The “upshot,” to use the Court’s term, was that the State could not empirically demonstrate its interest in banning this particular abortion procedure, particularly without a maternal health exception. Where medical authority was in dispute—a common circumstance—the tie was to go to patients and abortion providers. And because

168. *See id.* at 921–22.

169. *See id.* at 931–32 (arguing that a ban on partial birth abortions would create no risk to the health of women).

170. *See id.* at 924 (describing dilation and evacuation procedure).

171. *See id.* at 923–30 (describing procedures and studies).

172. *Id.* at 936.

173. *Id.* at 937 (quoting *Planned Parenthood of Southeastern Pa. v. Casey*, 505 U.S. 833, 879 (1992)).

174. *Id.*

175. *Id.*

Nebraska could not convince the Court that a health exception was “‘never necessary to preserve the health of women,’ ” the Court held that the statute interfered with the right to privacy.¹⁷⁶

Roe essentially forced future courts to measure state interests empirically. But, it did not preordain that where empirical evidence was in conflict, the state necessarily fails to meet its empirical burden. Even during the decidedly non-deferential *Lochner* era, the Court was willing to defer to states so long as there was some medical evidence to support their restrictions.¹⁷⁷ The Court did not wish to tie states’ discretion, or its own, too closely to the state of the medical art. *Stenberg* signals the extent to which this particular empirical framework has shifted.

2. Empirical Proof of “Real” Harms

Outside the weakest form of rationality review, it has never been enough for the government simply to *posit* a legitimate purpose for legislating. Courts exercising healthy judicial skepticism sometimes question legislative predicates.¹⁷⁸ Far more frequently, they focus on the fit between the means chosen by the government and its ends or purposes. With regard to legislative purpose, courts have traditionally relied upon legislative history—findings regarding the evil to be regulated or prohibited, as well as evidence gathered in a variety of ways, including through committee and subcommittee hearings.¹⁷⁹ This evidence is often gathered in response to a host of

176. *Id.* at 938 (quoting Reply Brief for Petitioners) (emphasis added). Justice Kennedy, who authored the principal dissent, accused the majority of “[c]l[as]ting aside the views of distinguished physicians and the statements of medical organizations,” not to mention the expressed views of the Nebraska legislature. *Id.* at 964–65 (Kennedy, J., dissenting). He accused the majority of viewing the procedure and the data “from the perspective of the abortionist, rather than from the perspective of a society shocked when confronted with a new method of ending human life[.]” thereby failing to give Nebraska’s substantial interests their due. *Id.* at 957–58 (Kennedy, J., dissenting). After canvassing the evidence and finding no basis for the conclusion that the partial birth abortion procedure offered any real safety advantages, Justice Kennedy opined that “[c]ourts are ill-equipped to evaluate the relative worth of particular surgical procedures” and that legislatures have “superior factfinding capabilities in this regard.” *Id.* at 968 (Kennedy, J., dissenting). States, he wrote, are permitted “to take sides in a medical debate, even when fundamental liberty interests are at stake.” *Id.* at 970. Nebraska, in his view, had presented “substantial and objective medical evidence” for its conclusion that the ban would not endanger the health of any woman. *Id.* at 969 (Kennedy, J., dissenting).

177. *See Jacobson v. Commonwealth*, 197 U.S. 11, 30 (1905) (upholding compulsory vaccination law in face of conflicting medical evidence).

178. *See, e.g., Nixon v. Shrink Mo. Gov’t PAC*, 528 U.S. 377, 393 (2000) (describing evidence to support state interest in campaign contribution limitations).

179. *See, e.g., Preseault v. Interstate Commerce Comm’n.*, 494 U.S. 1, 4–17 (1990) (referring to congressional reports and other legislative history in evaluating the

variables and concerns, including interest group and constituent pressures. This informal fact-gathering, coupled with institutional expertise, has generally been given substantial weight, even where heightened judicial scrutiny applies.¹⁸⁰ Courts have not generally challenged legislative predicates empirically.

Judicial review of governmental predicates has taken on a new form, an increased vitality, with the empirical turn. Now, when courts find a legislative predicate either “novel” or “implausible,” empiricism is scaled sharply upward. In these circumstances, the traditional conception of legislative history—committee reports, floor statements, findings, and the like—tends to fall short of the new empirical standards. Instead, legislative predicates and judgments must be empirically proven, with reference to studies and data. It is no longer uncommon for courts to demand that the government confirm suspected harms empirically.¹⁸¹

In the simplest context, the government points to a single, existing evil in support of legislation. The Telecommunications Act of 1996,¹⁸² for example, required cable operators who provide channels “primarily dedicated to sexually-oriented programming” either to “fully scramble or otherwise fully block” those channels or to limit their transmission to hours when children were unlikely to be viewing.¹⁸³ As the Court noted in *United States v. Playboy Entertainment Group, Inc.*,¹⁸⁴ the provision was enacted to address the phenomenon of “signal bleed,” by which households that did not pay

constitutionality of a federal statute); see also Neal Devins, *Congressional Factfinding and the Scope of Judicial Review: A Preliminary Analysis*, 50 DUKE L.J. 1169, 1178–80 (2001) (describing the legislative factfinding process). For a general survey of the elements of legislative history, see Jorge L. Carro & Andrew R. Brann, *The U.S. Supreme Court and the Use of Legislative Histories: A Statistical Analysis*, 22 JURIMETRICS J. 294, 298–306 (1982). See generally WILLIAM N. ESKRIDGE, JR. ET AL., *CASES AND MATERIALS ON LEGISLATION: STATUTES AND THE CREATION OF PUBLIC POLICY* 937–1012 (3d ed. 2001) (examining judicial use of legislative history).

180. See, e.g., *Burson v. Freeman*, 504 U.S. 191, 198 (1992) (upholding, under strict scrutiny, restrictions on activity near a polling place largely on the basis of history and state experience with elections).

181. This is not always the case, of course. Some governmental purposes require little empirical foundation. We know, for example, that the predicate for the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (“USA PATRIOT ACT”), Pub. L. No. 107–56, 115 Stat. 272 (codified as amended in scattered sections of U.S.C.A.), enacted in response to the terrorist attacks, is quite real. But this is an extreme example; most statutes are based on more speculative harms and not-so-obvious evils.

182. Pub. L. 104-104, 110 Stat. 136 (codified at 47 U.S.C. § 561).

183. 47 U.S.C. § 561(a)-(b) (2000).

184. 529 U.S. 803 (2000).

to receive these channels “may happen across discernible images of a sexually explicit nature.”¹⁸⁵

In *Playboy*, the Court invalidated the signal bleed provision on the ground that there was no “hard evidence” of a real harm to support the legislation.¹⁸⁶ Specifically, the Court noted the absence of empirical evidence demonstrating the *nationwide scope* of the signal bleed problem.¹⁸⁷ At trial, the government introduced an expert’s spreadsheet which estimated that “29.5 million children had the potential to be exposed to signal bleed.”¹⁸⁸ Dissatisfied with mere estimates, the Court indicated that the government bore the further burden of “confirm[ing] the accuracy of its estimate through surveys or other field tests”¹⁸⁹ It stated that “[w]ithout some sort of field survey, it is impossible to know how widespread the problem in fact is, and the only indicator in the record is a handful of complaints.”¹⁹⁰ The statistics the government had presented, in other words, were considered insufficient to demonstrate the statistical likelihood that any particular child would be exposed to signal bleed.¹⁹¹

Because there is no way to predict with certainty which predicates will be deemed novel or implausible, it always behooves government to make a substantial empirical showing. In *Edenfeld v. Fane*,¹⁹² for example, the Court invalidated a Florida ban on in-person solicitations by certified public accountants because there was no empirical evidence to support the state’s predicates—fraud, overreaching, and loss of independence.¹⁹³

In contrast to cases like *Playboy* and *Edenfeld*, however, the Court has sometimes relied on empirical evidence as if it has conclusively demonstrated the *existence* of the predicate evil. In

185. *Id.* at 808.

186. *Id.* at 819.

187. *See id.* at 823 (stating that “[t]he government has failed to establish a pervasive, nationwide problem justifying its nationwide daytime speech ban”).

188. *See id.* at 820.

189. *Id.*

190. *Id.* at 821.

191. Notwithstanding the empirical requirements, the Court was quick to point out that its disposition was “not to suggest that a 10,000–page record must be compiled in every case or that the Government must delay in acting to address a real problem; but the Government must present more than anecdote and supposition.” *Id.* at 822.

192. 507 U.S. 761 (1993).

193. *See id.* at 771 (noting that the State had presented no studies that suggest personal solicitation of prospective business clients by certified public accountants creates the dangers of fraud, overreaching, or compromised independence that the Board claims to fear).

Florida Bar v. Went For It, Inc.,¹⁹⁴ for example, the Supreme Court upheld Florida Bar rules prohibiting lawyers from using direct mail to solicit personal injury or wrongful death clients within thirty days of an accident.¹⁹⁵ The Bar defended its rules on the ground that they were necessary to protect the privacy and tranquility of personal injury victims.¹⁹⁶ In concluding that the Bar identified and demonstrated a non-speculative harm, the majority relied primarily upon statistical data contained in a 106-page summary prepared by the Bar, which was based upon a two-year study of the effects of lawyer advertising and solicitation.¹⁹⁷ This was sufficient to satisfy the Court's empirical standard.¹⁹⁸

Thus, the Court has treated empirical evidence, or its absence, as dispositive with regard to certain governmental predicates. In most cases, legislatures are well advised to make an empirical showing, given the amorphous "novelty" and "plausibility" benchmarks. But, there are some exceptions to this rule. In certain circumstances, the Court steadfastly refuses to engage its empirical compass at all. This Article will limit the discussion to two examples: the refusal to treat governmental claims of "secondary effects" empirically and the uneven application of empiricism to Fourth Amendment "special needs" searches and seizures.

If there is a governmental predicate which cries out for empirical treatment, it is the "secondary effects" rationale for zoning, regulating, and dispersing establishments based upon the effects government claims to be associated with them—prostitution, drug use, declining property values, public safety, and the like.¹⁹⁹ Many of

194. 515 U.S. 618 (1995).

195. *Id.* at 635.

196. *See id.* at 624.

197. *See id.* at 626.

198. Not all of the justices were impressed with the rigor of the Bar study. The same summary was denigrated by four dissenters as "noteworthy for its incompetence." *Id.* at 640 (Kennedy, J., dissenting). Among other things, the dissenters criticized the summary because it "includes no actual surveys, few indications of sample size or selection procedures, no explanations of methodology, and no discussion of excluded results." *Id.* There was, in addition, "no description of the statistical universe or scientific framework" to inform judicial use of the summary. *Id.* For the dissenters, who agreed that the government bore an empirical burden, these qualitative and quantitative flaws rendered the summary empirically useless. *Id.*

199. *See Young v. Am. Mini Theatres, Inc.*, 427 U.S. 50, 55 (1976) (stating that "[i]n the opinion of urban planners and real estate experts who supported the ordinances, the location of several such businesses in the same neighborhood tends to attract an undesirable quantity and quality of transients, adversely affects property values, causes an increase in crime, especially prostitution, and encourages residents and businesses to move elsewhere").

these effects would appear to be readily quantifiable. So far, however, the Supreme Court has maintained its position that local governments need not “conduct new studies or produce evidence independent of that already generated by other cities” to demonstrate the problem of secondary effects, “so long as whatever evidence the city relies upon is reasonably believed to be relevant to the problem that the city addresses.”²⁰⁰ Apparently, most on the Court do not view as novel or implausible the assertion that adult establishments—of whatever nature—bring with them a host of undesirable secondary effects.²⁰¹

The Court has been similarly reluctant to test the predicates for

200. *City of Renton v. Playtime Theatres, Inc.*, 475 U.S. 41, 51–52 (1986). In *City of Los Angeles v. Alameda Books, Inc.*, the Court’s most recent secondary effects decision, a plurality concluded that a city ordinance which prohibited more than one adult business from operating on the same premises validly targeted existing secondary effects. See 535 U.S. 425, 430 (2002). The ordinance was upheld even though the city had failed to study whether multiple-use adult establishments were in any way correlated with secondary effects. See *id.* at 430–31 (describing a 1977 study relied upon by city). The plurality permitted the city to extrapolate secondary effects correlated with multiple-use establishments from an earlier study of concentrations of individual adult establishments, and to rely upon extra-jurisdictional precedents involving disparate secondary effect restrictions. See *id.* at 440 (asserting that the city “is in a better position than the Judiciary to gather and evaluate data on local problems”).

201. This empirical pass in secondary effects cases does not appeal to all of the Court’s members. Justice Souter is the principal proponent on the Court for a heightened empirical requirement for secondary effects claims. He worries that deference to localities on secondary effects claims allows regulation of the content of speech, or of viewpoint, under the guise of effects regulation. See *Alameda Books*, 535 U.S. at 457 (urging that zoning regulations at issue be labeled “content correlated”). The risk of viewpoint discrimination, in Justice Souter’s view, is easily avoided by demanding that the city:

show by empirical evidence that the effects exist, that they are caused by the expressive activity subject to the zoning, and that the zoning can be expected to ameliorate them or to enhance the capacity of the government to combat them . . . without suppressing the expressive activity itself.

Alameda Books, 535 U.S. at 457 (Souter, J., dissenting).

He makes the common sense and straightforward point that the predicate secondary effects are “amenable to empirical treatment.” *City of Erie v. Pap’s A.M.*, 529 U.S. 277, 315 n.3 (2000) (Souter, J., concurring in part and dissenting in part). The government can readily make its case through, for example, crime statistics, police reports, and studies of property market value. Justice Souter argues that the Court’s precedents require that the government “make some demonstration of an evidentiary basis for the harm it claims to flow from the expressive activity, and for the alleviation expected from the restriction imposed.” *Id.* at 313 (Souter, J., concurring in part and dissenting in part). Justice Souter candidly admitted that in *Barnes v. Glen Theatre, Inc.*, 501 U.S. 560 (1991), in which a plurality of the Court upheld a similar ordinance, he did not require any such evidentiary showing. *Erie*, 529 U.S. at 315–17. He stated: “I should have demanded the evidence then, too, and my mistake calls to mind Justice Jackson’s foolproof explanation of a lapse of his own, when he quoted Samuel Johnson, ‘Ignorance, sir, ignorance.’” *Id.* (citations omitted).

special needs searches under the Fourth Amendment. These searches implicate government interests beyond the need for law enforcement, and are permitted without any showing of probable cause, and without a warrant.²⁰² Thus far, special needs have been found to support random, suspicionless drug testing of railroad personnel,²⁰³ customs officers,²⁰⁴ and public school students engaged in extracurricular activities.²⁰⁵

The Court has held that the “special need” upon which searches are predicated must be “substantial.”²⁰⁶ This does not mean, however, that the empirical showing itself must be substantial. The Court has been satisfied, in most instances anyway, with a minimal empirical demonstration of a real harm.²⁰⁷ Further, the Court has never required proof that random testing actually deters drug use among students or other groups.²⁰⁸ It has been content to allow the government to proceed as if this causal relationship exists.

Most recently, in *Board of Education of Independent School District v. Earls*,²⁰⁹ the Court relied on statistics and other data demonstrating a “nationwide drug epidemic” to uphold suspicionless drug testing of students engaged in extracurricular activities such as band and 4-H.²¹⁰ In *Chandler v. Miller*,²¹¹ by contrast, the Court

202. A search unsupported by probable cause nevertheless may be consistent with the Fourth Amendment “when ‘special needs, beyond the normal need for law enforcement, make the warrant and probable-cause requirement impracticable.’” *Griffin v. Wisconsin*, 483 U.S. 868, 873 (1987) (quoting *New Jersey v. T.L.O.*, 469 U.S. 325, 351 (1985) (Blackmun, J., concurring in judgment)).

203. See *Skinner v. Ry. Labor Executives’ Ass’n*, 489 U.S. 602, 634 (1989).

204. See *Nat’l Treasury Employees Union v. Von Raab*, 489 U.S. 656, 679 (1989).

205. See *Bd. of Educ. of Indep. Sch. Dist. No.92 of Pottawatomie County v. Earls*, 536 U.S. 822, 837 (2002); *Vernonia Sch. Dist. 47J v. Acton*, 515 U.S. 646, 665 (1995).

206. *Chandler v. Miller*, 520 U.S. 305, 318 (1997). According to the Court, the need must be “important enough to override the individual’s acknowledged privacy interest, sufficiently vital to suppress the Fourth Amendment’s normal requirement of individualized suspicion.” *Id.*

207. See *Vernonia Sch. Dist.*, 515 U.S. at 648–50 (relying on district court findings, based on a few disciplinary reports and a scattering of other slim anecdotal evidence, that student athletes, who were subjected to random drug searches, were among the leaders of the drug culture); *Skinner*, 489 U.S. at 607–08 (citing record evidence indicating some railroad employees used drugs).

208. Recent empirical evidence suggests that drug testing of the sort undertaken in *Earls* does not deter students drug use. See Greg Winter, *Study Finds No Sign That Testing Deters Students Drug Use*, N.Y. TIMES, May 17, 2003, at A1, (describing study which found drug use just as prevalent in schools with testing as in those without it).

209. 536 U.S. 822 (2002).

210. *Id.* at 834; see also *Nat’l Treasury Employees Union v. Von Raab*, 489 U.S. 656, 675 (1985) (concluding that “[i]t is sufficient that the Government have a compelling interest in preventing an otherwise pervasive societal problem from spreading to the particular context”).

refused to rely upon empirical evidence of a *national* drug problem, invalidating a Georgia law requiring candidates for elective office to submit to and pass a drug test because the state failed to produce any empirical evidence of a *localized* special need for the searches.²¹²

In sum, “novelty” and “plausibility” benchmarks have produced inconsistent results. Some harms are apparently so evident to the Court that no empirical showing need be made, while others require a marshalling of considerable data. Cable signal bleed and professional corruption are harms which are subject to heightened empiricism, while secondary effects and drug abuse generally are not. In a variety of constitutional contexts, the Court acts much like a scientific panel, picking and choosing which predicates to examine and which evidence to credit in the course of that examination.

3. Quantifying “Substantial Effects,” “Congruence,” and “Proportionality”

Constitutional empiricism is also increasingly utilized to test the predicates underlying laws enacted pursuant to the express powers of Congress. This has been a particularly noteworthy empirical turn. Congress ordinarily is not required to demonstrate an empirical basis for its predicates under the deferential rationality standard of review which applies to exercises of the commerce, spending, and other express powers. In recent cases, however, the Court has indicated that when it construes Congress’s constructions of its own power to legislate as “novel” or “implausible,” empirical proof is required to uphold them.

The empirical turn in this context can be traced to *United States v. Lopez*,²¹³ where the Court refused to defer to Congress’s judgment that possession of a handgun within a school zone “substantially affected” interstate commerce.²¹⁴ Congress had not made any

211. 520 U.S. 305 (1997).

212. *Id.* at 319–20. One might argue that the different contexts—education and public elections—call for different levels of deference to decision-makers. Educators in particular receive substantial judicial deference to pursue their mission. But the fact remains, as an empirical matter, that there is no evidence of a “special need”—a “drug problem”—in either of these local contexts. And whatever deference is due to schools in matters of curriculum or educational mission, they surely have no greater expertise in determining whether a drug problem exists than do the nation’s legislatures. The Court has yet to elaborate the distinction in any event.

213. 514 U.S. 549 (1995).

214. *See id.* at 567 (noting that “[t]he possession of a handgun in a local school zone is in no sense an economic activity that might, through repetition elsewhere, substantially affect any sort of interstate commerce”).

findings to this effect.²¹⁵ The Court agreed with the government that “Congress *normally* is not required to make formal findings as to the substantial burdens that an activity has on interstate commerce.”²¹⁶ Where such burdens of effects were not apparent to the “naked eye,” however, the Court at least reserved the right to require findings.²¹⁷ Mere institutional expertise or experience, including a history of regulation of firearms, would not suffice.²¹⁸

Whereas the Court has, at least for the moment, stopped short of full-blown empiricism in the commerce area, perhaps requiring findings only in close cases, it has consistently engaged empirical benchmarks under Section 5 of the Fourteenth Amendment.²¹⁹ Section 5 is an express grant of power to Congress to enact all “appropriate” laws to enforce the rights guaranteed under Section 1 of the Fourteenth Amendment, including the equality guarantee.²²⁰ The Court has consistently maintained that “[i]t is for Congress in the first instance to ‘determin[e] whether and what legislation is needed to secure the guarantees of the Fourteenth Amendment,’ and its conclusions are entitled to much deference.”²²¹ But the Court has, at the same time, refused to grant any deference to a congressional determination concerning what constitutes a constitutional violation, noting that Section 5 gave Congress only the power to enforce rights,

215. See *id.* at 562–63 (noting lack of congressional findings).

216. *Id.* at 562 (emphasis added).

217. *Id.* at 563.

218. *Id.* at 563. Issuing findings, or even compiling a record, will provide no guarantee of legislative success where the legal theory that Congress proceeds upon is, itself, considered novel or implausible. In the course of passing the Violence Against Women Act (“VAWA”), Congress compiled a vast empirical record in support of its detailed findings that violence against women has a negative impact on commerce and the national economy. See *United States v. Morrison*, 529 U.S. 598, 620 (2000) (describing record). The Court conceded that the record was extraordinary in the breadth of its findings, and the data compiled in support of those findings, but held that all of this effort was for naught. *Id.* at 614–17. The mountain of data which supported VAWA included reports on gender bias from twenty-one states; data demonstrating the pervasiveness of domestic violence against women; and studies concerning the incidence and effects of rape. *Id.* at 630–34 (Souter, J., dissenting) (citing findings and evidence). Congress’s exercise of the commerce power rested on the aggregate effects such violence had on economic activity, a theory of regulation the Court said it had rejected in *Lopez*. See *id.* at 615. The dissenters argued in vain that although “the methodology of particular studies may be challenged,” the evidence before Congress amply supported the rationality of VAWA. *Id.* at 634 (Souter, J., dissenting).

219. See *supra* note 216.

220. See U.S. CONST. amend. XIV, § 5.

221. *City of Boerne v. Flores*, 521 U.S. 507, 536 (1997) (quoting *Katzenbach v. Morgan*, 384 U.S. 641, 651 (1966)).

not to affirmatively change them.²²² To ensure that future exercises of the Section 5 power are within the permissible enforcement realm, the Court recently announced that measures enacted pursuant to Section 5 must exhibit a “*congruence and proportionality* between the injury to be prevented or remedied and the means adopted to that end.”²²³

In several recent cases, the Court has invalidated measures enacted pursuant to Section 5 based upon a lack of empirical support for the legislative predicate.²²⁴ Where the Court deems Congress’s predicate for regulation to be either novel or implausible, in light of the Court’s precedents, it regularly insists upon an empirical demonstration of “congruence” and “proportionality.”²²⁵ Section 5 empiricism takes the form of heightened scrutiny of what the Court views as Congress’s legislative record. Statements on the floor or in committee reports, as well as legislative findings, are relevant to this inquiry, but they are not sufficient. There must, in addition, be substantial data—surveys, studies, anecdotal accounts—to satisfy the Court that Congress is within the parameters of the congruence and proportionality standard. In a recent series of cases, the same bare majority of the Court has found the empirical evidence lacking, while the remaining justices have expressed satisfaction with Congress’s empirical showing.²²⁶

*Board of Trustees of the University of Alabama v. Garrett*²²⁷ is perhaps the best example of the heightened end of the Court’s empirical scale. In *Garrett*, the Court invalidated the state-suit

222. *See id.* at 519.

223. *Id.* at 520 (emphasis added).

224. *See Fla. Prepaid Postsecondary Educ. Expense Bd. v. College Savings Bank*, 527 U.S. 627, 644–46 (1999) (invalidating an attempt by Congress to abrogate state Eleventh Amendment immunity to enforce the Patent and Plant Variety Protection Remedy Clarification Act, finding little proof of “widespread and persisting” patent violations and almost no evidence that Congress even considered the issue of state remedies); *see also* *Kimel v. Fla. Bd. of Regents*, 528 U.S. 62, 89 (2000) (invalidating 1974 extension of Age Discrimination in Employment Act of 1967 authorizing federal damage suits by state employees against the states as sovereigns as “an unwarranted response to a perhaps inconsequential problem”); *United States v. Morrison*, 529 U.S. 598, 626–27 (2000) (invalidating VAWA under Section 5 in part because the record failed to indicate that discrimination against victims of gender-motivated crimes existed in all, or even most, states). *But see* *Nev. Dep’t of Human Res. v. Hibbs*, 123 S. Ct. 1972, 1979 (2003) (relying on 1990 Bureau of Labor statistics in upholding Family and Medical Leave Act of 1993).

225. *See, e.g., Fla. Prepaid*, 527 U.S. at 640 (noting that there was little to no evidence that state patent infringement was a widespread problem).

226. *See* cases cited *supra* note 224.

227. 531 U.S. 356 (2001).

provision of the Americans with Disabilities Act (“ADA”).²²⁸ The Court began with an analysis of the “metes and bounds of the constitutional right in question.”²²⁹ Under the Court’s equal protection precedents, discrimination against the disabled was subject only to rationality review.²³⁰ Insofar as Congress purported to remedy employment discrimination by the states against the disabled, it faced a decidedly uphill battle. Conducting an admittedly “close review” of the voluminous legislative materials, the Court purported to find only six *real* instances of unlawful state action, as opposed to arguably unlawful action by private parties.²³¹ The Court stated that even if these examples had not been “described out of context” by the dissenters, a mere six examples did not rise to the level of the pattern of unconstitutional activity required for Congress to legislate under Section 5.²³²

228. *Id.* at 360.

229. *Id.* at 368.

230. *See* *City of Cleburne v. Cleburne Living Center*, 473 U.S. 432, 448 (1985) (reviewing discrimination against mentally disabled under rationality standard).

231. *Garrett*, 531 U.S. at 869–70.

232. *Id.* at 370. The majority dismissed the dissent’s contention that the record contained evidence of a host of incidents of unlawful discrimination, dismissing these as “unexamined, anecdotal accounts” of adverse treatment not even cited by Congress itself in its findings. *Id.* at 370; *see also id.* at 370 n.7 (dismissing statements concerning “around 50” incidents of discrimination in employment on the ground that “most of them are so general and brief that no firm conclusion can be drawn”). Absent a more systematic demonstration of remedial purpose, the Court refused to sanction suits against the states. Justices Kennedy and O’Connor, in concurrence, expressed their own empirical doubts. They believed that if state discrimination against the disabled were a “real” problem, confirming judicial documentation in the form of extensive litigation and other evidence of constitutional violations would have been presented. *Id.* at 376 (Kennedy, J., concurring). The dissenters accused the majority of blurring the separation of powers with its empirical standards, and of treating the legislative record “as if it were an administrative agency record.” *Id.* at 376 (Breyer, J., dissenting). According to the dissent, in addition to detailed findings of societal discrimination against the disabled, Congress compiled a “vast legislative record,” which included a voluminous task force report and several studies demonstrating adverse treatment of persons with disabilities in employment and other contexts. *Id.* at 377–78. The dissent noted that Congress had held thirteen hearings, and had relied on “its own prior experience gathered over forty years during which it contemplated and enacted considerable similar legislation.” *Id.* at 377. Finally, the dissent also pointed to what it described as “roughly 300 examples of discrimination by state governments” in the record. *Id.* at 379. These examples were collected and presented in an appendix. *Id.* at 391–424 (Appendix C). Of course, the dissenters acknowledged that many of these examples were anecdotal in nature, and not contained in rigorous empirical studies. But “Congress, unlike courts, must, and does, routinely draw general conclusions—for example, of likely motive or of likely relationship to legitimate need—from anecdotal and opinion-based evidence of this kind, particularly when the evidence lacks strong refutation.” *Id.* at 380. Nor, the dissent noted, has the Court “traditionally required Congress to make findings as to state discrimination, or to break down the record evidence, category-by-category.” *Id.*

Garrett represents the typical outcome in recent Section 5 cases. But, the Court does not invariably find Congress's Section 5 legislation to be based upon novel or implausible predicates. In *Nevada Department of Human Resources v. Hibbs*,²³³ the Court's most recent Section 5 case, the Court upheld provisions of the Family and Medical Leave Act of 1993 authorizing state employees to sue their employers in federal court for discriminatory application of family leave benefits.²³⁴ The Court, purporting to work within the same empirical framework it utilized in *Garrett* and other recent Section 5 cases, concluded that Congress in fact had the requisite empirical evidence of a pattern of constitutional violations on the part of the states in this area.²³⁵ The majority purported to find such evidence in surveys of *private* sector employees regarding their leave policies, anecdotal evidence regarding public sector leave policies, and inferences of discriminatory impact where leave policies vested discretion in employers.²³⁶ The relatively lenient empiricism in *Hibbs* suggests that state gender discrimination is not considered to be as novel or implausible as state discrimination against the disabled. Thus, where the Court is comfortable with Congress's predicate, it scales empiricism downward.

Empiricism would appear to be ill-suited to judicial review of Congress's exercise of its express powers, which have traditionally been reviewed deferentially. But, the Court has expressed a desire for findings in "close" cases under the Commerce Clause. It has gone even further in Section 5 cases, sometimes requiring a detailed empirical showing of congruence and proportionality under some form of heightened scrutiny. As *Hibbs* demonstrates, however, the empiricism is scaled depending upon the Court's view of the novelty

233. 123 S.Ct. 1972 (2003).

234. See Family and Medical Leave Act of 1993, § 102(a)(1)(C), 29 U.S.C. § 2612(a)(1)(C).

235. *Hibbs*, 123 S. Ct. at 1978–80.

236. See *id.* at 1979 (citing study indicating that thirty-seven percent of private employers had maternity leave policies). This time the dissenters, in a rare reversal of roles, argued that the Court had given "superficial treatment" to the *Boerne* requirements. *Id.* at 1987 (Kennedy, J., dissenting). The Court's "simple recitation of a general history of employment discrimination against women" did not satisfy the dissenters that Congress had proceeded based upon a sound empirical record. *Id.* at 1987. The dissenters cited *Garrett* for the proposition that private sector discrimination, while relevant, could not be dispositive under Section 5. *Id.* In addition, the dissenters noted that the Court's empirical evidence of disparate impact was the product of conjecture based on data relating to *federal* employers. *Id.* at 1988. In sum, the dissenters concluded that "the evidence fails to document a pattern of unconstitutional conduct sufficient to justify the abrogation of State's sovereign immunity." *Id.* at 1991.

and plausibility of Congress's legislative predicate.

4. Empirical Demonstration of Invidious and Remedial Purposes

Smoking out "invidious" governmental purposes is a complex endeavor.²³⁷ To enforce the guarantees of the Equal Protection Clause, courts need to know whether the government was motivated by a desire to take real differences into account, or whether its purpose was more invidious, perhaps to discriminate on some forbidden basis. In undertaking this sensitive inquiry, the Supreme Court has treated as inherently novel and implausible the proposition that purpose can be inferred from discriminatory or differential impact.²³⁸ Accordingly, the Court has applied a heightened empirical requirement to such claims. At the same time, the Court has generally treated as novel and implausible government claims that it must use race affirmatively, to remedy the effects of past racial discrimination. This proposition has also generally been subjected to a heightened empirical requirement.

Disparate impact alone, the Court has held, is not a sufficient basis for inferring invidious purpose, although it may lend some support to an inference of discrimination.²³⁹ Apparently, only a stark statistical pattern, one that is "irresistible, tantamount for all practical purposes to a mathematical demonstration"²⁴⁰ will satisfy the empirical standard. *McCleskey v. Kemp*²⁴¹ is the quintessential example of the impossible empirical hurdle that applies to disparate

237. This is apparent in cases like *Craig v. Boren*, 429 U.S. 190 (1976), where the Court expressed doubt concerning judicial competence to base equal protection decisions on statistical data. *Id.* at 204. Justice Brennan was particularly concerned that the statistics *themselves* might be an artifact of gender discrimination. *Id.* at 203 n.14. He concluded that proving broad sociological propositions by statistics is a dubious business, and one that inevitably is in tension with the normative philosophy of the Equal Protection Clause. *Id.* at 204.

238. See generally Charles R. Lawrence III, *The Id, the Ego, and Equal Protection: Reckoning with Unconscious Racism*, 39 STAN. L. REV. 317 (1987) (discussing and critiquing the Court's treatment of disparate impact claims under the Equal Protection Clause).

239. See *Washington v. Davis*, 426 U.S. 229, 242 (1976) (explaining that "[d]isproportionate impact is not irrelevant, but it is not the sole touchstone of an invidious racial discrimination forbidden by the Constitution. Standing alone, it does not trigger the rule, that racial classifications are to be subjected to the strictest scrutiny and are justifiable only by the weightiest of considerations" (citations omitted)).

240. *Gomillion v. Lightfoot*, 364 U.S. 339, 341 (1960); see also *Yick Wo v. Hopkins*, 118 U.S. 356, 373 (1886) (declaring that the administration of an ordinance prohibiting operation of 310 laundries housed in wooden buildings without permits whereby all but one white operator, but none of over 200 Chinese operators, received permits, demonstrated invidious purpose).

241. 481 U.S. 279 (1987).

impact claims under the Equal Protection Clause. The core issue in *McCleskey* was whether “a complex statistical study that indicates a risk that racial considerations enter into capital sentencing determinations” demonstrated that petitioner’s capital sentence violated the Eighth or Fourteenth Amendment.²⁴²

The “Baldus Study,” which consisted of a 230-variable examination of more than 2,000 murder cases in Georgia during the 1970s, was offered as proof of invidious, purposeful discrimination.²⁴³ The study demonstrated that imposition of the death penalty was strongly correlated both with the race of the defendant and with the race of the victim.²⁴⁴ The study concluded that defendants who killed white victims were 4.3 times as likely to be sentenced to death, and that black defendants were 1.1 times as likely as other defendants to be sentenced to death.²⁴⁵ Taken as a whole, the Baldus Study concluded that “black defendants . . . who kill white victims have the greatest likelihood of receiving the death penalty.”²⁴⁶ The Court held that the study’s findings and conclusions were insufficient to demonstrate purposeful racial discrimination in the administration of the death penalty.²⁴⁷

The Court continues to subject to heightened empirical scrutiny statistics that are offered in support of disparate effects challenges. It has held, for example, that minority defendants are not entitled to discovery regarding the prosecution’s decision to seek the death penalty unless they empirically demonstrate *both* discriminatory effect and discriminatory intent.²⁴⁸ In *United States v. Bass*,²⁴⁹ the

242. *Id.* at 282–83.

243. *Id.* at 286–87.

244. *Id.*

245. *Id.* at 287.

246. *Id.*

247. *Id.* at 297. The Court sought to distinguish contexts in which it had accepted similar statistics as proof of invidious purpose, such as jury venire and Title VII cases. *Id.* at 350. See, e.g., *Bazemore v. Friday*, 478 U.S. 385, 386–87 (1986) (per curiam) (accepting multiple regression analysis to prove Title VII violation); *Castaneda v. Partida*, 430 U.S. 482, 495 (1977) (invalidating jury selection where there was 2-to-1 disparity between Mexican-Americans in county population and those summoned for grand jury duty). The Court refused to accord the statistics in the Baldus Study similar weight, indeed any weight, nominally because there were a greater number of decision makers involved in the decision to impose the penalty, and far more independent variables relevant to the challenged decision. *McCleskey*, 481 U.S. at 294–95. Under the circumstances, according to the Court, it was inappropriate to draw any inference at all with regard to purpose. *Id.*

248. See *United States v. Armstrong*, 517 U.S. 456, 465 (1996) (stating that “[t]he claimant must demonstrate that the federal prosecutorial policy ‘had a discriminatory effect and that it was motivated by a discriminatory purpose’ ” (citations omitted)).

249. 536 U.S. 862 (2002) (per curiam).

Court reversed the Sixth Circuit's ruling in favor of discovery, which was based upon nationwide statistics demonstrating that "[t]he United States charges blacks with a death-eligible offense more than twice as often as it charges whites."²⁵⁰ In this context, the Court held that nationwide data could not be used to demonstrate any *particularized* harm to the defendant.²⁵¹

In addition to disparate effects challenges, the Court has indicated on several occasions that heightened empiricism applies to claims that the government must take race into account in distributing benefits or burdens to remedy past discrimination. This proposition is also generally considered novel and implausible.²⁵² The Court has

250. *Id.* at 863 (quoting *United States v. Bass*, 2001 Fed. App. 03408, 266 F.3d 532, 538–39 (6th Cir. 2001)). The data relied upon by the Sixth Circuit was reported in U.S. DEPT. OF JUSTICE, *THE FEDERAL DEATH PENALTY SYSTEM: A STATISTICAL SURVEY* (1988–2000) (Sept. 12, 2002).

251. *Bass*, 536 U.S. at 864.

252. The Court's recent affirmative action rulings concerning the University of Michigan admissions process do not implicate this empirical rule. See *Gratz v. Bollinger*, 123 S. Ct. 2411, 2427 (2003) (invalidating university admissions process which assigned numerical advantage to minority applicants); see also *Grutter v. Bollinger*, 123 S. Ct. 2325, 2347 (2003) (upholding law school admissions process which consisted of "a narrowly tailored use of race" to achieve the compelling interest of increased diversity). The law school did not claim that it needed to utilize race in order to remedy a history of past discrimination, but rather that it had a compelling interest in student diversity. *Id.* at 2339. Relying on *Regents of the Univ. of Cal. v. Bakke*, 438 U.S. 265 (1978), the Court agreed. *Id.* at 2341. Although the Court cited some social science evidence to support its conclusion, it apparently concluded that the need for diversity was neither a novel nor implausible predicate. See *id.* at 2340 (citing social science literature discussing diversity). By and large, the Court deferred to the university's assertion that diversity was a compelling interest in the educational context. See *Grutter*, 123 S. Ct. at 2341. It thus avoided the heated empirical debate which had occurred in the Sixth Circuit concerning, first, whether social science evidence supported the claim that diversity was a compelling interest, and, second, whether the university had utilized a "quota" in making admissions decisions. See *Grutter v. Bollinger*, 288 F.3d 732, 748 (6th Cir. 2002) (discussing Patricia Gurin, *Reports submitted on behalf of the University of Michigan: The Compelling Need for Diversity in Higher Education*, 5 MICH. J. RACE & L. 363 (1999)). The majority relied on the study, and a concurring judge characterized the evidence as a "major study," which "encompassed a wide scale analysis of the effects of a diverse learning environment". *Grutter*, 288 F.3d at 759–60 (Clay, J., concurring). Thus, for some on the court, the empirical data was strong enough to proclaim the benefits of diversity as "statistically proven." *Id.* at 763 (Clay, J., concurring). The dissenters characterized the same "major study" relied upon by the majority as "questionable science." *Id.* at 803 (Boggs, J., dissenting). The dissent criticized the "profound empirical and methodological defects" of the study, including insufficient quantification of the claimed benefits of diversity and the "subjectivity" of the data, which was based on student self-reporting. *Id.* at 804 (Boggs, J., dissenting). The dissent went so far as to attack the study's regression analysis for failing to "examine the statistical link between having a *more diverse student body* and the benefits that it claims." *Id.* at 804 (Boggs, J., dissenting). As of this writing, social scientists continue to measure the benefits of diversity to the university environment. See Greg Winter, *Study Challenges Case for Diversity at Colleges*, N.Y. TIMES, March 20, 2003,

held, for example, that there must be a “*strong basis in evidence* for [the government’s] conclusion that remedial action was necessary.”²⁵³ In *City of Richmond v. J.A. Croson*,²⁵⁴ the Court dismissed as irrelevant data indicating the presence of general societal discrimination against minorities and concluded that the City had failed to identify specific instances of past or present racial discrimination in the local contracting industry.²⁵⁵

The Supreme Court has yet to apply the “strong basis in evidence” standard to any affirmative action program. But, lower courts have apparently taken the empirical hint. Although it recently made yet another appearance before the Court, *Adarand Constructors, Inc. v. Mineta*²⁵⁶ was disposed of on standing grounds, thus relieving the Court of the task of considering the detailed empirical record that had been compiled on remand.²⁵⁷ The Tenth Circuit, which did have occasion to apply the “strong basis” standard, interpreted *Croson* and *Adarand* as requiring a strong empirical demonstration.²⁵⁸ The court thus meticulously examined the evidence—*anecdotal, direct, circumstantial, pre-enactment, post-enactment*—as well as evidence of private and public discrimination, not only in the specific area of government procurement contracts, but in the construction industry generally.²⁵⁹ The court’s opinion rivals *McCleskey* in its comprehensive treatment of empirical data.

Adarand involved a Department of Transportation (“DOT”) program designed to provide highway subcontracts to disadvantaged

at A28 (describing study whose findings concerning the benefits of diversity conflicted with the Michigan study).

253. *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 500 (1989) (quoting *Wygant v. Jackson Bd. of Educ.*, 476 U.S. 267, 277 (1986)) (emphasis added).

254. 488 U.S. 469 (1989).

255. *See id.* at 498 (noting that general claims of discrimination in a particular industry provided “no guidance”). The Court did leave the empirical door slightly ajar, however, noting that the existence of a significant “statistical disparity” between the number of qualified minority contractors willing and able to perform the work and the number actually utilized could give rise to an inference of discriminatory exclusion. *Id.* at 509. On the record before it, the Court found it was clear that minority subcontractors had suffered discriminatory treatment, but that it was “sheer speculation” to guess at how many firms there might have been absent the discrimination. *Id.* at 499.

256. 534 U.S. 103, 105 (2001) (*per curiam*). The case was originally decided in 1995. *See Adarand Constructors, Inc. v. Peña*, 515 U.S. 200 (1995).

257. *Id.* at 107.

258. *See Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1166 (10th Cir. 2000) (noting that “[b]oth statistical and anecdotal evidence are appropriate in the strict scrutiny calculus, although anecdotal evidence by itself is not enough” (citing *Concrete Works of Colo., Inc., v. City & County of Denver*, 36 F.3d 1513, 1520–21 (10th Cir. 1994))).

259. *See id.* at 1167–1176 (citing studies, reports, and other evidence of discrimination in contracting industry).

business enterprises.²⁶⁰ Based on the data, the Tenth Circuit concluded that there was indeed a “strong basis” in evidence for Congress’s conclusion that there existed extensive public and private discrimination in the award of highway contracts under the DOT program and in the construction industry generally.²⁶¹ The court placed heavy reliance upon statistical and other social science data contained in a DOT federal register notice entitled *The Compelling Interest for Affirmative Action in Federal Procurement*²⁶² (“*The Compelling Interest*”), which was prepared in response to the Supreme Court’s first *Adarand* decision. The Tenth Circuit believed that it could not simply rely upon legislative history and statements by legislators concerning the effects of past and present discrimination.²⁶³ In light of *Adarand* and *Croson*, it was critical that empirical data be found to support the government’s assertion of a compelling interest.

In addition to a summary of the numerous congressional hearings on the subject, *The Compelling Interest* contains a summary of numerous outside studies containing statistical and anecdotal data regarding discrimination in federal procurement. Again and again, the court pointed to these studies and data to demonstrate that discrimination and minorities’ lack of success in the construction trades were causally related.²⁶⁴ In addition, following *Croson*, state and local governments conducted their own statistical studies to determine whether minority-owned businesses were under-utilized in government contracting.²⁶⁵ According to the government, those studies and others like them produced an aggregate thirteen percent disparity between minority enterprise availability and utilization.²⁶⁶ While conceding that the disparity was not overwhelming, the court deemed it constitutionally significant, especially when considered in light of the numerous other studies regarding under-utilization of minority enterprises.²⁶⁷

260. See *id.* at 1160–61 (describing program).

261. *Id.* at 1172.

262. 61 Fed. Reg. 26,050 (May 23, 1996).

263. *Adarand*, 228 F.3d at 1167 (stating that “[w]e cannot merely recite statements made by members of Congress alleging a finding of discriminatory effects and the need to address those effects”).

264. See *id.* at 1168 (noting barriers to minority business formation and exclusion from construction trades); see also *id.* at 1169 (discussing racism by trade unions); *id.* at 1170 (illustrating barriers to competition experienced by existing minority enterprises).

265. See *id.* at 1172–73.

266. See *id.* at 1174.

267. *Id.* Although a number of *amici curiae* urged the court to reject all of the disparity studies as biased and/or insufficiently reliable, the court refused to do so, noting that “the conclusions of virtually all social scientific studies may be cast into question by criticism of

The lesson of cases like *McCleskey* and *Adarand* is that both discrimination claimants and government officials will be held to a rigorous empirical standard with regard to race-based predicates. This may at first glance appear warranted, since strict judicial scrutiny applies to such claims. As in other contexts, however, the Court does not always translate strict scrutiny into heightened empiricism. It chooses, based on its own notions of novelty and plausibility, which purposes require an empirical showing. Thus, affirmative action in local contracting requires heightened empiricism, while affirmative action in universities does not.²⁶⁸ There is also the matter of the empirical burden itself. Claimants are subject to an impossible empirical standard insofar as they rely upon statistics to demonstrate purposeful discrimination; the notion that disparate impact is a proxy for purposeful discrimination appears inherently implausible to the Court. Similarly, the government, insofar as it wishes to use race as a factor in contracting and other benefits decisions, must come forward with a strong basis in evidence for doing so. The Tenth Circuit's empirical examination in *Adarand* foreshadows the empirical rigor that will apply to future affirmative efforts to take race into account.

C. *Implausible Governmental Predictions*

The foregoing legislative predicates represent only a portion of the Court's turn toward rigorous empirical analysis of legislative purposes. Even legislative predictions, such as those which routinely form the basis for proactive and prophylactic legislation, are now empirically tested. Legislative predictions have traditionally received substantial judicial deference, particularly where scientific or other technical data are in conflict.²⁶⁹ Today, by contrast, a novel or

their choice of assumptions and methodologies." *Id.* at 1173 n.14. General criticism of the studies, as opposed to specific evidence undermining their reliability, was not sufficient to sway the court. Other lower courts have also addressed the "strong basis" test empirically. In *Wittmer v. Peters*, 87 F.3d 916 (7th Cir. 1996), *cert. denied*, 519 U.S. 1111 (1997), for example, Chief Judge Posner allowed experts on behalf of the Illinois Department of Corrections to extrapolate from social scientific studies to demonstrate a compelling need for a limited racial preference in staffing a boot camp populated mostly by black inmates. *Id.* at 920. Judge Posner conceded that the social scientific literature relied upon by the experts did not focus specifically on boot camps. *Id.* at 920. He credited the studies nonetheless, stating: "If academic research is required to validate any departure from strict racial neutrality, social experimentation in the area of race will be impossible despite its urgency." *Id.*

268. See *supra* note 252 (discussing recent University of Michigan affirmative action cases).

269. Thus, for example, in *Jones v. United States*, 463 U.S. 354 (1983), Congress was not required to demonstrate the empirical validity of its prediction that an insanity acquittal

implausible governmental prediction that a harm will *eventually* come to pass is considered an appropriate subject for empirical analysis.

Empirical testing of governmental predictions originated in *Turner Broadcasting System, Inc. v. FCC* (“*Turner I*” and “*Turner II*”).²⁷⁰ In the *Turner* cases, the Court examined whether Congress had sufficient evidence to support its prediction that “must-carry” provisions of the Cable Television Consumer Protection and Competition Act of 1992²⁷¹ (“Cable Act”) imposed on cable operators were necessary to preserve local broadcasting.²⁷² The Cable Act was enacted after three years of hearings on the structure and operation of the cable television industry.²⁷³ Congress’s conclusions and detailed findings were set forth in the statute.²⁷⁴

Congress’s stated purposes in enacting the must-carry provisions were three-fold: (1) “preserving the benefits of free local broadcast television,” (2) “promoting the widespread dissemination of information from a multiplicity of sources,” and (3) “promoting fair competition in the market for television programming.”²⁷⁵ The Court had no trouble accepting that Congress’s asserted interests, based upon its market predictions, were important or substantial *in the abstract*.²⁷⁶ But in *Turner I*, a plurality of the Court would not simply accept Congress’s *prediction* that the must-carry rules would in fact advance any or all of the government’s stated interests.²⁷⁷ Rather, the

supported an inference of continuing mental illness, thus permitting continued confinement. *See id.* at 364 n.13 (declaring that “[w]e do not agree with the suggestion that Congress’s power to legislate in this area depends on the research conducted by the psychiatric community”).

270. *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622 (1994) [hereinafter *Turner I*]; *Turner Broad. Sys., Inc. v. FCC*, 520 U.S. 180 (1997). Except where the intent is to refer to one or the other of these opinions, they will hereinafter be referred to collectively as “*Turner*.”

271. Pub. L. No. 102-385, 106 Stat. 1460 (codified as amended at 47 U.S.C. § 609 (2000)).

272. *See* 47 U.S.C. §§ 534(b), (h) (describing must-carry rules).

273. *See Turner I*, 512 U.S. at 632.

274. *See id.* at 632–34 (summarizing detailed congressional findings). Congress found, *inter alia*, “that the physical characteristics of cable transmission, compounded by the increasing concentration of economic power in the cable industry, are endangering the ability of over-the-air broadcast television stations to compete for a viewing audience and thus for necessary operating revenues.” *Id.* at 632–33. The must carry provisions were intended to correct for this market imbalance and ensure that broadcast stations remained economically viable.

275. *Id.* at 662.

276. *See id.* at 662–63.

277. *See id.* at 664 (explaining that “[w]hen the Government defends a regulation on speech as a means to redress past harms or prevent anticipated harms, it must do more than simply ‘posit the existence of the disease sought to be cured’”) (quoting *Quincy*

plurality held that the government must “demonstrate that the recited harms are real, not merely conjectural, and that the regulation will in fact alleviate these harms in a direct and material way.”²⁷⁸ Thus, for the first time, the Court declared that legislative *predictions* must be supported by “substantial evidence.”²⁷⁹

The plurality in *Turner I* did not find substantial evidence to support Congress’s prediction in the voluminous testimony, statistics, and studies in the record.²⁸⁰ Without a more detailed elaboration of the “predictive or historical evidence upon which Congress relied, or the introduction of some additional evidence to establish that the dropped or repositioned broadcasters would be at serious risk of financial difficulty,” the Court asserted that it could not determine whether Congress targeted a “real” threat.²⁸¹

After a remand “to permit the parties to develop a more thorough factual record,”²⁸² the Court in *Turner II* indicated it was now convinced of the merit of Congress’s 1992 prediction.²⁸³ The

Cable TV, Inc., v. FCC, 768 F.2d 1434, 1455 (D.C. Cir. 1985)).

278. *Id.* The government argued that Congress’s finding that local broadcast television was in jeopardy was entitled to great deference, particularly given the highly technical interrelationship between two rapidly changing industries—cable and broadcast television. The Court agreed that it must “accord substantial deference to the predictive judgments of Congress.” *Id.* at 665. Institutional considerations, such as the perceived relative competency of Congress as a factfinder, led the Court to conclude that Congress was in a better position to make predictions concerning the continued survival of industries. *Id.* That Congress was perhaps the more competent predictor in this context was not a sufficient basis for judicial deference to its logic and findings, however, as the remainder of the plurality opinion demonstrated. The Court believed it was entitled to make an “‘independent judgment of the facts bearing on an issue of constitutional law.’” *Id.* at 666 (quoting *Sable Communications of Cal., Inc. v. FCC*, 492 U.S. 115, 129 (1989)). That independent judgment, while it did not include a license to reweigh legislative evidence *de novo*, served to ensure that Congress had drawn *reasonable inferences based on “substantial evidence.”* *Id.* (emphasis added).

279. *Id.* at 666 (asserting that a judicial role in cases implicating First Amendment rights is “to assure that in formulating its judgments, Congress has drawn reasonable inferences based on substantial evidence”).

280. *See id.* at 667 (concluding that “[w]ithout a more substantial elaboration in the District Court of the predictive or historical evidence upon which Congress relied, or the introduction of some additional evidence to establish that the dropped or repositioned broadcasters would be at serious risk of financial difficulty, we cannot determine whether the threat to broadcast television is real enough to overcome the challenge to the provisions made by these appellants”).

281. *Id.* at 667–68.

282. *Id.* at 668.

283. Eighteen months of additional factfinding followed the Court’s remand, “yielding a record of tens of thousands of pages” of evidence. *Turner Broad. Sys., Inc. v. FCC* 520 U.S. 180, 187 (1997) (quoting *Turner Broad. Sys., v. FCC*, 910 F. Supp. 734, 755 (D.C. Cir. 1995)). No longer “constrained by the state of the record,” *id.* at 195, which now included not only the materials gathered during Congress’s three years of pre-enactment hearings,

Turner cases thus culminate in a rather bizarre empirical conclusion. According to the Court, Congress's "supplemented" record supported its predictive judgment, originally made in 1992, that the must-carry provisions furthered important government interests and were adequately tailored.²⁸⁴ In effect, the Court held that the government had now proven, based on *subsequently developed* empirical evidence presented in court several years after the legislative prediction, that Congress had ample evidence, at the time of its prediction, to reasonably predict that harm would come to broadcast stations if cable was not restrained.²⁸⁵

The *Turner* cases, which some see as indicative of judicial deference to Congress,²⁸⁶ are actually anything but deferential. Insofar as the cases indicate that even legislative predictions are empirically testable, they place a swath of legislation in jeopardy. Congress often acts prophylactically, and it does not often have the sort of "substantial evidence" a court might require to support predictive enactments. Predictions are based upon legislative judgments and experience, and although empirical evidence can sometimes be found to support them, more often it will be the case that the legislature is acting in the face of an unknown, and perhaps empirically unknowable, harm or evil.

D. *Implausible Governmental Theories and Causal Claims*

Empiricism also now functions as a check on "novel" or "implausible" governmental theories and causal claims. Theories and causal claims are similar to predictions, in that they are based in part on judgments concerning how the world will appear at some point in the future. The theories and causal claims discussed here, however, are often merely extrapolations from prior governmental predictions and causal claims that seemingly gained judicial acceptance. In a break from past practice, the Court has empirically tested the "plausibility" of these governmental predicates as well.

but also "additional expert submissions, sworn declarations and testimony, and industry documents obtained on remand," *id.* at 187, the Court finally agreed that Congress had identified a "real" threat. *Id.* at 196.

284. *Id.* at 200.

285. Remarkably, at the same time, the Court disclaimed any intent to interfere with Congress's policy-making function: "We need not put our imprimatur on Congress's economic theory in order to validate the *reasonableness* of its judgment." *Id.* at 208 (emphasis added).

286. See, e.g., Stuart Minor Benjamin, *Proactive Legislation and the First Amendment*, 99 MICH. L. REV. 281, 302 (2000) (characterizing the *Turner* standard as deferential).

In *Bartnicki v. Vopper*,²⁸⁷ for example, the Court invalidated certain provisions of Title III of the Omnibus Crime Control and Safe Streets Act of 1968, as amended, the federal wiretapping statute, which created civil penalties for intentional disclosure of illegally intercepted wireless communications.²⁸⁸ Congress theorized that civil penalties for *future* disclosure of intercepted communications would deter *initial* interceptions by effectively “drying up the market” for the initial interceptions.²⁸⁹ The government, in defending the statute, contended that the identity of the interceptor was often unknown, and that only by deterrence of this nature would the government be able to serve its important interest in maintaining the privacy of innocent wireless communicators.²⁹⁰

The Court found this theory implausible. It expressly rejected the government’s “dry-up-the-market” theory on the ground that it lacked sufficient empirical support.²⁹¹ The Court noted, first, that there was scant evidence that the identity of the interceptors was unknown.²⁹² The Court also found “no empirical evidence to support the assumption that the prohibition against disclosures reduces the number of illegal interceptions.”²⁹³ The majority pointed to a “dearth of evidence in the legislative record” in support of the government’s theory, and it further noted that what little post-enactment evidence existed cut against that theory.²⁹⁴

More recently, in *Ashcroft v. Free Speech Coalition*,²⁹⁵ the Court rejected two separate governmental hypotheses on empirical grounds. Congress reasoned, in its findings supporting the Child Pornography Prevention Act of 1996²⁹⁶ (“CPPA”), that pedophiles might utilize

287. 532 U.S. 514 (2001).

288. See 18 U.S.C. §§ 2511(1)(c), (d) (1993).

289. *Bartnicki*, 532 U.S. at 531 n.17.

290. See *id.* at 529–31.

291. See *id.* at 531 n.17.

292. See *id.* at n.15 (noting that in only five of 206 cases was identity of interceptor wholly unknown).

293. *Id.* at 530–31.

294. *Id.* at 531 n.17. Although they appeared to be applying the *Turner* “substantiality” standard to the legislative judgment, the majority did not cite *Turner* or mention its newly announced standard. The Court did not explain why the dry-up-the-market theory, which forms the basis for a number of accepted legal proscriptions, including the Court’s own Fourth Amendment exclusionary rule, was deemed implausible under the circumstances. Indeed, the Court had previously accepted the same theory without any empirical demonstration of its accuracy. In *New York v. Ferber*, 458 U.S. 747, 760 (1982), the Court upheld a law prohibiting the distribution of child pornography based upon the same dry-up-the-market theory it rejected in *Bartnicki*.

295. 535 U.S. 234 (2002).

296. Pub. L. No. 104-208, § 121, 110 Stat. 3009-26 (codified as amended at 18 U.S.C.

virtual images of children engaged in sexual acts to entice children to participate in sexual activity and to whet their own sexual appetites.²⁹⁷ The Court first rejected the government's theory that "virtual" child pornography,²⁹⁸ like actual child pornography, may lead to sexual abuse of children. The Court found Congress's claimed causal link between virtual pornography and child abuse to be "contingent and indirect."²⁹⁹ The Court stated: "The harm does not necessarily follow from the speech, but depends upon some *unquantified* potential for subsequent criminal acts."³⁰⁰ The Court also rejected as "implausible" Congress's "hypothesis" that the market for virtual images and the market using actual children are sufficiently linked that virtual images must be prohibited to dry up the market for actual child pornography.³⁰¹ Given the result in *Bartnicki*, it is likely that the Court would have rejected the diminished market theory in any event. The Court simply circumvented the inquiry by finding no support for Congress's purported link between the two pornography markets.³⁰²

§ 2251 (2000)).

297. See *Ashcroft*, 535 U.S. at 241–45 (discussing congressional findings).

298. "Virtual" in the sense that sexually explicit images appear to depict minors but were produced without any real children. See *id.* at 241.

299. *Id.* at 250.

300. *Id.* (emphasis added); see also *id.* at 253–54 (concluding that "[w]ithout a significantly stronger, more direct connection, the Government may not prohibit speech on the ground that it may encourage pedophiles to engage in illegal conduct").

301. *Id.* at 254.

302. Even causal links which have been accepted in the past are subject to rigorous empirical examination. In *Lorillard Tobacco Co. v. Reilly*, 533 U.S. 525 (2001), for example, the Court found sufficient empirical support for the government's theory that product advertising stimulates demand for products, and that suppressing advertising has the opposite effect. In *Lorillard*, Massachusetts had imposed various restrictions on the sale, promotion, and labeling of cigarettes, smokeless tobacco, and cigars. See *id.* at 532. The advertising-consumption link was hardly novel; indeed, it had been accepted in prior cases. See, e.g., *United States v. Edge Broad. Co.*, 509 U.S. 418, 434 (1993) (citing "immediate connection between advertising and demand" in upholding ban on radio advertising of state lottery near state border). The Court nonetheless reviewed the empirical evidence carefully. The Court pointed to an array of data relied upon by the Massachusetts Attorney General, including several studies cited by the Food and Drug Administration in its proceedings regarding regulation of tobacco, which demonstrated a link between product advertisement and consumption of cigarettes and smokeless tobacco products. See *Lorillard*, 533 U.S. at 557–61 (citing FDA proposed and final rules, data from surgeon general reports and National Cancer Institute, and other studies, including Pierce et al., TOBACCO INDUSTRY PROMOTION OF CIGARETTES AND ADOLESCENT SMOKING, 279 JAMA 511, 514 (1998)). With regard, specifically, to cigars, the Court noted that data which had recently emerged in the form of a National Cancer Institute Monograph indicated that "the rate of cigar use by minors is increasing" and that other "[s]tudies had also demonstrated a link between advertising and demand for cigars." *Id.* at 560–61. Also at issue in *Lorillard* was a ban on advertising of tobacco products within

In sum, like legislative predictions, legislative theories and causal claims have also come under heightened empirical examination. Theories like market diminution, which have been accepted without empirical support in the past, have been treated as implausible, judicially tested, and found wanting. Causal claims which would be difficult, at best, to empirically demonstrate have been rejected for lack of empirical support. The clear trend is to treat legislative predicates as empirically falsifiable propositions.

E. Empirical Proxies

The judicial penchant for turning constitutional inquiries into empirical propositions extends beyond the measurement of legislative interests, purposes, predictions, theories, and causal claims. More and more, the Supreme Court and other courts have been turning to formulas, ratios, equations, and other scientific conventions to map the contours of constitutional rights. This Section describes four constitutional constructs for which empirical proxies have recently been crafted or suggested: “cruel and unusual punishments” under the Eighth Amendment; sectarian “coercion” under the Establishment Clause; symbolic “establishment” of religion under the Establishment Clause; and “due process” as it relates to the imposition of both criminal and civil penalties.

1. Measuring Evolving Societal Standards

The Eighth Amendment prohibits the infliction of “cruel and unusual punishments.”³⁰³ The Supreme Court has struggled to develop a method for identifying punishments that fall within this normative prohibition. History has been one guide. Thus, at least those punishments considered cruel and unusual at the time the Bill

1,000 feet of any school. The majority found the 1,000-foot rule to be insufficiently tailored. *See id.* at 561–66. Justice Stevens, however, would have remanded on this issue, finding the “dearth of reliable statistical information as to the scope of the ban . . . problematic.” *Id.* at 602 (Stevens, J., concurring in part, concurring in the judgment in part, and dissenting in part). He noted that the parties were in dispute as to the percentage of urban areas affected by the ban. Finally, Justice Stevens was troubled by the lack of information as to alternative avenues of communication left open to the tobacco companies. He concluded that “depending on the answers to empirical questions on which we lack data, the ubiquity of print advertisements hawking particular brands of cigarettes might suffice to inform adult consumers of the special advantages of the respective brands.” *Id.* (Stevens, J., concurring in part, concurring in the judgment in part, and dissenting in part).

303. “Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.” U.S. CONST. amend. VIII.

of Rights was adopted would appear to be proscribed.³⁰⁴ Beyond these few punishments, however, the parameters of the Eighth Amendment's prohibition on cruel and unusual punishment remain highly uncertain.

So far the best the Court has managed, in terms of guidance, is to recognize that the "evolving standards of decency that mark the progress of a maturing society" should be considered in determining which punishments are prohibited.³⁰⁵ A socially insular Court, particularly one concerned with its own legitimacy, can scarcely afford to rely on its own perceptions of "evolving" moral, political, and societal attitudes. Naturally, then, the Court is in need of some outside measures by which the mores of a "maturing" society might be identified.³⁰⁶ Indeed, the Court, recognizing its constitutional position, has noted that evolving standards should be determined by reference to "objective factors to the maximum possible extent."³⁰⁷

What kind of objective factors? With regard to the Eighth Amendment, the Court has reasoned that the "clearest and most reliable objective evidence of contemporary values is the legislation enacted by the country's legislatures."³⁰⁸ Thus, if, in the Court's view, there exists a "national consensus" against a certain punishment, as represented by existing state legislation, then the punishment would perforce be prohibited under the Eighth Amendment.³⁰⁹ Legislative outputs, then, are the principal objective measure of evolving mores.³¹⁰

To see how this objective approach to evolving mores works, consider the Court's recent line-drawing with respect to the execution of the mentally retarded. In *Penry v. Lynaugh*,³¹¹ the Supreme Court

304. See *Ford v. Wainwright*, 477 U.S. 399, 405 (1986).

305. *Trop v. Dulles*, 356 U.S. 86, 101 (1958) (plurality opinion).

306. See *Edmund v. Florida*, 458 U.S. 782, 788–96 (1982); *Coker v. Georgia*, 433 U.S. 584, 593–97 (1977).

307. *Rummel v. Estelle*, 445 U.S. 263, 274–75 (1980) (quoting *Coker*, 433 U.S. at 592); see also *Harmelin v. Michigan*, 501 U.S. 957, 1000 (1991) (stating that the type of punishment imposed is "the most prominent objective factor" in determining the constitutionality of sentence of life without parole for drug possession convictions).

308. *Penry v. Lynaugh*, 492 U.S. 302, 331 (1989).

309. *Id.* at 334.

310. If available, the Court has indicated that it will also examine data concerning the actions of sentencing juries to determine whether a punishment, in the eyes of contemporary Americans, is cruel and unusual. *Id.* at 331; see *Coker*, 433 U.S. at 596–97 (1977) (crediting data showing nine out of ten juries in Georgia did not impose death sentence for rape).

311. 492 U.S. 302 (1989).

held that the Eighth Amendment did not prohibit such executions.³¹² In 1989, when *Penry* was decided, the Court counted only one federal and one state statute that prohibited execution of the mentally retarded.³¹³ Even generously adding the fourteen states which, at the time, prohibited *all* capital punishment, the Court did not believe the requisite national “consensus” could be found to exist.³¹⁴

Thirteen years later, however, the Court re-examined the data and concluded that the requisite quantity of outputs had been reached. Thus, in *Atkins v. Virginia*,³¹⁵ the Court drew precisely the line it refused to draw in *Penry*, holding that the execution of the mentally retarded, regardless of circumstance, violated the Eighth Amendment.³¹⁶ As of June 2002, when *Atkins* was decided, eighteen states had passed laws expressly prohibiting the execution of the mentally retarded in certain circumstances.³¹⁷ According to the Court, however, “[i]t is not so much the number of these States that is significant, but the consistency of the *direction* of change.”³¹⁸ Relying, in part, on the “well-known fact” that “anticrime legislation is far more popular than legislation providing protections for persons guilty of violent crime,” the direction of change convinced a majority of the Court that societal opinion had changed dramatically since *Penry*.³¹⁹ As additional support, the Court cited the aggregate *number* of legislators who “overwhelmingly” voted to prohibit execution of the mentally retarded.³²⁰ Finally, the Court noted other external evidence of evolving mores, including polling data, which had been expressly rejected in *Penry*, and the assorted views of organizations like the American Psychological Association, diverse religious groups, and the European Union.³²¹

312. *See id.* at 335.

313. *See id.* at 334 (citing federal Anti-Drug Abuse Act of 1998 and Georgia statute).

314. There was other evidence available, such as data from several opinion polls which indicated an overwhelming opposition among the American people to the practice of executing mentally retarded defendants. *See id.* at 334–35. But the Court rejected this data outright as lacking sufficient objectivity. *Id.* at 335. Without a sufficient number of outputs, the *Penry* Court refused to adopt mental age “as a line-drawing principle in our Eighth Amendment jurisprudence.” *Id.* at 340.

315. 536 U.S. 304 (2002).

316. *See id.* at 321.

317. *See id.* at 313–15 (discussing legislative activity since *Penry*).

318. *Id.* at 315 (emphasis added).

319. *Id.*

320. *Id.* at 316.

321. *See id.* at 316 n.21. Finding a national consensus is only the first step. According to the Court, its review function is to determine whether there are reasons to agree or disagree with the consensus that has formed. *See id.* at 312–13. Exercising this judgment in *Atkins*, the Court first noted the existence of evidence concerning certain deficiencies of

The dissenters responded with withering criticism of the majority's empirical analysis. They objected to the empirical sources relied upon by the majority, specifically opinion polls and foreign laws.³²² More than this, however, there was a dispute as to the majority's basic math. Justice Scalia was particularly incredulous that agreement among only forty-seven percent of the death penalty jurisdictions (eighteen states) could amount to a "national consensus" under the Eighth Amendment.³²³ He was also critical of the majority's reliance on a legislative "trend" of tender years.³²⁴ Finally, Justice Scalia mocked the majority's reliance on the number of legislators who voted in favor of legislation. Why not, he asked, collect data concerning the *populations* served by those representatives voting in favor of and against death eligibility for the mentally retarded?³²⁵

The need for objectivity is perhaps nowhere greater than when broad, normative constitutional prohibitions like that against "cruel and unusual punishments" are at stake. Legislative outputs can, in the Court's defense, be readily accounted for and tallied. But *Atkins* raises the question whether such simple empiricism provides an objective basis for such difficult constitutional choices. Despite the

the mentally retarded in terms of their capacity to process information and control their impulses. *See id.* at 318–19 & nn.23–24 (citing studies). In light of the medical and psychological data concerning the capabilities of the mentally retarded to appreciate the wrongfulness of their conduct, the Court determined that their execution would not further the principal justifications for imposing the death penalty—retribution and deterrence. *See id.* at 319–20. Thus, based on its "independent evaluation" of the matter, the Court found no reason to disagree with the previously identified national consensus against execution of mentally retarded defendants. *Id.* at 321.

322. Chief Justice Rehnquist specifically criticized the majority's reliance on the views of religious organizations, foreign laws, and polling data. *See id.* at 325–26 (Rehnquist, C.J., dissenting). With respect to the opinion polls cited by the majority, the Chief Justice noted that the Court lacked "sufficient information to conclude that the surveys were conducted in accordance with generally accepted scientific principles or are capable of supporting valid empirical inferences about the issue before us." *Id.* at 322. The Chief Justice noted the many possible methodological errors that could affect the quality of polling data. *See id.* He collected and analyzed the various polls relied upon by the majority in an Appendix to his opinion. *See id.* at 328–37. He also highlighted the absence of "comprehensive statistics that would conclusively prove (or disprove) whether juries routinely consider death a disproportionate punishment for mentally retarded offenders like petitioner." *Id.* at 324.

323. *See id.* at 342 (Scalia, J., dissenting). Justice Scalia noted, "[t]he Court . . . miraculously extracts a 'national consensus' forbidding execution of the mentally retarded". *Id.* at 316. Justice Scalia did not even concede that the eighteen states the majority counted had been counted properly; some of them, he pointed out, did not prohibit all executions of mentally retarded defendants. *See id.*

324. *See id.* at 344 (Scalia, J., dissenting) (noting that legislation is "still in its infancy").

325. *See id.* at 346 (Scalia, J., dissenting).

majority's attempt to rest its decision on an objective, empirical basis, Justice Scalia proclaimed in dissent: "Seldom has an opinion of this Court rested so obviously upon nothing but the personal views of its Members."³²⁶

2. The Establishment Equation and Religious Symbolism

The First Amendment's Establishment Clause is another open-ended constitutional provision that has historically caused interpretive problems.³²⁷ The clause itself provides no guidance as to how to mediate the tension between a religious people and a government which should remain, insofar as possible, free from sectarian influence. As with the Eighth Amendment's prohibition on "cruel and unusual punishments," the Rehnquist Court has sometimes sought to operationalize the establishment prohibition by quantifying it.

In *Zelman v. Simmons-Harris*,³²⁸ for example, the Court narrowly upheld an Ohio funding program that offered public aid recipients the option of using those funds at private, sectarian schools.³²⁹ Prior to *Zelman*, the Court generally declined to invalidate programs that did not facially discriminate in favor of or against religion, and that left the choices of where to apply the funds to individual recipients.³³⁰ This was so even where the overwhelming majority of fund recipients

326. *Id.* at 338 (Scalia, J., dissenting).

327. U.S. CONST., amend. I ("Congress shall make no law respecting an establishment of religion . . .").

328. 536 U.S. 639 (2002).

329. *See id.* at 653. In the "public voucher" context, as in other Establishment Clause contexts, the question is whether the program is "neutral" with respect to religion, which is determined by asking whether the aid has the "purpose" or "effect" of advancing or inhibiting religion. *See, e.g.,* *Agostini v. Felton*, 521 U.S. 203, 222–23 (1997) (discussing neutrality requirement). *Zelman* brought into conflict two lines of authority. When aid is provided directly to religious institutions, the Court has been vigilant in determining whether the legislature acted with a forbidden purpose of coercing religious school attendance, or furthered that prohibited effect. *See Rosenberger v. Rector and Visitors of Univ. of Va.*, 515 U.S. 819, 842 (1995) (collecting cases). Where, however, the aid at issue reaches religious schools as a result of choices made by parents to send their children to those schools, the Court has been somewhat more flexible in its review. *See Mueller v. Allen*, 463 U.S. 388, 399 (1983) (upholding Minnesota program authorizing tax deductions for various educational expenses, including private school tuition); *see also* *Witters v. Washington Dep't of Serv. for the Blind*, 474 U.S. 481, 487 (1986) (upholding neutral state-funded vocational rehabilitation program that provided aid to student studying to be a pastor); *Zobrest v. Catalina Foothills Sch. Dist.*, 509 U.S. 1, 8 (1993) (upholding federal aid program that permitted sign language interpreters to assist children in religious schools).

330. *See, e.g., Mueller*, 463 U.S. at 397 (upholding program even though ninety-six percent of beneficiaries were parents whose children attended religious schools).

chose to apply the aid at sectarian institutions.³³¹ But in *Zelman*, the debate among the Court's members centered expressly on the proper equation with which to examine the coercive effect of the Ohio voucher program. "Coercion" thus became an empirical convention.

In *Zelman*, it was undisputed that eighty-two percent of the participating private schools in the Ohio voucher program were sectarian, and that ninety-six percent of the scholarship recipients enrolled in religious schools.³³² Because these numbers were so one-sided, the majority was not in any position to simply ignore this facially compelling data. For this reason, the justices in *Zelman* haggled mostly over the proper formulation of the "Establishment Equation"—the proportion of sectarian aid recipients to the total number of aid recipients, or the total aid distributed to sectarian recipients versus the total aid available.³³³

The *Zelman* majority insisted that the dissenters, who relied upon the ninety-six percent figure, skewed the Establishment Equation's denominator by failing to count the thousands of children who enrolled in alternative community schools, magnet schools, and traditional public schools, where some students received tutorial assistance under the program.³³⁴ Adding these recipients to the Establishment Equation's denominator resulted, by the majority's calculation, in a reduction of the percentage enrolled in religious schools from ninety-six percent to just under twenty percent.³³⁵

In a concurrence, Justice O'Connor, an influential voice with respect to the Establishment Clause, sought to buttress the majority's empirical position. Justice O'Connor constructed an Establishment Equation of her own, based, however, on more universal data sets. She noted that the *aggregate* amount of funding ultimately directed to sectarian schools under the program was quite small (some \$8.2 million) in relation to the total amount of funding disbursed by the State, and in relation to the numerous and substantial funding benefits conferred on religious institutions by federal, state, and local governments.³³⁶

331. *Id.*

332. *Zelman*, 536 U.S. at 647.

333. *See id.* at 658–59.

334. *See id.*

335. *See id.* at 659. As the majority pointed out, however, these figures represented only a snapshot in time. The data indicated that the numbers were subject to fluctuations from year to year. *See id.*

336. Justice O'Connor noted that although just over one-half as many students attended community schools as religious schools, the State spent more than \$1 million more on community school students. *See id.* at 664 (O'Connor, J., concurring). In

Finally, Justice Souter and the other dissenters argued that it was the *majority* which had skewed the denominator of the Establishment Equation by adding all schools that might be attended, not just those that are within the funding program at issue.³³⁷ Why, the dissenters asked, if not for the skewed nature of the program, is the overwhelming amount of funding being directed toward religious schools?³³⁸ Recast in empirical terms, what variables might explain the resulting distribution of funds, in which over ninety-six percent of recipients attend religious schools? The notion that parent preference explained the disparity was rejected as lacking support in the data.³³⁹ Inferentially, the dissenters also noted that the \$2,500 cap the program placed on tuition was more than \$1,000 less than the tuition for non-religious schools, but far higher than the average tuition at religious schools.³⁴⁰ Thus, according to the equation and the data, parents looking at the cap apparently had only one “true” choice; they were unconstitutionally coerced to participate.

This temptation to measure and empiricize is apparent in other Establishment Clause contexts as well. Whether, and under what circumstances, to permit the display of religious symbols on public property have been nearly intractable problems under the Establishment Clause. In *County of Allegheny v. American Civil Liberties Union*,³⁴¹ for example, the Court invalidated the display of a stand-alone crèche in a county courthouse, while upholding a display

addition, the State spent \$114.8 million on students attending magnet schools. *See id.* Justice O'Connor cited an array of data concerning other aid to religious institutions, including data on state tax exemptions, Medicare and Medicaid funding, Pell grants, and other aspects of the broad social welfare system. *See id.* at 665–68. Although she felt free to rely upon funding data well beyond the scope of the Ohio program, Justice O'Connor did not believe that national statistics regarding the cost advantages of a Catholic education, cited by Justice Souter in his dissent, were at all relevant to the Court's neutrality inquiry. *See id.* at 671. Ultimately, she went on to criticize Justice Souter, who sought to debunk the argument that the non-religious options the majority said were available were viable alternatives, for “rel[ying] on very narrow data to draw rather broad conclusions.” *Id.* at 675.

337. *See id.* at 699 (Souter, J. dissenting) (determining that “[w]hen the choice test is transformed from where to spend the money to where to go to school, it is cut loose from its very purpose”).

338. *See id.* at 697–98 (Souter, J., dissenting).

339. *See id.* at 704 (Souter, J., dissenting) (noting evidence that two out of three families using vouchers to send children to religious schools did not embrace the religion of the schools). *See also id.* at 704 n.12 (Souter, J., dissenting) (citing parental surveys in which parents overwhelmingly cited educational and safety benefits, not religious indoctrination, as motives for enrollment in religious schools).

340. *See id.* at 705 (Souter, J., dissenting).

341. 492 U.S. 573 (1989).

featuring a menorah and a 45-foot Christmas tree.³⁴² The majority relied mainly on Justice O'Connor's formulation of the endorsement test, which asks whether the display sends a forbidden message to insiders of favor, or to outsiders of disfavor, of religious beliefs.³⁴³

The endorsement test does not have universal support on the Court. In *Allegheny County*, Justice Kennedy argued that the test led the Court to decide cases based on "marginalia," "using little more than intuition and a tape measure" to create a "jurisprudence of minutiae."³⁴⁴ He proposed an alternative approach, which would focus on whether the display constituted an effort to proselytize or was "otherwise the first step down the road to an establishment of religion."³⁴⁵ This determination could only be made by determining, among other things, how long the display had appeared, the number of other symbols displayed with the crèche, and whether other religious symbols had been similarly acknowledged.³⁴⁶

In other words, Justice Kennedy was proposing a *formula* for deciding whether establishment of religion had occurred.³⁴⁷ As the majority interpreted the proposed proselytization test:

[O]ne could say that his methodology requires counting the number of days during which the government displays Christian symbols and subtracting from this the number of days during which non-Christian symbols are displayed, divided by the number of different non-Christian religions represented in these displays, and then somehow factoring into this equation the prominence of the display's location and the degree to which each symbol possesses an inherently proselytizing quality.³⁴⁸

Despite the formula's objective appearance, the majority contended that Justice Kennedy's approach was no more likely than the endorsement test to lead to determinate and predictable results.³⁴⁹

342. *See id.* at 602.

343. *See Lynch v. Donnelly*, 465 U.S. 668, 688–89 (1984) (O'Connor, J., concurring), *reh'g denied*, 466 U.S. 994 (1984).

344. *Allegheny County*, 492 U.S. at 676 (Kennedy, J., dissenting).

345. *Id.* at 664 (Kennedy, J., dissenting).

346. *Id.* at 664 n.3 (Kennedy, J., dissenting).

347. Academics, too, have made proposals to operationalize the Establishment Clause inquiry as it relates to the display of religious symbols. *See, e.g.*, Shari Diamond Seidman & Andrew Koppelman, *Measured Endorsement*, 60 MD. L. REV. 713, 715–16 (2001) (arguing that courts should take polling data into account in determining whether an impermissible message of endorsement has been conveyed).

348. *Allegheny County*, 492 U.S. at 607.

349. How, they asked, would the formula resolve whether, for example, the Establishment Clause would be violated if a city "each year displayed a crèche for 40 days

The proselytization test has never commanded the support of a majority of the Court.

In sum, once again in the face of an ambiguous constitutional command, the modern judicial inclination is to reach for an empirical solution. Prohibited “establishments” are not self-defining; courts must interpret the Constitution’s commands, draw lines, and flesh out ideals. This can be uncomfortable ground, filled with indeterminacy. Equations and formulas are relied upon to diminish the discomfort, and to bring objectivity to constitutional interpretation.

3. Punishment and Due Process

It is a matter of fundamental fairness that defendants should be extended every safeguard before a punishment is enforced against them. There are numerous procedural safeguards designed to ensure that this fairness principle is respected. In addition, the guarantee of due process contains some substantive constraints on punishments.

Under the Due Process Clause, *substantive* protection against unfair punishment has been far greater with regard to civil penalties, such as large punitive damage awards, than with regard to massive criminal fines and lengthy confinements, such as under recent “three strikes” provisions.³⁵⁰ Indeed, the Court has been particularly vigilant when it comes to the supposed limits the due process guarantee places on civil monetary penalties.

Most recently, in *State Farm Mutual Automobile Insurance Company v. Campbell*,³⁵¹ the Court held that a punitive damages award of \$145 million, where compensatory damages of \$1 million had been awarded by the jury, violated the Due Process Clause.³⁵² In *BMW of North America, Inc. v. Gore*,³⁵³ the Court instructed courts reviewing punitive damages awards to consider three guideposts: (1) the “degree of reprehensibility” of the defendant’s misconduct; (2) the disparity between the actual or potential harm suffered by the plaintiff and the punitive damages award; and (3) the difference between the punitive damages awarded by the jury and the civil

during the Christmas season and a cross for 40 days during Lent (and never the symbols of other religions?)”? *Id.* “[W]hat if there were no cross but the 40-day crèche display contained a sign exhorting the city’s citizens ‘to offer up their devotion to God their Creator, and his Son Jesus Christ, the Redeemer of the world?’ ” *Id.* (citation omitted).

350. See *Ewing v. California*, 123 S. Ct. 1179, 1189 (2003) (upholding California’s “three strikes” law).

351. 123 S. Ct. 1513 (2003).

352. See *id.* at 1515.

353. 517 U.S. 559 (1996).

penalties authorized or imposed in comparable cases.³⁵⁴ The *State Farm* Court held that the \$145 million award was “neither close nor difficult under these principles.”³⁵⁵

At what *numerical* point does the disparity between compensatory and punitive damages become constitutionally invalid? Noting that it had been reluctant in previous cases to rely on any mathematical formula, and disavowing any attempt to lay down a “bright-line ratio,”³⁵⁶ the Court nonetheless set down what by all appearances are mathematical ceilings for punitive awards. The Court stated that “few awards exceeding a single digit ratio between punitive and compensatory damages . . . will satisfy due process.”³⁵⁷ In addition, the Court noted: “When compensatory damages are substantial, then a lesser ratio, perhaps only equal to compensatory damages, can reach the outermost limit of the due process guarantee.”³⁵⁸ Thus, the *Gore* “disparity” factor was empiricized in *State Farm*.

As lower courts proceed to measure the “due process” meted out by juries, they will presumably consult a simple equation: $DP = P/C$, where DP is the guarantee of due process, P is the punitive damages award, and C is the compensatory damages award. After *State Farm*, there appears to be a presumptive 9:1 ceiling on punitive awards. Perhaps even more significantly, where compensatory damages are “substantial,” a 1:1 ratio may mark the outer bounds of the due process guarantee.

Lower courts have already begun to empiricize the *procedural* protections due process affords. Of course, fundamentally, no defendant can receive due process unless he remains alive to see the process through to completion. In *United States v. Quinones*, discussed earlier as an example of the courts’ foundational use of empirical data,³⁵⁹ the district court ventured further and held that publicly reported evidence that twelve “false positives” had resulted from state death penalty proceedings, along with social scientific studies indicating numerous errors in the death penalty process, established conclusively that the federal death penalty could not be administered in a manner which guaranteed “due process.”³⁶⁰ In bold

354. *Id.* at 575.

355. *State Farm*, 123 S. Ct. at 1521.

356. *Id.* at 1524.

357. *Id.*

358. *Id.*

359. See *supra* notes 151–56 and accompanying text.

360. See *United States v. Quinones*, 205 F. Supp. 2d 256, 264–68 (S.D.N.Y. 2002), *rev’d*,

empirical terms, the district court claimed to falsify the Supreme Court's hypothesis in *Herrera* that the death penalty was not being administered such that innocent persons were being put to death was valid. The Second Circuit ultimately reversed; it disagreed that the due process issue could be empirically settled.³⁶¹

So there have been, thus far, two attempts to operationalize "due process," one which marks empirical constitutional ceilings for civil fines, and the other which relies upon hypothesis testing and proof of "false positives." The question, of course, is whether these and other empirical standards will lead to a more objective and neutral interpretation of constitutional guarantees.

III. QUASI-NEUTRALITY AND THE NEW FORMALISM

Thus far, this Article has demonstrated a second judicial empirical turn across a range of constitutional text and in an array of disparate contexts. As the brief jurisprudential summary in Part I demonstrated, the search for objectivity and determinacy in law has been thoroughgoing. As with law generally, constitutional law eventually came to turn outward, adopting the scientific calculus of constitutional balancing. Constitutional empiricism is, in part, an extension of the balancing construct, an effort to measure state interests prior to placing them on the scale. This is manifested in the empirical testing of legislative predicates-suspected harms, predictions, theories, and causal claims. Beyond balancing, the courts, in the same search for objectivity and determinacy, have increasingly turned to calculation, falsification, formulas, equations, and ratios in an effort to interpret the meaning of various constitutional guarantees.

In light of the breadth and significance of the empirical forms and functions, it would underestimate the empirical turn to

313 F.3d 49 (2002). According to the district court, this empirical evidence indicated that a "meaningful number of innocent persons, by being put to death before the emergence of techniques or evidence that will establish their innocence, are thereby effectively deprived of the opportunity to prove their innocence." *Id.* at 264-65.

361. The Second Circuit held that *Herrera* itself precluded the lower courts "from finding capital punishment unconstitutional based solely on a statistical or theoretical possibility that a defendant might be innocent." *United States v. Quinones*, 313 F.3d 49, 68 (2d Cir. 2002), *reh'g denied*, 317 F.3d 86 (2003). The court reasoned that the anti-death penalty argument that innocent persons could be sentenced to death was not new, that Congress legislated with knowledge that false positives were possible, and that, in any event, the Supreme Court had rejected the empirical argument put forward as constitutionally insignificant. *See id.* at 63-65. The district court was apparently out ahead of the empirical curve.

characterize it merely as one of increased judicial attention to constitutional “factfinding” in discrete instances. Indeed, constitutional empiricism further exposes the purported distinction between “fact” and “law” as a “shibboleth.”³⁶² To a degree, empiricism is how courts are presently *making* constitutional law. It is a method of constitutional interpretation. This Part seeks answers to two questions: first, do the precepts of empiricism as it has developed so far provide the long-sought neutral grounding for constitutional law; and second, if empiricism does not supply long-sought neutral principles, what work does this interpretive method actually do?

A. *Quasi-neutral Principles and the Empirical Black Box*

Scholars like Herbert Wechsler were critical of *Brown* in light of the paucity of reasons the Court provided for its conclusion that separate education was inherently unequal.³⁶³ Wechsler argued that the Court could not act as a “naked power organ,” but had to support its decisions with reference to neutral principles, “reasons that in their generality and their neutrality transcend any immediate result that is involved.”³⁶⁴ According to Wechsler and others, the social scientific data the Court alluded to in *Brown* did not provide such neutral principles.³⁶⁵ *Roe*, the Court’s other infamous empiricist decision, has been subjected to similar criticisms.³⁶⁶ Beyond these individual empirical stand-outs, the balancing calculus, which was originally conceived as one process-oriented path to neutrality, has come under sharp and sustained criticism for its methodological and substantive indeterminacy.³⁶⁷

It has been more than half a century since the initial empirical turn in *Brown*, and the corresponding initial empirical backlash. In the interim, science and law have intersected to such an extent that judicial resistance to empirical conventions and precepts appears to have substantially faded, if not disappeared altogether. The general perception that science has “all the power, all the knowledge, all the

362. See Devins, *supra* note 179, at 1170 (2001) (suggesting that “the law-fact divide is a shibboleth, something that the Court invokes to justify a conclusion about whether it or Congress should settle an issue, not something with independent analytical force”); see also *id.* at 1172–77 (exploring debate on the law-fact distinction).

363. See Wechsler, *supra* note 112, at 32–33.

364. *Id.* at 19.

365. See *supra* note 116.

366. See FELDMAN *supra* note 27, at 148 (noting criticism of *Roe*’s methodology).

367. See generally Aleinikoff, *supra* note 20 (providing thorough critique of constitutional balancing).

rationality . . . all . . . plausibility or legitimacy”³⁶⁸ is as strong in constitutional law as it is in other areas, legal and non-legal alike. So, we might ask, why not enlist the methods and principles of scientific and empirical inquiry to do the work neutral principles are supposed to do? If courts must give reasons for their decisions or draw constitutional lines, perhaps they should express those reasons and lines in empirical terms—in numbers, charts, appendices, equations, formulas, ratios, and graphs—rather than solely by reference to precedent, history, text, structure, or other often indeterminate tools of constitutional construction. Perhaps courts could enlist empiricism’s apparent objectivity and neutrality in solving adjudicative and interpretive dilemmas.

1. An Epistemological View of Empiricism

Whether this can, or should, be the judicial course depends to a large extent on the judiciary’s epistemological view of empirical and scientific methods and principles. Is science essentially positivist and value-free, revealing empirically determinate facts?³⁶⁹ Is it possible, as positivists believe, to find an objective truth in the empirical “facts” of the matter? If so, a naturalist turn in constitutional law might present a plausible path to interpretive objectivity. Or, as Thomas Kuhn and others have claimed, is science interest- and culture-bounded, an intrinsically imperfect endeavor revealing only *socially constructed* facts?³⁷⁰ Is empirical data, as interpretivists insist, inseparable from the biases and paradigms of its observers?³⁷¹ Constitutional empiricism, with its emphasis on the proof of “real” predicates and its reliance on mathematical functions, directly implicates this long-standing debate.

Constitutional empiricism originated roughly at the same time the Rehnquist Court, in *Daubert* and its progeny, was converting

368. MICHEL SERRES & BRUNO LATOUR, CONVERSATIONS ON SCIENCE, CULTURE, AND TIME 87 (1995).

369. See generally PAUL GROSS & NORMAN LEVITT, HIGHER SUPERSTITION: THE ACADEMIC LEFT AND ITS QUARRELS WITH SCIENCE (1994) (discussing the concept of socially constructed scientific findings and data).

370. See KUHN, *supra* note 135, at 17–20.; JONATHAN POTTER, REPRESENTING REALITY: DISCOURSE, RHETORIC, AND SOCIAL CONSTRUCTION 34–35 (1996). For a discussion of this issue, see generally IAN HACKING, REPRESENTING AND INTERVENING (1983).

371. See generally JAMES BOHMAN, NEW PHILOSOPHY OF SOCIAL SCIENCE (1991) (discussing the recent treatment of the debate concerning the objectivity of the social sciences). For a description of the “empirical turn” in the philosophy of science, see Charles Taylor, *Interpretation and the Sciences of Man*, in COLLECTED PAPERS, vol. 2, 15, 15–57 (1985).

federal trial courts from passive recipients of scientific and technical data into engaged empirical gatekeepers. In 1993, the Court was taking its first institutional stand on the scientific method and, indirectly and perhaps unintentionally, joining the debate between scientific positivists and their constructivist opponents. Thus, fortunately, we have a more or less contemporaneous indication as to the Supreme Court's epistemological view of empiricism in its statements and the ultimate approach it adopted in *Daubert*. *Daubert* provides some critical insight into the empirical turn in constitutional cases.³⁷²

Although commentators have advanced both positivist and constructivist interpretations of *Daubert*,³⁷³ the weight of the opinion itself comes down to a rather naive positivism. First and foremost, the Court was of the view that the concept of science was intrinsically bound up with empirical testing.³⁷⁴ In addition to falsification by empirical testing, the Court emphasized such positivist stalwarts as peer review, publication, and rate of error, all core aspects of an empirical and positive scientific methodology.³⁷⁵ What is missing from the *Daubert* discussion and core framework is any mention or recognition of culture, institutions, politics, or other widely recognized mediating factors which complicate claims of scientific objectivity and universality.³⁷⁶ *Daubert's* conception of science is essentially "Popperian"—a linear view of the scientific project which vests judicial faith in empirical testing as the principal means to verifiable "truths."³⁷⁷

372. Some had predicted that as a result of *Daubert*, "a number of common practices of science will become common practices of law, erasing years of heated dispute about the inclusion of these scientific methods in law." Laurens Walker & John Monahan, *Daubert and the Reference Manual: An Essay on the Future of Science in Law*, 82 VA. L. REV. 837, 838 (1996). The authors did not count constitutional adjudication and construction among the potentially affected areas of law. This Article supports their view that *Daubert's* significance goes well beyond its specific holding and context.

373. See Margaret G. Farrell, *Daubert v. Merrell Dow Pharmaceuticals, Inc.: Epistemology and Legal Process*, 15 CARDOZO L. REV. 2183, 2189–207 (1994) (describing different interpretations of *Daubert*).

374. See *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 593 (1993) (explaining that "[w]hether [a theory or technique] can be (and has been) tested determines whether it deserves the label scientific").

375. *Daubert*, 509 U.S. at 593–95.

376. The *Daubert* Court did accept that science was tentative and probabilistic, but this is not the same as conceding that science, and scientific data, are socially constructed. See *id.* at 590 (conceding that "arguably, there are no certainties in science").

377. For a discussion of Karl Popper's philosophy of science, see generally KARL POPPER, *CONJECTURES AND REFUTATIONS: THE GROWTH OF SCIENTIFIC KNOWLEDGE* (5th ed. 1989). See also *id.* at 37 (asserting that "the criterion of the scientific status of a theory is its falsifiability, or refutability, or testability").

Constitutional empiricism is similarly positivist in both its perspective and core methodology. The very language of empiricism, which boasts generally of the judicial power to discover constitutional “reality,” is positivist. As the Court held in *Stenberg v. Carhart*, if the State cannot definitively *prove* that an abortion procedure *never* carries a safety benefit, then the State must provide an exception for maternal health.³⁷⁸ In a host of cases, governmental interests have been outweighed or deemed insufficient, not because the courts interpret the constitution as foreclosing a legislative choice, but because the government has failed to prove that a *real* harm exists, that a prediction comports with empirical reality, that a theory is verifiable, or that a causal claim is empirically valid.³⁷⁹ With empiricism, invidious governmental purposes must be established to a mathematical certainty. Similarly, affirmative action, at least when it is remedial in nature, requires a concrete showing of “substantial evidence” of verifiable past discrimination.

The methods used to adjudicate constitutional claims and interpret constitutional provisions are similarly positivist in nature. With empiricism, courts *test* legislative hypotheses, predictions, theories, and causal claims in an effort to falsify them. They construct equations for determining whether the Establishment Clause has been breached. In *Atkins*, excessive punishments are defined with reference to some combination of a numerical “consensus,” the direction of change in the observed legislative outputs, and the proportion of votes in favor of those outputs.³⁸⁰ After *State Farm*, due process is a fixed ratio, a 9:1 or perhaps even 1:1 empirical limit on punitive damages. With constitutional empiricism, everything is grounded in observation and data.

Thus, a significant portion of constitutional review is now premised upon “the neutrality of observation and the givenness of experience; the ideal of a univocal language and the independence of data from theoretical interpretation; the belief in the universality of conditions of knowledge and criteria for theory choice.”³⁸¹ Fundamentally, empiricism is premised upon the belief that there are “truths” or “realities” out there with regard to legislative predicates and constitutional guarantees, and that courts can “discover” these truths by gathering data, testing “hypotheses,” and establishing

378. See *supra* notes 167–76 and accompanying text (discussing *Stenberg*’s treatment of the “partial birth abortion” issue).

379. See *supra* Parts II.B–D.

380. See *Atkins v. Virginia*, 536 U.S. 304, 312–13 (2002).

381. BOHMAN, *supra* note 371, at 2.

formulas and ratios. In sum, constitutional empiricism has all of the trappings of positivist scientific method: It looks primarily to external observations both when examining legislative power and construing open-ended constitutional provisions; it characterizes legislative enactments as hypotheses or causal claims; it claims the power to distinguish “real” from speculative predicates; and it seeks to falsify legislative theories.

This positivist view of knowledge accounts directly for the forms and functions of constitutional empiricism. Where courts see themselves as constitutional gatekeepers, empirical methods and principles are logical precepts for constitutional rule-making, adjudication, and construction. As constitutional gatekeepers, courts do not exhibit the usual deference to legislative and other fact-finding and fact-generating communities. Just as *Daubert* freed courts to be more skeptical with respect to the conclusions and methods of a community of experts, constitutional empiricism has liberated courts to question, test, and falsify the methods and conclusions of legislative and other governmental bodies.³⁸² As a result of the empirical turn, courts no longer feel obligated to explain decisions solely with reference to precedent, history, or text. Rather, they often forsake judicial for laboratory robes, fashion hypotheses, test empirical claims, and construct empirical equations.

Ultimately, then, empiricism’s claim to objectivity purportedly rests with the data itself. “Real” harms exist or they do not, depending upon proof and observation. Societal “standards of decency” are objectively and naturally derived; legislative outputs are counted and recorded, their direction of change and proportion of support noted in the experimental record. Religious “coercion” is discovered by running sets of data through the Establishment Equation, which itself produces an objective truth. Due process depends upon a statistical inference of risk, perhaps, or a fixed ratio

382. There is a world of difference between these two gate-keeping functions. It is one thing, for example, simply to deprive a jury of empirical data about which a court is skeptical, but something altogether different to purport to measure the scope of *Congressional* power, or the content of constitutional liberties, with reference to empirical proofs. The Constitution has never been interpreted to *require* deference to experts, but it has regularly been interpreted by the courts to require deference to some legislative predicates, as under Section 5. *See, e.g.*, *Katzenback v. Morgan*, 384 U.S. 641, 656 (1966) (upholding, under a deferential standard, § 4(e) of the Voting Rights Act of 1965). Constitutional empiricism suspends inter-branch deference in a variety of contexts, even in situations where deference has long been the default rule. More generally, we are not talking about mere fact-finding processes here; we are talking, fundamentally, about defining constitutional powers and guarantees of individual liberty.

of punitive and compensatory damages. These are no longer matters of value or justice; they are empirical, verifiable truths.

Of course, the idea that constitutional empiricism can reveal objective “realities” and constitutional meaning, if accepted, would mark a radical improvement in constitutional decision-making. For one thing, adjudicating constitutional claims by means of “scientific” empirical processes would bypass some very difficult normative questions. If it is the case that the government has no “real” interest to protect or evil to target, for instance, constitutional balancing automatically becomes far more determinate. As Justice O’Connor has noted: “Balancing is difficult to undertake unless one side of the scale is relatively insubstantial.”³⁸³ Similarly, if meaning can be empirically and objectively supplied where, as is often the case, constitutional text is broad and amorphous, there will be far less hand-wringing concerning judicial “activism,” subjectivity, and indeterminacy where constitutional construction is required. There would be far less controversy if all there was to constitutional construction was the development and utilization of simple ratios and equations.

2. Quasi-neutrality: Inside the Empirical Black Box

Viewed in this manner, as a “scientific” alternative to subjective and contested constitutional decision-making and construction, much depends on empiricism’s claims to neutrality and objectivity. Careful analysis demonstrates that constitutional empiricism cannot bear the weight of those claims.

One of the rhetorical conventions utilized in the “science wars,” as the debates concerning scientific objectivity and determinacy have sometimes been called, is the notion of a “black box”. It is in this box that positivists are accused of concealing the socially and institutionally constructed and mediated realities of the scientific project.³⁸⁴ Constructivists, echoing the early jurisprudential debates that gave rise to realism, claim to seek an opening of the black box. Just as legal realists pointed out the constructed nature of legal facts, scientific realists argue that scientists do not merely “find” facts; they construct them from within vastly mediated contexts.³⁸⁵

383. *United States v. Nat’l Treasury Employees Union*, 513 U.S. 454, 482 (1995) (O’Connor, J., concurring).

384. See David S. Caudill, *Barely Opening, Then Slamming Shut, Science’s “Black Box” In Law: A Response to Beecher-Monas’s Heuristics*, 23 *CARDOZO L. REV.* 1795, 1796 (2002) (explaining “black box” concept).

385. See generally Erica Beecher-Monas, *The Heuristics of Intellectual Due Process: A*

Constitutional empiricism is subject to the “black box” critique. To begin with, the process of constitutional empiricism evinces the same limitations and biases as any empirical endeavor. Like scientific conclusions, empirically determined constitutional decisions are “based on subjective judgments made at key points ranging from the initial decision to study a particular phenomenon through the collection, categorization, and interpretation of data.”³⁸⁶

Indeed, the quasi-neutrality of empiricism inheres in the very standards by which the Supreme Court has defined the empirical turn. The decision whether to engage in empirical examination at all is often based upon subjective, and mostly unarticulated, judicial views concerning the “novelty” and “plausibility” of legislative predicates. Signal bleed is a novel or implausible predicate, according to the Court in *Playboy*, but secondary effects and special needs require virtually no empirical proof.³⁸⁷ The predicate of state gender discrimination did not strike the Court as at all implausible in *Hibbs*; but congressional action based upon state age or disability discrimination was subjected to, and failed to meet, a stringent empirical standard.³⁸⁸ Similarly, not all normative constitutional concepts are studied empirically. As scientists choose their agendas, the courts actively *choose* which among the many normative constitutional constructs will be defined by empirical proxy. “Due process,” for example, is rather narrowly empirically defined with respect to civil monetary penalties, but left largely to the discretion of juries and judges where criminal penalties are involved. Similarly, “evolving standards of decency” are a subject for empirical proof only because the Court has recently chosen to make them so.

Why is one legislative prediction or theory considered “novel” or “implausible,” while another is not? Why is it that the government can *prohibit* certain types of speech altogether without a scrap of

Primer for Triers of Science, 75 N.Y.U. L. REV. 1563 (2000) (addressing the situated nature of “facts”).

386. *Id.* at 1576.

387. *See supra* notes 183–91 and accompanying text (discussing the “signal bleed” predicate); *see also supra* notes 200–01 and accompanying text (discussing “secondary effects”).

388. *See supra* notes 233–36. We might say the same thing with regard to affirmative action. The Court made plain in *City of Richmond v. J.A. Croson Co.*, that a state program which takes race into account must be supported by a strong basis in evidence. *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 500 (1989). By contrast, in *Grutter and Gratz*, the Court required very little empirical proof that student body diversity brought tangible benefits to the campus environment. *See supra* note 252 (discussing *Grutter* and *Gratz*). This may have something to do with deference to institutions; but the Court provides no basis for any differential deference dynamic.

empirical proof as to a verifiable “real” harm,³⁸⁹ but must demonstrate the empirical soundness of other predictions, theories, or claims by substantial evidence? Why address “coercion” or “evolving standards” or “due process” empirically, while clinging to traditional sources of interpretation, like history, in other contexts? The Court makes no effort to explain these distinctions. Standards like “novelty” and “plausibility” and the use of proxies like “evolving standards,” the Establishment Equation, and punitive damages ratios, are empty vessels. They do not explain why some constitutional decisions are to be made with reference to empirical benchmarks, and some are not. That initial decision, from all appearances, is nearly, if not entirely, a matter of judicial fiat.³⁹⁰

But the origins of empiricism are not all that is being hidden away in the black box. As in any scientific endeavor, once a decision to proceed empirically has been made, a host of collection and categorization decisions must be made. Even before any purportedly definitive construction is placed on the data, empiricism requires that qualitative decisions be made concerning which of the array of empirical sources to consider.³⁹¹ In other words, there are no standards for determining what information “counts” for purposes of the empirical examination. As the discussion of empiricism suggests, governmental predicates may be supported by empirical proof of a wide-ranging nature. Some of the evidence will be anecdotal, some historical, and some will consist of more systematically collected data.³⁹² If constitutional empiricism is to be based on neutral indicators, there must be some principled manner by which to

389. See *Roth v. United States*, 354 U.S. 476, 493 (1957) (upholding obscenity statute), *reh'g denied*, 355 U.S. 852 (1957); *Ginsberg v. New York*, 390 U.S. 629, 635 (1968) (upholding “harmful to minors” statute); see also *Roth*, 354 U.S. at 501–02 (warning that “the very division of opinion on the subject counsels us to respect the choice made by the State”) (Harlan, J., concurring in the result, and dissenting in part).

390. *Eldred v. Ashcroft*, 537 U.S. 186 (2003), is the most recent example of this sort of empirical indeterminacy. In *Eldred*, the Court held that Congress acted rationally, and constitutionally, in extending the duration of copyright protection. *Id.* at 207. The majority stated that it was required to “defer substantially to Congress” because the copyright extension was based upon “judgments of a kind Congress typically makes.” *Id.* at 205. Justice Breyer, in dissent, disagreed with Congress’s empirical basis for extending copyright protection. See *id.* at 807–09 (Breyer, J., dissenting) (arguing that Congress’s empirical assessment of the value of copyright extension was not rational); see also *id.*, at appendix A (setting the foundation for the empirical analysis relied upon by Justice Breyer). Again, no standard was provided by the majority for its determination that empirical deference was warranted under the Copyright Clause, but not elsewhere.

391. See Beecher-Monas, *supra* note 385, at 1576–78.

392. See Rogovin, *supra* note 1, at 1746–62 (discussing various general types of empirical data relied upon by Congress).

determine what to collect and categorize, and what to ignore.

These qualitative choices abound in constitutional empiricism, as they do in other empirical endeavors. Insofar as constitutional empiricism is concerned, many of these qualitative choices are matters of what we might call “geographic relevance.” Does *national* evidence count when considering the existence of a *local* harm? Does a federal enactment require proof of a national harm? Is the Constitution, with respect to societal mores, geographically bounded, or can courts consider transnational norms? In assigning a value to the denominator in the Equality Equation, are national funding data relevant to an inquiry about a local program? Do false positives from *state* judicial systems count when considering the constitutionality of the *federal* death penalty?

Answers to these and other questions can have a dispositive effect on constitutional issues. Yet, as the discussion in Part II demonstrated, when such choices are made, courts do not feel obliged to explain them. The Court does not tell us why localized “special needs” searches and local zonings of sexually explicit speech can be supported by national statistics and extra-jurisdictional studies, respectively.³⁹³ It does not explain why a congressional *finding* of nation-wide discrimination against a class does not suffice to support an exercise of Congress’s power under Section 5. Nor are we informed as to why Congress needs evidence of discrimination from most states in order to defend a remedial measure, or a national field survey to prove the existence of a “national” evil.³⁹⁴ Why was evidence of *private* employer discrimination irrelevant in *Garrett*, but sufficient in *Hibbs* to form the basis for an inference of *public* sector discrimination?³⁹⁵ Why, given the Court’s receptivity to national data in other contexts, are national surveys and statistics considered irrelevant to the determination whether the government has properly taken race into account?³⁹⁶ The Court has developed, over time, a number of rules of geographic relevance. But, it has not bothered to explain them in a manner which gives us confidence that these rules

393. See *supra* notes 200–12 and accompanying text (discussing “special needs” searches and “secondary effects”).

394. See *United States v. Morrison*, 529 U.S. 598, 626 (2000) (noting that evidence of state discrimination was not adduced for all states); *United States v. Playboy Entm’t Group, Inc.*, 529 U.S. 803, 823 (2000) (concluding that “[t]he government has failed to establish a pervasive, nationwide problem justifying its nationwide daytime speech ban”).

395. See *supra* notes 227–36 and accompanying text (discussing *Garret* and *Hibbs*).

396. See *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 500 (1989) (discounting Congressional findings of industry-wide discrimination in inquiry concerning local set-aside program).

are being chosen on grounds other than expediency or judicial bias.

Empirical proxies also depend upon a host of antecedent qualitative choices. Depending upon the judicial view of “choice” under the Establishment Clause, more or less voucher-eligible programs, and more or less data concerning funding for parochial choices, may be appropriately added to the denominator of the Establishment Equation. Similarly, in examining symbolic endorsement or, as Justice Kennedy would have it, “proselytization,” why is the time of display a relevant variable?³⁹⁷ As the debate in *Atkins* demonstrates, international mores and public opinion polls regarding the execution of the mentally retarded are either relevant to a consideration of societal mores or wholly outside the bounds of appropriate inquiry, depending on the justice involved in the examination.³⁹⁸ Further, the choice of legislative outputs as the empirical proxy for our “evolving standards of decency” itself represents built-in assumptions regarding the appropriateness of measuring mores by representation, rather than by some more direct means. The Court’s focus on directional change and its consistency subsumes still other qualitative choices.³⁹⁹ With regard to the consideration of false positives, the *Quinones* court explained that it used state data because the data from the federal system was too small, and the convictions too recent, to draw any conclusions therefrom.⁴⁰⁰ Why doesn’t that conclusion suspend the empirical inquiry altogether?⁴⁰¹ Finally, the Court never explains in *State Farm* why it chooses to use compensatory damages as the denominator. If the point of the punitive award is to punish and deter, perhaps courts should look instead at the expected monetary gain from the conduct that is sought to be deterred.

Thus, the processes of formula fabrication and data collection fail to provide much-needed neutrality and objectivity. But there are still other reasons to be skeptical of the notion that empiricism provides generally applicable neutral principles for constitutional decision-making. Construction of the data, it turns out, is neither neutral nor

397. See *County of Allegheny v. ACLU*, 492 U.S. 573, 664 n.3 (1989) (Kennedy, J., dissenting).

398. See *supra* notes 315–26 and accompanying text.

399. See *Atkins v. Virginia*, 536 U.S. 304, 315 (2002).

400. *United States v. Quinones*, 205 F. Supp. 2d 256, 266 (2002) *rev’d*, 313 F.3d 49 (2d Cir. 2002).

401. The court argued that extrapolating from the state data to federal circumstances was appropriate because “there is no logical reason to suppose” that federal practices are any more sound than the state procedures that resulted in the false positives. *Id.* But that is only a judicial assertion.

determinate.

The interpretation of data lacks a neutral grounding. Indeed, with constitutional empiricism, the black box is doubly deep and doubly wide. The social and other constructions of the data under consideration are layered at two distinct levels. As interpretivists and pragmatists have persuasively argued, the data the Court is considering is itself socially constructed and situated.⁴⁰² But empiricist courts do not simply determine, as under *Daubert*, whether the data is of sufficient validity to be *considered* in the constitutional calculus or constitutional formula. In most cases, they reach dispositive conclusions based upon the data, thus introducing a second layer of construction based upon judicial preferences, backgrounds, norms, and beliefs. Empirical data comes to the courts in a socially constructed package, and the courts then repackage that same data in the process of making constitutional decisions.

Both of these layers of construction undermine empirical neutrality. *Daubert*'s influence downplays the construction that occurs at the first layer, viewing science essentially as a source of pure, unmediated information. In addition, at the second level, courts fail to appreciate that even this mediated information becomes further mediated during the process of interpretation. If empiricism establishes anything, it is that courts are not merely passive recipients of empirical data. As the experience of the early realists taught, the many mountains of data empiricism generates, or would generate, must be interpreted by someone. The empirical data does not, indeed it cannot, speak for itself.

Once the black box is fully opened, the embedded construction of empirical evidence is readily exposed. The process of data interpretation is no more value-free than the process of data collection; it is, if anything, even less so.⁴⁰³ Here *quantitative* indeterminacy inheres in the empirical standards themselves. We do not know how much evidence is "substantial," or "strong," or sufficient to demonstrate "plausibility," or "congruence," or "proportionality." In *Playboy*, for example, *potential* exposure to pornography through signal bleed was held not to establish a "real" harm, but the Court failed to indicate how many children must *actually* be exposed to the phenomenon of signal bleed before

402. See, e.g., BOHMAN, *supra* note 371, at 102–45 (discussing social construction of data and other issues of interpretation and indeterminacy in empirical inquiry).

403. See Tribe, *Constitutional Calculus*, *supra* note 4, at 597 (deriding as "myth" the argument that empirical techniques "are neutral in regard to matters of value").

Congress may enact national legislation to alleviate the evil. The Court has been similarly unclear with regard to how many instances of state discrimination would permit Congress to exercise its Section 5 enforcement power.⁴⁰⁴ If the courts were to empirically assess secondary effects, litigants would need to know how much of a decline in property values, or increase in crime rates, would justify restricting free speech. Where the courts are measuring the incidence of political corruption, they need to elaborate as to how much data and other evidence is required to demonstrate that large contributions actually corrupt politics. If a particular abortion procedure is the safest alternative in only 10% of cases, why is the State required to enact a maternal health exception for all cases?

Quantitative standards like “substantial” and “strong” cover over empiricism’s lack of neutrality. Quantitative issues, like qualitative ones, are resolved in a mostly *ad hoc* fashion, usually with little in the way of reasoned evaluation. Survey evidence, like that called for in *Playboy* and examined in *Florida Bar*, is variously relied upon as wholly dispositive, or wholly disregarded as irrelevant or scientifically invalid. Because judges have become somewhat skilled empiricists, they have little difficulty raising methodological and other concerns to discredit any data set or collection procedure they do not see as helpful to a particular position.⁴⁰⁵ Thus, at the heightened end of a sliding empirical scale, courts can easily pronounce a survey or other study of data as useless, unscientific, and lacking in any probative value. By contrast, at the lower end of the scale, where the same study supports some judicial preference or goal, courts can be quite forgiving of methodological and other empirical weaknesses.

Even as to empirical proxies, where neither data nor computation is complex, quantitative indeterminacy is substantial. In *Atkins*, for example, the majority counted 18 states that enacted

404. *Garrett* tells us that it must be more than six such instances for Congress to act, which was all that the majority claimed to find in the massive record. See *Bd. of Tr. of Univ. of Ala. v. Garrett*, 531 U.S. 356, 369–70 (2001). But what if, as the dissenters asserted, there were actually hundreds of observed instances? *Id.* at 379. This still would not seem to be very many, considering the scope of the database is nationwide. Perhaps the Court simply will know the number when it sees it. It certainly has not given more explicit guidance in the cases.

405. Chief Justice Rehnquist’s dissent in *Atkins* is a good example. There, he collects in an Appendix the public opinion polls the majority relies upon in determining societal attitudes toward execution of the mentally retarded. *Atkins v. Virginia*, 536 U.S. 304, 328 (2002) (Rehnquist, C.J., dissenting). The Chief Justice notes, with respect to these: “An extensive body of social science literature describes how methodological and other errors can affect the reliability and validity of estimates about the opinions and attitudes of a population derived from various sampling techniques.” *Id.* at 326.

prohibitions on execution of the mentally retarded.⁴⁰⁶ Of course, it is highly debatable whether these eighteen enactments, considered as a raw number, actually constitute a societal “consensus.”⁴⁰⁷ They are plainly not a majority, even if one considers only the population of states that currently administer a death penalty. Faced with a rather obvious quantitative dilemma, the Court did what any clever empiricist would—it changed the relevant quantitative measure. The Court changed the denominator from all states to only those states that had enacted legislation on the issue of execution of the mentally retarded since *Penry*.⁴⁰⁸ Then, making a second empirical adjustment, the Court focused not on the number of legislative outputs, which was still relatively small, but instead on what it described as the consistent and uniform *direction* of change.⁴⁰⁹ Since all of the eighteen outputs moved in a negative direction, prohibiting execution of the mentally retarded, at least the *direction* in which societal mores were moving was evident. Finally, the majority pointed out that the legislative prohibitions were adopted nearly unanimously.⁴¹⁰ But if an aggregate measure of individual mores is the proper measure (e.g., one person = unit of decency), should not we, as Justice Scalia suggested in dissent, account for constituency differentials when we consider the mores being represented by a given legislative output?⁴¹¹ Thus, perhaps a law in Maine should be “worth” less than a law in New York or California.

From a safe distance, *Atkins* looks value-free and precise; it gives the impression of empirical and mathematical certainty and objectivity. But, beneath the surface of this proxy is the black box, a collection of value-based choices that had to be made in order to interpret the Eighth Amendment. The *State Farm* punitive damages ratios are vulnerable to the same criticism. Surely the 9:1 and 1:1 ratios did not materialize out of thin air. Value choices must have been made in fashioning them, even if the Court is not willing to say so. Even in seemingly objective, scientific processes, opportunities for the insertion of subjectivity and bias abound. Empiricism, of course, does not take place in a staid, sterile laboratory; it is part of a highly charged adversarial process, one which results in the definition

406. *Id.* at 314–15 & nn.12–15. (citing legislation).

407. *But see id.* at 316 n.21 (referring to both a “national consensus” and a “much broader social and professional consensus”).

408. *See id.* at 314–15.

409. *See id.* at 315.

410. *Id.* at 316.

411. *Id.* at 346 (Scalia, J., dissenting).

of constitutional rights, powers, and values.

No wonder, then, that the data is massaged, handled, exploited, and manipulated. Charges of bias abound. The language of charge and countercharge erupts in opinions. Thus, the determination of societal mores rests either solely on the data considered by the Court or, according to Justice Scalia, “obviously upon nothing but the personal views of its Members.”⁴¹² An inference of religious coercion is dictated by the data, or entirely unsupportable, depending upon who happens to be holding the calculator.⁴¹³ Twelve false positives either conclusively demonstrate that fair administration of the death penalty is an impossibility or it is a constitutional irrelevancy.⁴¹⁴ The upshot is that even assuming some agreement as to *what* to count, *how* to count the data will likely remain hotly contested.

Finally, in addition to the qualitative and quantitative challenges discussed, there is also the ubiquitous problem of conflicting data, or empirical stalemates. Evidence almost never points only in one direction. Science, unlike law, does not aspire to derive absolute “truths.” But, although scientists can afford to declare empirical propositions a “draw” and move on to the next experiment, the law admits of no such flexibility. At least on some level, constitutional law must resolve disputes.

What, then, does constitutional empiricism have to say about empirical stalemates? The answer is not much, or at least nothing terribly coherent. In *Stenberg*, the Supreme Court acknowledged an empirical stalemate with regard to the relative safety of various abortive procedures.⁴¹⁵ The majority interpreted the stalemate as providing an edge to individual autonomy—if the State could not prove that partial birth abortions *never* have safety benefits, then the State would have to provide for a maternal health exception.⁴¹⁶ The *Stenberg* dissenters interpreted the stalemate from the state’s perspective; they resolved the empirical stalemate by deferring to the State.⁴¹⁷ It rather quickly becomes apparent that perspective is

412. *Id.* at 338 (Scalia, J., dissenting).

413. *See* *Zelman v. Simmons-Harris*, 536 U.S. 639 (2002) (discussing calculation of sectarian participation in voucher program).

414. *See* *United State v. Quinones*, 313 F.3d 49, 68 (2d Cir. 2002), *reh’g denied* 317 F.3d 86 (2003) (rejecting argument that capital punishment can be empirically invalidated).

415. *See* *Stenberg v. Carhart*, 530 U.S. 914, 936–37 (2000) (noting division of medical opinion).

416. *Id.*

417. *Id.* at 968 (Kennedy, J., dissenting) (stating that “[c]ourts are ill-equipped to evaluate the relative worth of particular surgical procedures. The legislatures of the several states have superior factfinding capabilities in this regard”).

everything where the data cut in more than one direction.

Constitutional empiricism has developed no conventions or rules for resolving such stalemates. Again, the matter often comes down to judicial attitudes about the novelty or plausibility of a legislative choice. Sometimes state interests are given the benefit of the empirical doubt. In *Nixon v. Shrink Mo. Government PAC*,⁴¹⁸ which examined state campaign contribution limits, some studies indicated that large contributions to public officials did not result in changes in candidates' positions, but other studies "point[ed] the other way".⁴¹⁹ Despite the empirical stalemate, the Court concluded that there was "little reason to doubt that sometimes large contributions will work actual corruption of our political system, and no reason to question the existence of a corresponding suspicion among voters."⁴²⁰ There was "little reason," that is, if you simply ignore all of the studies to the contrary. Perhaps the proposition that contributions cause corruption is viewed as more plausible than the state's view as to the safety of abortion procedures. The Court simply resolves the empirical stalemate, without giving reasons for its resolution.

Constitutional empiricism thus confronts, but cannot neutrally resolve, one of the most basic dilemmas of scientifically-based decision-making. Conflicting data, the absence of data, or minimal data only "mean" something insofar as the decision-maker interprets the conflict, the absence, or the weight of the evidence. Courts cannot adopt a resolution of empirical stalemates without approaching them from some perspective or paradigm of, for example, individual autonomy, as in *Stenberg*.

In sum, empiricist courts are no more neutral or externally oriented with regard to their data than social or natural scientists are in their various research contexts. Indeed, if anything, constitutional empiricism is less constrained than scientific processes, which are at least subject to a set of standard conventions. Once the veil of scientific objectivity is removed, we can see that all of the data being collected as a result of the empirical turn is subject to the interpretive constraints and limitations of the more general scientific project. Further, rather than telling us more about constitutional meaning, empiricism tells us less: We do not know why predicates are considered novel or implausible; we do not know the reasons behind the rules of empirical relevance; we do not know what suffices to

418. 528 U.S. 377 (2000).

419. *Id.* at 394.

420. *Id.* at 395.

meet quantitative standards; and we do not know where ratios and equations originated, and why. The search for neutral principles obviously cannot end with empiricism.

B. Shifting Paradigms: The New Constitutional Formalism

If empirical/scientific methods do not serve as valid, neutral principles, then how is empirical data, or sometimes its absence, being utilized in constitutional contexts? Why demand and collect data, and pay such significant attention to empirical matters, if not in service of the goals of objectivity and neutrality? What work, if any, is empiricism actually doing?

1. Judicial Supremacy and Skepticism

There is a reason we are only now discussing this phenomenon of constitutional empiricism. Only now does there exist a critical mass of empirical decisions. Prior to the early 1990s, empirical markers in constitutional law were a rarity. To be sure, courts balanced; but they rarely purported to actually measure legislative predicates. Prior to *Playboy*, Congress had not been required to demonstrate a national evil by field survey; prior to *Turner*, Congress had not been required to prove its predictions by substantial evidence; prior to *Bartnicki*, Congress did not have to provide empirical proof of the effect on downstream markets from upstream regulation; prior to *Boerne*, no massive empirical record was required to demonstrate “congruence” and “proportionality” under Section 5; and prior to *Croson* and *Adarand*, a majority of the Court had not sharpened the “strong basis in evidence” standard as applied to race-based preferences. So, the trend is new.

Empirical proxies also began to appear during the 1990s. It occurred to the Court that difficult choices with regard to the death penalty could be avoided by tallying legislative outputs. Similarly, with all of the data available regarding the use of vouchers, the *Zelman* Court, protestations to the contrary, could hardly avoid going empirical. The Establishment Equation was born. With data on false positives now available, the *Quinones* court could actually purport to calculate the risk of wrongful execution, something courts could not do previously, and something that at least the appellate courts remain reluctant to approve. Finally, the Court simply could not resist laying down some empirical ceilings for punitive damages. *Gore*’s loose guidelines were thus replaced, in *State Farm*, with fixed ratios.⁴²¹

421. See *State Farm Mut. Auto. Ins. Co. v. Campbell*, 123 S. Ct. 1513, 1524 (2003)

In one sense, all of this seems entirely plausible, even quite natural. We live, after all, in a scientific age. As courts have become more confident consumers of empirical data, they have enshrined their newfound faith in data and quantification in constitutional law. Perhaps we are experiencing something of a realist revival in the making, an apparent move toward a constitutional law based upon experience and observation. But as the early empiricists learned, and the Court is likely all too aware, mere reliance on data does not remove all judicial subjectivity from interpretation. There must be more here than a recognition that data exist and might turn out to be useful. If empiricism were simply a way of deciding constitutional issues more objectively, we would expect to see it utilized wherever data can inform decisions. As demonstrated in Part II, that simply has not been the case.⁴²² Empirical markers and proxies are chosen and generated purposefully.⁴²³ Data, or their absence, are being utilized to advance agendas.

Each of the benchmarks and proxies examined in Part II represents a portion of the comprehensive empirical turn in constitutional law. The phenomenon must be viewed as a whole. Taking a holistic approach, three trends emerge: an ascendant judicial power informed by increased empirical expertise; heightened judicial skepticism of legislative initiatives; and shifting doctrinal paradigms. The product of these three trends, discussed below, is a refashioned constitutional formalism, one which enforces concepts empirically.

Constitutional empiricism serves two broad jurisprudential functions. First, it functions as a wedge allowing courts, in certain areas, to reclaim some of the power that had apparently been ceded to other branches, particularly to Congress. Thus, empiricism is in some sense a means of aggrandizing judicial power. Second, empiricism now stands in for robust discourse concerning whether constitutional doctrine should be altered. When lawyers encounter bad law, they argue the facts. When courts encounter a doctrine they wish to discard or alter, they now think, speak, and analyze

(suggesting that 9:1 and 1:1 punitive-to-compensatory ratios comprise constitutional boundaries for due process).

422. See *supra* notes 200–12 and accompanying text (discussing “secondary effects” and “special needs” search cases).

423. It is important to note that this observation is not meant to imply any sort of bad faith or ill will by the Supreme Court in particular, or the judiciary in general. I do not claim, for example, that courts intentionally rely upon false data. My assertion, rather, is that constitutional empiricism is a purposeful turn—it serves ends.

empirically.

Thus, faced with the fact that the Commerce Clause, as it has been consistently interpreted for decades, imposes very few limitations on Congressional power, the Supreme Court suddenly became empirically skeptical. In *Lopez* and *Morrison*, the Court called for findings to be issued, at least in what it deemed to be “novel” circumstances, such as where Congress acts at what the Court believes are the outer “margins” of its powers.⁴²⁴ In these circumstances, the Court is no longer content to rely on *implied* legislative findings, but insists on more directly observable proof of effects on interstate commerce from the regulated activity.

About the same time it began to look outward under the Commerce Clause, the Court turned outward under Section 5 as well, demanding, now under some form of heightened scrutiny, objective verification of the “congruence” and “proportionality” of Congress’s remedial enactments. Here mere findings will not suffice. Under Section 5, there must be empirical proof in the legislative record of the congruence and proportionality of the enactment. One of the rather evident purposes of Section 5 empiricism is to establish the supremacy of *judicial* interpretations of the Fourteenth Amendment.⁴²⁵ It is now apparent that any congressional interpretation that does not comport with Supreme Court precedent will be treated as a “novel” and “implausible” enactment subject to heightened empiricism.

Commerce Clause and Section 5 cases are only two examples of a judicial ascendancy expressed in empirical terms. They represent a more general empirical movement. In the late 1980s and early 1990s, as technological innovation soared, the Supreme Court began to encounter more proactive legislatures. Legislative predictions and theories, as in *Turner* and *Bartnicki*, were subjected to an empirical “substantial evidence” requirement.⁴²⁶ Affirmative action programs, which appeared to be gaining a political foothold, were similarly held to be subject to a “strong basis in evidence” standard.⁴²⁷ Empiricism

424. See *United States v. Lopez*, 514 U.S. 549, 563 (1995) (calling for findings when substantial effects not visible to the “naked eye”).

425. See generally Timothy Zick, *Marbury Ascendant: The Rehnquist Court and the Power to Say What the Law Is*, 59 WASH. & LEE L. REV. 839 (2002) (noting decline in the deference that the Court is willing to give legislative enactments pursuant to the fifth section of the Fourteenth Amendment, as well as the heightened judicial review of executive agencies’ interpretation of the law).

426. See *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 666 (1994).

427. See *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 500 (1989) (quoting *Wygant v. Jackson Bd. of Educ.*, 476 U.S. 267, 277 (1986)).

effectively cautioned a slower legislative process in these areas. In each case, the Court conveyed its skepticism through empirical benchmarks. The Court effectively used empiricism to head off legislative initiatives it determined had not been sufficiently vetted or considered by legislatures. It has done the same thing with empirical proxies, limiting execution of the mentally retarded, for example, based upon a judicially defined societal "consensus." Finally, when the Court believed that jury discretion on punitive damages simply became too expansive, it cabined that discretion in *State Farm* with judicially crafted numerical ratios.

Thus, the Supreme Court turned the tables on legislatures, and sometimes juries, empirically. This is how the Rehnquist Court, in particular, expresses its disagreement with legislative initiatives and proposals, with congressional and other interpretations of the Constitution, and with seemingly out-of-control jury awards. These areas are now heavily marked and constrained by empirical boundaries.

2. A Refashioned Constitutional Formalism

As noted, however, the empirical turn is more than a means of judicial aggrandizement; and it is more than a means of giving voice to judicial pique. Empiricism does actual work, just not the work we might suppose from a movement with an empirical and scientific veneer. As explained, empiricism, as method, does not generate viable neutral principles for constitutional decision-making. An even closer study of this method of review shows that the mountains of data, indeed all of the quantification and measurement, serve a concrete set of formalist and conceptualist ends.

Empiricism looks outward, not for knowledge of what the law ought to be, but for evidence to support already formulated conceptions. *Lochner* era decisions generally made no pretension to considering social or other context. By contrast, the new constitutional formalism is expressly articulated in empirical, contextual terms. Empiricism is the new scientific face of *Lochner*-ism; it carves out new spheres of liberty and authority, only this time with reference to purportedly objective measurements and empirical precepts. In this sense, the Rehnquist Court has merely repeated the error of the early realists, who substituted their own infatuation with empirical methods for Langdellian "science."

"Old" Commerce Clause formalism relied expressly upon

conceptual categories to determine whether a regulation was within Congress's power.⁴²⁸ Recent decisions shake off the old formalism of verbal categorization, only to take on the new, empirically-derived formalism. Rather than continue on the path of deference charted between 1942 and 1995, the new formalism essentially reaches the same ends as the old by insisting on empirical findings that commerce has been "substantially" affected. Although the Court speaks in empirical terms, its clear signal, taking *Lopez* and *Morrison* together, is that Congress is not permitted to regulate areas that are, in the Court's view, reserved for state control.⁴²⁹

This new formalism is more pronounced still under Section 5, which has been transformed from a once plenary power to one that is empirically, and hence, categorically limited.⁴³⁰ Although the Court's view of its own power to interpret the Constitution, and its view of proper federal-state boundaries, ultimately drive the "congruence" and "proportionality" examination, note that it is the *legislative* record that routinely comes in for judicial criticism. Unless the data indicate the presence of some undefined but apparently judicially knowable number of instances of a species of discrimination the Court *itself* has previously condemned as unconstitutional, Congress is wasting its time compiling national or other statistics on discrimination.⁴³¹

In both the commerce and Section 5 areas, the new formalism, like the old, categorically limits Congress's power in support of the Court's concept of federalism. The only difference is that the categories are being enforced or policed empirically rather than with reference to formally announced categories. It is far simpler, for the

428. See *United States v. Morrison*, 529 U.S. 598, 642 (describing cases exhibiting traditional categorical approach to commerce power).

429. Regulation of local criminal or marital matters are considered novel and implausible interpretations of the breadth of Congress's constitutional powers. When these areas are implicated, empiricism is the Court's trump card.

430. Section 5 cases must be interpreted in light of the Court's squeeze play under the Commerce Clause and the Eleventh Amendment. Shifts in the federalism paradigm in those areas have increasingly forced Congress to rely upon Section 5, while at the same time the Court has become less and less deferential to Congress. See Robert C. Post & Reva B. Siegel, *Equal Protection Law: Federal Anti-discrimination Legislation After Morrison and Kimel*, 110 YALE L.J. 441, 450-56 (2000).

431. In fact, as *Hibbs* strongly suggests, the state of the record is nearly inconsequential. It is the Court's view of the novelty and plausibility of Congress's constitutional interpretation which controls the outcome in Section 5 cases. The only categories open for legislation are those the Court has narrowly defined by precedent, and sufficient empirical demonstrations, as *Garrett* demonstrated, are quite improbable, if not inconceivable. See Frickey & Smith, *supra* note 1, at 1748 (conveying skepticism that a more robust record would have changed many of the recent Section 5 results).

Court anyway, to announce Congress's empirical failures than to justify constitutional categorization or doctrinal change.

More generally, across the constitutional spectrum, "novelty" and "plausibility" outwardly appear to invite contextual consideration. But these open-ended standards have only reinforced the sort of formalist balancing courts have engaged in for many years. If empiricism were only engaged as a means to avoid conceptualism and render more accurate and objective context-driven decisions, we would expect that the Court would embrace empiricism widely, particularly where it is simple to utilize. Again, that has not been the case. There are many contexts, or categories, in which the Court does not concern itself with what the world "out there" can tell us.⁴³²

On the other hand, there are circumstances in which observations and data are considered vital and dispositive, even where empiricism makes little practical sense.⁴³³ Any regulation of speech that is communicated over new media—for example, cable (*Turner*), the Internet (*The Free Speech Coalition*), or wireless networks (*Bartnicki*)—requires substantial empirical support. By treating all restrictions in this category as both "novel" (based, apparently, upon the newness of the media) and inherently "implausible," the Court has effectively carved out a broad category of speech regulations that must meet a heightened empiricism.

Empiricism is also an effective control when it comes to limiting claims of racial inequality and governmental reliance upon race in classifications. Only a decisive "mathematical demonstration" will support an inference that government policy is being pursued for invidious purposes, or that remedial measures based on race are necessary.⁴³⁴ Cases like *McCleskey*, *Adarand*, and *Croson* all indicate that statistics, although treated as constitutionally relevant, will not resolve this category of constitutional issues regardless of their strength or validity. In sum, empiricism serves to protect the Court's current conception of equality.

Finally, it is astonishing how quickly empirical proxies, which at

432. Contrast the obvious empirical nature of the "secondary effects" inquiry with the empirical analysis of congressional predictions. See *supra* notes 190–192 and accompanying text (discussing "secondary effects"); see also Part II.C (discussing judicial treatment of congressional predictions).

433. It is difficult to take empiricism seriously in some contexts; for example, the world "out there" will rarely contain the sort of mathematical proof required to sustain certain legislative predicates, especially predictive and proactive ones. All the courts must do to maintain categorical control over proactive measures is to posit the empirical test, then proclaim a failure of evidence.

434. See *Gomillion v. Lightfoot*, 364 U.S. 339, 341 (1960).

first glance promise escape from old conceptualism, can be fashioned into a new conceptualism. “Free choice” under the Establishment Clause, for example, only means something if we have some benchmark by which to measure the concept of “coercion.” To a formalist examining vouchers, “free choice” simply means that there are some educational alternatives to religious schools to which a voucher may be endorsed. As *Zelman* demonstrates, the concept of “free choice,” thus manipulated, actually screens nothing out. Once we count *all* of these alternatives, no matter how realistic participation in them might be, the denominator in the Equality Equation balloons, and the product of the equation suggests a lack of coercion.⁴³⁵

Similarly, as *Atkins* demonstrates, the same can be said of present judicial beliefs concerning the content of the “cruel and unusual punishments” clause. We should be wary of claims to objectivity where judges with pre-conceived notions of what the law requires pick and choose not only which inputs to consider, but also how to measure and characterize the outputs. As *Atkins* demonstrates, societal mores can readily be bent to judicial conceptions, where a focus on the *amount* of change in the statutory environment suddenly becomes a new focus on *directional* change. After the experiment, we know less about what “society” currently believes than what a majority of the Court believes the law ought to be. Nor are the new ceilings for constitutionally “proportionate” punitive damages awards self-explanatory. Where lines are drawn, as often they must be, courts should explain their choices. It is the height of formalism to simply announce what the ratios are to be and demand that reviewing courts respect them.

In sum, just as balancing promised, and failed, to lead courts to more “realistic” and “scientific” constitutional decision-making, so has empiricism, the latest empirical turn, failed to deliver more accurate or objective results. Like balancing, empiricism, in the hands of the courts, has developed into a rigid categorical approach to constitutional adjudication. Empiricism, at least as it has developed to this point, does not represent a way out of categorical balancing. It merely reinforces judicial categories previously chosen by applying a heightened empiricism to laws the courts view as “novel” and

435. The fact that judges looking at the same voucher program can proclaim that either as little as twenty percent of pupils, or as many as ninety-six percent, receive state vouchers to attend religious schools, demonstrates only that “results may shift when a judge can pick and choose the alternatives to use in the comparisons.” *Zelman v. Simons-Harris*, 536 U.S. 639, 700 (2002) (Souter, J., dissenting).

“implausible,” by manipulating data and equations, and by instituting ratios without explaining their origin or substance. With empiricism, the constitutional “truth” always remains “relative to the theory.”⁴³⁶

IV. CONSTITUTIONAL TRUTHS

Part I sketched the search for objective manifestations of legal meaning in general, and constitutional meaning in particular. Focusing on the world “out there” has been a common theme in the law, and elsewhere, at least since the early twentieth century. Empiricism does not provide neutral principles for constitutional decision-making. Thus far, courts have been putting empiricism to work primarily to police certain categories of legislation and to bolster normative interpretations of certain constitutional guarantees. But just as the realization by scientists that their knowledge claims are socially constructed does not lead inexorably to the abandonment of the scientific project,⁴³⁷ it does not necessarily follow from the criticisms of this Article that empiricism fails in all respects to contribute to our knowledge of context in constitutional cases, or that it could not do so if courts could move beyond the narrow formalism which currently characterizes constitutional empiricism.

It is important to appreciate that constitutional law, which ultimately must resolve disputes, literally cannot afford to become mired in the deep skepticism of a hermeneutic circle.⁴³⁸ Courts will undoubtedly continue to adjudicate and construe empirically. Thus, even acknowledging that empiricism is not now the best possible path to constitutional meaning, we must ask whether it might still contribute to understanding and knowledge in constitutional cases. In making that determination, we should be attentive to the implications of an empirical approach for the health and vitality of constitutional discourse. The closing Part of this Article addresses these issues.

A. *Empiricism as Power Delimiter and Rights Definer*

Constitutional empiricism enlists empirical methods primarily to define the boundaries of legislative power, by distinguishing “real”

436. Brian Z. Tamanaha, *The Internal/External Distinction and the Notion of a Practice in Legal Theory and Sociological Studies*, 30 LAW & SOC'Y REV. 163, 170 (1996).

437. See, e.g., BOHMAN, *supra* note 371, at 124–42 (arguing that situated interpretation—the “hermeneutic circle”—need not lead to universal skepticism).

438. As one author has described it, the hermeneutic circle provides: “Everything is interpretation, and interpretation is itself indeterminate, perspectival, and circular.” *Id.* at 113.

from speculative harms, and to define the content of certain constitutional rights and liberties. But, of course, constitutional empiricism is part of a *legal* process whose methods and purposes for seeking, acquiring, and identifying truth differ in important respects from empirical-scientific processes and purposes. An analysis of constitutional empiricism must take these differences into account.

Conventional accounts of the distinctive methods and purposes of scientific and legal programs for knowledge acquisition often include at least the following observations: law is adversarial, whereas science is cooperative; law limits the admission of data, whereas science expands the consideration of data; law is a closed system, whereas science is an open and continuous process; law is a deductive system, whereas science is an inductive, continually growing body of knowledge; law's primary concern is with legal accuracy, whereas science is concerned also with the rigor of methods, such that scientists speak in terms of "good" and "bad" empirical results; and law is based upon "certainties and the absence of reasonable doubt," whereas science is based, at its best, upon "probabilities and generalizations."⁴³⁹

If empiricism purports to be a more scientific, and more objective, source of constitutional knowledge, it ought at least to share some of these scientific attributes. As we shall see, however, constitutional empiricism, which claims the power to discover "reality" and rights empirically, somewhat half-heartedly picks and chooses only certain elements of the scientific program. Empiricism is based on observations, to be sure, as well as hypothesis testing and the verifiability of "real" harms. It thus incorporates the language, simple calculation, and some of the other methods of the scientific project. But empirical review, as presently utilized, is narrow, constrained, and less comprehensive than a truly scientific search for knowledge and understanding. This narrowness negatively impacts constitutional empiricism's claims to knowledge.

1. Empirical Filters

One of the legal characteristics of constitutional empiricism is the narrow filter it applies to the reception of evidence. We can see, for example, that the courts' narrow, disaggregating approaches to empirical evidence in racial discrimination cases ignores fundamentally important elements of social context. For example, national data on racial discrimination is considered wholly irrelevant

439. See ERICKSON & SIMON, *supra* note 147, at 6.

to any local preference based upon race. Because the courts are so narrowly focused on legal remedy and idiographic knowledge, they fail to consider and utilize the full range of nomothetic data that is at their disposal. A fuller, more ecologically holistic approach would at least allow for the reception of data concerning national trends.⁴⁴⁰ Who can doubt that the generally unequal distribution of benefits like education and wealth are at least *relevant* to the current state of affairs in local contracting contexts? Constitutional empiricism fails even to consider how discrimination in one context may be connected to discrimination in other contexts. It uses data as it might precedent, as a means to dispose of legal claims, rather than as a search for knowledge about social circumstances. As a result, empiricism's claim to discovering the truth with respect to remedial and other predicates is weaker than it might otherwise be.

Similarly, when Congress finds that the disabled have been subjected to a history of discrimination, both private and public, that finding should "count" for something in determining whether Congress has exceeded its authority under Section 5. Under Section 5, however, the precedential filter defines the population of observations that will be taken into account. Narrowing the relevant data to *specific* instances of discriminatory treatment condemned by *specific* Supreme Court precedents fails to give anything like a complete picture of the social context of disability discrimination. Again, legal standards permit a disaggregation of empirical evidence that scientific processes expressly reject. A truly scientific examination would take into account more than a pre-defined category of data. It would also be open to other interpretations of that data, in a way the current Court is not open to congressional interpretations.⁴⁴¹ Insofar as the empirical process narrows evidence and cuts off even the consideration of other interpretations, its claim to "real" knowledge rings false.⁴⁴²

440. The legal focus on idiographic knowledge is particularly important in the equal protection area, where the Supreme Court has been reluctant to draw any conclusions about individual discrimination from broad sociological findings. In this context, the Court refuses to infer anything about individual behavior from nomothetic knowledge about the behavior of classes of people. The importance of social context in defining equality is discussed in Charles L. Black, Jr., *The Lawfulness of the Segregation Decisions*, 69 YALE L.J. 421 (1960).

441. See generally Zick, *supra* note 425 (critiquing Supreme Court's refusal to share interpretive authority with Congress).

442. Note that I have not claimed that any of this contextual data is *dispositive*. There is force to the argument that a local preference based on race should be based on at least some evidence of local harm, just as there is force to the claim that judicial interpretations of the Constitution should, in some circumstances, be dispositive. Where, for example,

We know that a more open empirical process is possible. Contrast the legal narrowing in discrimination cases to the empirical approach in *Atkins*, in which the majority at least allowed for the consideration of transnational norms in determining whether our Constitution should prohibit execution of the mentally retarded.⁴⁴³ That the mere *consideration* of this data drew such a visceral reaction from the dissent is testament to the ultimate narrowness of the legal program. The dissenters would have narrowed the reception of data solely to historical circumstance or evidence of jury outputs, rejecting as irrelevant not only legislative outputs and transnational data, but also polling data taken inside the United States.⁴⁴⁴ We must ask what harm flows from merely *considering* global social context. From an empirical perspective, courts should consider the full range of information that is available.

A narrow, legally situated empirical approach expressly rejects the openness of the scientific program and, as a result, often pre-determines outcomes without considering relevant data. In this sense, empiricism does not fail because it considers data and observations, but because it does not consider enough of them. If judges wish to be empiricists, they should fully and honestly embrace the data at their disposal. Right now, constitutional empiricism is poorly positioned to advance our knowledge concerning the limits of governmental power and constitutional guarantees. It gives disproportionate weight to narrow categories of empirical data, without considering broader contexts. Empiricism cannot appreciate the “real” scope of the problem the government is seeking to address.

Congress enacts legislation for the express purpose of overturning existing Supreme Court precedent, the argument for judicial supremacy has force. See generally *City of Boerne v. Flores*, 521 U.S. 507 (1997) (holding Congress exceeded its enforcement powers by enacting the Religious Freedom Restoration Act in direct conflict with prior Court precedent interpreting the Free Exercise Clause). But where the precedential landscape is more open, the argument that only the Court may define the substance of constitutional rights is far weaker, particularly given Section 5’s express grant of power to Congress. But a broader consideration of data demonstrating discriminatory trends and patterns is surely relevant if the goal is to acquire knowledge about the “real” evil the legislature proposes to remedy. And expanding the scope of relevant Section 5 observations will at least respect the notion, set forth in Constitutional text and accepted in scientific inquiry, that there is more than one interpretation of “truth.” A scientific approach would not interpret the data before it has even been collected.

443. See *supra* text accompanying note 321 (noting the *Atkins* court’s reliance upon views of countries in the European Union).

444. See *supra* note 322.

2. "Good" Versus "Bad" Empirical Results

As mentioned, science proceeds with reference to certain accepted rules for assessing the accuracy and objectivity of research results. Taking into account the dilemma that knowledge claims are socially and institutionally situated, scientists routinely emphasize and assess their methods in order to smoke out bias and construction in their results and conclusions. Constitutional empiricism, as a method of judicial review, does not include any similar standards or methodological critique. This has allowed for the rise of a new constitutional formalism. Masking judicial bias and formalism with empirical results is possible in part because there is no agreed upon way to distinguish "good" and "bad" empirical results. Observers, including legislators, do not have any means to draw conclusions about the accuracy and objectivity of the courts' empirical determinations, or their own. Nor can they learn from any empirical mistakes, since the Court has not provided meaningful empirical guidance.

Although scientists are attentive to methods, this particular dilemma is far from resolved in the scientific community. Thus, we can expect that a set of standards governing claims about the accuracy and objectivity of empirical findings in constitutional cases will not be readily agreed upon. We can, however, at least begin by identifying the problem, and by offering some observations.

One specific observation is that empiricism should, at a minimum, choose the relevant geographic locus as its starting point for empirical examination. If a problem is local in scope, then the locality ought to be the starting point for the empirical inquiry.⁴⁴⁵ Courts cannot possibly know whether a locality has a "special" need for an intrusive search and seizure policy unless there is some minimal indication that a drug problem exists at the local level.⁴⁴⁶ A committed empiricist truly interested in acquiring knowledge about

445. By the same token, a national evil should require a national context, not an isolated group of incidents. But, the Court must be realistic about the legislative process, and the legislative competence to generate records beyond that which was produced in cases like *Garrett*. Congressional findings must be considered, in addition to concrete instances of discrimination, anecdotal accounts, and surveys. Again, the narrow legal filter prevents courts from gaining the necessary understanding of the evil Congress seeks to confront.

446. This assumes, of course, that courts would apply empiricism in such contexts. In a sense, the Supreme Court has already done so—it has both invalidated searches for lack of evidence of a special need, and it has upheld searches based upon national data. What is generally missing is any consistency of application; this should be high on the list of improvements if empiricism is to be retained as a method of review in constitutional cases.

local context could not, as the Supreme Court currently does, rely solely upon *national* data to answer this foundational question.⁴⁴⁷ Similarly, “secondary effects” are peculiarly local speech externalities. Judicial decisions which allow regulation based solely on extra-jurisdictional effects are simply not based upon any knowledge of local social context. Thus, from an empirical perspective, permitting local regulation based solely on national or extra-jurisdictional data must *necessarily* be considered a “bad” empirical result. The locus of inquiry problem is only one specific instance in which we can begin to speak in terms of “good” versus “bad” empirical results.

Constitutional empiricism raises much larger methodological concerns. Empiricism proceeds on the apparent assumption that courts need sufficient knowledge of the external world to resolve constitutional issues. As a means of acquiring knowledge, science and empiricism may have few peers. But as the foregoing discussion demonstrates, we have substantial reason to be skeptical of a naturalist approach to constitutional law, particularly one which is based on judicial notions of “novelty” and “plausibility.” Empiricism is useful only insofar as it is utilized in a manner that is consistent and coherent, and that allows observers, legislators, and others to compile empirical proofs, to predict outcomes, and to confirm or reject judicial claims to empirical truths and falsities.

Thus, empiricism is only a valid means of ascertaining constitutional meaning if empirical benchmarks are both (1) well-defined and (2) realistically attainable. Constitutional empiricism fails on both counts. We certainly have good reason now to believe that heightened empiricism will apply in specific contexts, such as where Congress exercises its Section 5 power (at least where a classification that does not merit heightened scrutiny is involved) or where a legislature seeks to regulate speech in a new medium. But legislators could not have known this at the start of the 1990s, and we still have no idea which other enactments or policies will be considered “novel” and “implausible” by courts in the future. Although it seems inherently logical, we cannot merely use the level of scrutiny as a proxy for heightened empiricism. Many speech restrictions subject to strict scrutiny have received an empirical pass, while those subject to lesser scrutiny have failed to meet newly

447. This is not to say that the existence of a national drug problem is irrelevant, but only to suggest that data concerning a national evil cannot be dispositive where the locality constitutes the relevant unit under examination.

announced empirical markers.⁴⁴⁸ Heightened empiricism, in other words, does not always follow heightened scrutiny. Predicates, theories, and causal claims that receive an empirical pass in one context, or have been accepted on prior occasions, have been empirically invalidated on later occasions for largely unstated reasons. Thus, to at least begin to remove the subjectivity inherent in constitutional empiricism, heightened empiricism should follow more precisely heightened scrutiny.

In addition, even if regulators could accurately predict heightened empiricism, there is little guidance on how much data is considered “substantial,” or presents a “strong basis,” or demonstrates “congruence” and “proportionality.” This problem is, of course, hardly limited to constitutional empiricism; a great many legal standards—“preponderance” and “reasonable doubt” to name two of the best known—suffer from the same sort of vagueness.

Here we are talking about fundamental separation of powers issues and the scope of basic constitutional rights. There is special cause for alarm and skepticism where constitutionally determinative empirical benchmarks are so vaguely expressed. An empiricism as murky as we now have cannot helpfully delimit the boundaries of legislative power. It cannot tell Congress, for example, when it has reached a “good” empirical result. *Hibbs*, the Court’s most recent treatment of Section 5, highlights this problem.⁴⁴⁹ The record in *Hibbs* did not come near that compiled in *Garrett*, yet it was deemed sufficient to uphold the exercise of congressional power. Perhaps that was because the classification (gender) involves a less rigorous legislative proof, but the data the Court relied upon was tantamount to no empirical record at all, at least by its own recent standards.

448. See, e.g., *Burson v. Freeman*, 504 U.S. 191, 199–200, 208–09 (1992) (upholding, under strict scrutiny, restrictions on activity near polling place despite absence of empirical evidence of harm); see also *Nixon v. Shrink Mo. Gov’t PAC*, 528 U.S. 377, 390–91 (2000) (upholding limitations on contributions in campaigns for state office, despite absence of substantial evidence indicating corruption or its appearance). In *Nixon*, the Court was convinced that Missouri’s limits did not suppress political speech because, prior to the enactment of contribution limits, “97.62 percent of all contributors to candidates for state auditor made contributions of \$2,000 or less.” *Id.* at 369. The dissenters countered that there was no data regarding the percentage of funds provided by large contributors. See *id.* at 426 (Thomas, J., dissenting). They also pointed to the quantitative data in the record demonstrating that the contribution limits diminished political speech, including data on aggregate spending in elections, and the diminution post-spending cap of contested elections. See *id.* at 426 n.10 (indicating that “overall spending in statewide primary elections plummeted 89 percent, falling from \$14,249,000 to \$1,625,000,” and noting that before caps, each of ten statewide primaries was contested, while after caps only one of ten was contested).

449. See *supra* notes 233–36 and accompanying text.

Something else, then, must explain why the record in *Hibbs* was a “good” empirical compilation; it is troubling that the Court does not tell us what that something is.

It is important, as well, to recognize that empiricism marks a radical departure from the traditional legislative model. The notion that legislatures need empirical proof—beyond findings, committee hearings, and the like—to sustain enactments represents a shift in institutional dynamics and the separation of powers. Constitutional empiricism is necessarily pushing legislatures toward an empirical/administrative model of legislative power, but without providing any real guidance on important qualitative or quantitative issues.⁴⁵⁰ Without some basis for foresight, governmental bodies find themselves laboring under empirical benchmarks they had no reason to believe were applicable to the legislation or policy under consideration.⁴⁵¹ Or, they compile mountains of data only to be told that it is “not enough,” or that it does not identify a “real” evil sufficient, in the courts’ view, to merit governmental concern. A useful empirical dynamic must spell out more clearly what is required; it must enable legislators and their aides to separate good from “bad” empirical results as they legislate.

The same goes for empirical proxies—the formulas, equations, and ratios which are now used to define certain constitutional rights. Legislatures should know *in advance* that directional change will be dispositive of “evolving standards,” and they should have some explanation for why this is so. It is a simple matter to verify the number of enactments within a specific time frame which prohibit a specific practice. It is also easy enough to verify the direction of change. But we cannot assess the significance of the shift in direction unless we are told why the direction of change is considered empirically significant in the first place. Nor can we have an Establishment Equation without standards to guide which data are relevant to the equation’s denominator. Nor should judges or juries labor under a 9:1 due process ratio with regard to punitive and compensatory damages without some explanation as to why the ratio has been assembled as it has, and why the Court has drawn the line where it has. Without some guidance, or at least some discussion, of

450. See generally Frickey & Smith, *supra* note 1 (discussing in detail the Court’s legislative record analysis in Section 5 cases).

451. Colker & Brudney, *supra* note 1, at 85–86, refer to this phenomenon in the Section 5 context as the “crystal ball” legislative record requirement. The same moniker might be applied as well to the other contexts in which the Court has recently announced empirical benchmarks.

these methodological issues, an empirical approach brings us no closer to defining or verifying constitutional norms than a statement of judicial "common sense."

Of course, if it is based on a search for constitutional truths, empiricism has to set realistic and attainable standards. It must take into consideration the empirical limitations under which Congress, for example, operates. The Section 5 cases, in particular, seem to ignore these limitations. Congress may well be institutionally incapable of compiling the sort of "legislative record" the Court requires. And one wonders how, in cases like *Barnicki*, the government is expected to prove to the Court's satisfaction that restrictions on upstream dissemination will dry up the downstream market for intercepted communications. Even if data on Title III's application and enforcement were available, and systematically collected, lawyers cannot simply "experiment" with Title III's application to determine the effects changes in certain variables might produce. A government-commissioned study of up and down-stream behaviors in light of certain incentives and disincentives would seem to be a very poor proxy for how the statute is working in real contexts.⁴⁵² Similarly, the *Turner* cases demonstrate the difficulties inherent in requiring Congress to prove the empirical validity of its predictions.

Finally, recall that constitutional empiricism follows constitutional balancing as a scientific exegesis of constitutional meaning. Ultimately, however, empiricism fails to save constitutional balancing from conventional charges of empirical indeterminacy. One of the principal criticisms of balancing is that the private and public interests being weighed cannot be placed on a common scale.⁴⁵³ Empiricism only exacerbates the problem. Until recently, courts generally weighed abstract interests when they balanced. The right to expression, for example, was weighed against the government's right to protect children from harmful materials. These are, of course, apples and oranges, but at least they are both abstract fruits. Empiricism, by demanding that the government prove the existence of a "real" harm, requires a balancing of abstract apples with empirical carrots. The right to expression, for example, remains one

452. Given the rising empirical competence of the courts, one can well imagine the judicial critique of such a study's methodology; courts would almost certainly challenge, among other things, the generalizability of any findings and conclusions.

453. There have been occasional attempts to improve upon the imprecision of the balancing calculus. See, e.g., David L. Faigman, *Measuring Constitutionality Transactionally*, 45 HASTINGS L.J. 753, 754-55 (1994) (describing algebraic model to portray relationship between liberty and governmental interests).

of only abstract analysis, while the government's predicate, whether in the nature of a present perceived harm, a prediction, or a theory, is subject to empirical measurement and objective verification. Unless and until there is a way to quantify and empirically operationalize the private end of the scale as well, balancing, it seems, only becomes less determinate as a measure of constitutionality.

Perhaps, despite all of these limitations, empiricism at least forces the courts to confront empirical realities, thereby constraining them from making constitutional law that is based on bad empirical results. Indeed, some have claimed that empirical data plays an important role in restraining and guiding the law, by forcing courts in particular "to confront empirical realities, or at least to articulate more explicitly the normative rationale underlying legal decisions."⁴⁵⁴

This view assumes that courts, once they adopt empiricism and its quasi-scientific methods, will give empirical data due consideration and respect. My own examination of constitutional empiricism, however, strongly suggests that this is an overly optimistic view. No matter what kind of data is at issue, courts do not seem to be constrained by the empirical record. Indeed, if anything, courts are even *more* willing to manipulate narrowly defined empirical data than other, more traditional sources of constitutional construction, such as text, history, and precedent. Data have yet to engender anything approaching the respect of these other sources. Until they do, courts will likely continue to manipulate data as they sometimes do other forms of evidence.

In the scientific community, studies are often undertaken expressly to falsify previous efforts, and scientists cannot afford to ignore significant studies in their fields. Constitutional empiricism is not similarly constrained, as courts are not using data to falsify their own notions of what the law should be, but to support their claims of what the law is, or to selectively "falsify" legislative enactments based upon a lack of empirical support. Courts simply define for themselves which empirical results and conclusions are considered "good" and which are deemed "bad." The discussion of the forms and functions of constitutional empiricism in Part II attests to the judiciary's flexible use of data and other external observations. At present, empirical data in constitutional cases appear to constrain judges only insofar as

454. Richard E. Redding, *Reconstructing Science Through Law*, 23 S. ILL. U. L.J. 585, 604 (1999) (internal citation omitted); see also Faigman, *supra* note 1, at 611–12 (noting that although empirical research might "complicate litigation and engender unexpected legal outcomes," a "broader view, however suggests an essential role for empirical research in forcing the Court to tackle the difficult normative issues before it").

they wish to be constrained. Only substantial judicial attention to the generation and utilization of clear empirical benchmarks will reverse this course.

3. Legal Certainties and Empirical Probabilities

Science accepts, even celebrates, uncertainties. As an evolving process, science proceeds based upon probabilities and generalities. Unlike law, it does not make claims to universal truth. Thus, a truly empirical and scientific approach to constitutional law would not focus on or demand certainties or the absence of all doubt. Empiricism would not demand a “mathematical demonstration” of discriminatory treatment, for example. And it would be satisfied, in cases like *Playboy*, with estimates of the probability that children would be exposed to signal bleed, rather than demanding that the legislature present a national survey of *actual* exposure to the harm. Thus far, however, the narrow conception of legal “knowledge” has dominated empirical constitutional decision-making. Courts search for constitutional certainties. Not surprisingly, they find very few absolutes lurking in legislative records.

The dominance of the legal paradigm with regard to knowledge acquisition is most apparent where courts purport to test legislative predictions as hypotheses. Knowledge of underlying facts is particularly important, and increasingly difficult to come by, in an age of rapid scientific and technological advance. In this era of science and technology, proactive governance is something of an accepted reality.⁴⁵⁵ Congress and other legislatures can either get out ahead of problems by predicting how the world will look, or miss important opportunities to shape regulatory environments.

Treating proactive enactments as hypotheses which are amenable to determinate empirical *verification* exposes additional problems with an empirical approach to constitutional review of legislation. Requiring that legislatures demonstrate that predictions or causal theories are “correct” as an empirical-legal matter, rather than sufficiently probable as an empirical-scientific matter to permit regulation, is tantamount to demanding the impossible. The question should not be whether the prediction is actually “correct” in some absolute sense, but whether it is sufficiently probable under the

455. As some scholars have noted, proactive legislating is on the rise, particularly in areas involving rapid technological advances, like telecommunications. See Benjamin, *supra* note 286, at 282–83 (citing examples of recent proactive legislation in communications area).

circumstances, taking into account both the deference due to legislative predictions and the inherent uncertainty of the regulatory environment, to permit the desired regulation. As the *Turner* cases demonstrate, probabilities and generalizations are the best courts can hope to discover when they seek to “verify” legislative hypotheses that are based upon predicted events.⁴⁵⁶

Surely it is neither wise nor even possible to test each governmental prediction in this manner. A governmental hypothesis that restricting campaign contributions is necessary to control political corruption cannot be meaningfully tested without reference to how the pre-restriction world looked. Suppose, for example, that there is no present evidence that the harm or evil exists. It is possible that the absence of the evil demonstrates that the governmental prediction is accurate. It is, of course, equally plausible that the harm the government targeted simply never existed. Empiricism cannot tell us anything meaningful about the validity of these legislative hypotheses for the simple reason that we do not know what the regulatory environment would look like absent the regulation.

Even if courts were to receive all of the data they seek with respect to legislative predictions, including that which is created post-enactment, empiricism necessarily will fall short of any absolute certainty. Even with the counter-factual data, causal or correlative claims cannot be meaningfully analyzed without a consideration of data concerning a host of variables that might have some relationship to the predicate. The judicial process has no means of controlling for these disparate variables, and no scientific means of isolating causal factors. For this additional reason, then, the search for absolute “correctness” or “truth” is hopelessly misguided.

In addition to the absence of counter-factual evidence and the absence of methods for isolating causal factors, there is no agreed-upon temporal reference point for testing legislative predictions. When does the government have to be “correct” as an empirical matter—at the time of enactment, or the time of review, or at some other time? Here is one place that the Supreme Court appears to

456. For one thing, there is no counter-factual data by which to test legislative predictions. How can Congress *know* whether broadcast stations will fail without “must-carry” regulations? Congress can make a prediction based upon available evidence, which in rapidly changing environments can be ephemeral. In *Turner* the Court, while touting the virtues of deference, twice tested Congress’s hypothesis, first with reference to the data available when Congress acted, and then again with a “supplemented” record. See *Turner Broad Sys., Inc. v. FCC*, 512 U.S. 622, 665 (1994). Only after this massive empirical undertaking was the Court apparently satisfied that Congress’s prediction was “correct.” The inefficiencies of the Court’s approach are patently apparent.

have adopted the flexibility of the scientific program. By allowing in *Turner II* for the “supplementation” of the record, the Court indicated that the temporal inquiry was flexible enough to sustain a legislative prediction that had little or no empirical support when it was originally made.⁴⁵⁷

The temporal issue is a delicate one for the acquisition of knowledge regarding the scope of legislative powers. If Congress was empirically “correct” initially, can empirical evidence produced a day after enactment invalidate its predicate? Conversely, can subsequently developed and discovered evidence validate a once-false or non-existent predicate? Empiricism raises the rather unsettling possibility that an enactment that is empirically valid one day may be invalid the next.⁴⁵⁸ This may be an acceptable state of affairs for the scientific project, even an invited one, given the scientific focus on the continuous evolution of knowledge. But here is one place where legal certainty is constitutionally significant. The temporal question, at the least, must be finally settled in some fashion if empiricism is to apply to legislative predictions and other predicates.

All of these considerations bring to the fore certain foundational differences between constitutional and scientific knowledge. As the

457. If constitutional empiricism is primarily concerned with identifying “real” harms, the relevant empirical pool would appear to be that which was available to the government when it acted. If the goal is decisional accuracy, however, then it seems that the courts must sift all of the evidence, even that which is created post-enactment. While the path of constitutional empiricism generally seems to suggest a focus on originating harms that are “real” and not speculative, *Turner* at the same time suggests that ultimate empirical verification is pivotal. Again, however, this focus on absolute verification, while well-suited to the law, is fundamentally at odds with scientific notions of the acquisition of knowledge.

458. A hypothetical congressional prohibition on the practice of “reproductive cloning” illustrates the concern. Suppose the law is quickly debated and enacted amidst scientific uncertainty regarding the harm, if any, associated with reproductive cloning, which has yet to be attempted. Congress predicts or theorizes, based on the available evidence, of animal studies for example, that reproductive cloning will cause harm to human beings. Some years later the enactment is challenged on the ground that it violates a fundamental right, say of privacy. Courts will have no basis for assessing the counterfactual, since cloning has not yet been permitted. The government would point to studies of animal cloning to support its predicate. But let us complicate matters. How should the courts proceed if, sometime between enactment and judicial review, cloning is successfully attempted in other countries, and the evidence demonstrates that cloning has no adverse effects on human beings? Conversely, suppose there were in fact no studies when Congress acted, but that a number of *subsequently* conducted studies indicate that cloning strongly correlates with certain diseases and adverse conditions? What is even more likely, suppose the evidence is entirely equivocal? At what point is the truth of the matter to be established?

Daubert Court noted: “There are important differences between the quest for truth in the courtroom and the quest for truth in the laboratory. Scientific conclusions are subject to perpetual revision. Law, on the other hand, must resolve disputes finally and quickly.”⁴⁵⁹ This observation has direct implications for constitutional empiricism, particularly insofar as it seeks to test legislative hypotheses. While constant testing of empirical propositions is an essential virtue of scientific inquiry and growth, constitutional inquiry gains little from mere empirical experiments.

Congress surely does not undertake legislative action as an experiment to test the empirical limits of its powers. “False starts” are common in science, indeed imperative for its functioning. By contrast, constitutional law gains nothing from opinions like *Garrett*, which indicate only that Congress failed to demonstrate a predicate empirically, or *Bartnicki*, which is premised on the failure to prove a negative. It seems apparent that no amount of empirical work would have saved the legislation in either case. In an artificial sense, these legislative predicates have been “falsified” by the Court, but how does that expand our knowledge of constitutional limits?

The foregoing discussion clarifies the limitations of constitutional empiricism as a means to acquiring constitutional knowledge or learning constitutional truths. In many respects, the empirical and legal programs are incompatible. For all of its empirical trappings, constitutional empiricism, at least as it is currently implemented, remains captive to legal filters on evidence, fails to distinguish “good” from “bad” empirical results, and demands unattainable absolute truths. As a method of judicial review, constitutional empiricism focuses on the acquisition of *legal* knowledge, not knowledge about the external world. It causes courts to observe and quantify, at least in some contexts, but ultimately does not depart from the constraining and narrowing influences of the legal process. If it is to serve other than its current formalist agenda, constitutional empiricism must become a great deal *more* scientific.

B. Empirical Constitutional Discourse: Expounding a Constitution

Even if courts could somehow bring the methods and insights of science to bear on constitutional questions, we should ask what effect

459. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 596–97 (1993). Of course, definitive resolution of constitutional claims is only one, not the only, purpose of constitutional law. See generally LOUIS SEIDMAN, *OUR UNSETTLED CONSTITUTION* (2001) (arguing that constitutional decisions purposefully leave matters unsettled, thus permitting litigants to continue pursuing goals).

this approach might have on our constitutional discourse. Putting aside the substantial pragmatic concerns with constitutional truth-seeking, should constitutional adjudication and construction emulate natural inquiry? Where is this particular form of “juriscience” leading constitutional discourse?⁴⁶⁰

Constitutional empiricism is a new phenomenon; its path is not yet determined. But three general observations arise out of what has transpired thus far. The first is that empiricism leaves the impression that certain results are, more or less, beyond judicial control.⁴⁶¹ Thus, an empirical discourse permits courts to claim that empirical standards, rather than conceptualism or normative choices, account for their constitutional decisions. The discourse lacks any explanation for empirical choices; it fails to explain, for example, why a legislative record is insufficient, or how formulas and ratios originate or operate. The second concern is that empiricism, like early Langdellian science, threatens to remove values and conceptions of justice from constitutional discourse. Decisions look more and more *mathematical*, and less and less *constitutional*. The third general observation is that constitutional empiricism threatens to leave constitutional rights and powers at the mercy of empirical demonstrations.⁴⁶²

As to the first general criticism, the ascendance of judicial power is masked with the most superficial empirical discourse. Congress is essentially told that had it only compiled more empirical evidence, its Section 5 enactments would have survived scrutiny. Claimants in discrimination cases are similarly informed that if only their empirical evidence had been more compelling, their rights could have been vindicated. Empiricism, the courts seem to be saying, *demand*ed that we decide against you. But in truth, none of this is in fact outside judicial control. The rejection of legislative expertise, legislative power, and claimants’ rights flows from decisions that have little to do with empirical demonstrations as such. The courts are far from passive empirical observers; they should acknowledge as much.

We have seen evidence that empiricism stunts constitutional discourse, and serves as a pretext for battles that courts are not willing to have in non-empirical terms. Thus, for example, with the

460. The term is from Howard T. Markey, *Juriscience or “Juriscience”?*, 25 WM. & MARY L. REV. 525 (1984).

461. For a similar critique of the Burger Court’s utilization of economics, particularly in Fourth Amendment cases, see Tribe, *Constitutional Calculus*, *supra* note 4, at 599–614.

462. See *id.* at 606–09 (advancing similar critique with regard to search and seizure economics).

aura of a scientific panel, the majority in *Stenberg* carefully examined the medical and scientific evidence regarding the safety of various abortive methods.⁴⁶³ The examination was hardly necessary; unless the State was able to prove that partial birth procedures were *never* required for maternal safety, the majority was going to invalidate the statute. The Court effectively pre-determined that patient and physician autonomy should prevail over state interests in the event of the inevitable empirical stalemate. But, the Court never *explained* that normative choice. As a medical review board, the Court may have been obligated to do no more than pronounce the medical authority to be in conflict, and allow physicians to proceed as they saw fit. As a court, it was required to do more, to provide us with an explanation and a defense of striking the balance this way.⁴⁶⁴

As to the second general criticism, the courts' "fixation on the tangible"⁴⁶⁵ is leading to thinner and thinner constitutional discourse. Laurence Tribe's critique of various Burger Court decisions that were driven by cost-benefit analyses applies with equal force to the Rehnquist Court's empiricism: "The Court's current approach has a tendency to flatten issues, to squeeze the living complexity out of them[.]"⁴⁶⁶ Constitutional truths or realities, if they exist, do not lie about waiting for constitutional scientists to "discover" them. They cannot be divined by technocratic counting and parsing.

In *Atkins*, the appearance is that experiments in state laboratories were conducted, data compiled, and the Court, like a scientist at the bench, reported the results. It all looks sterile, value-free, and "scientific." But to declare the limits of the Eighth Amendment's "cruel and unusual punishments" clause is surely to do more than observe a national test tube and make notations on outputs, directional change, and proportionality. It cheapens constitutional discourse to suggest that less than an eighteen-point swing in legislative outputs determines whether the mentally retarded should live or die at the hands of the State. And where is the explanation in *State Farm* for the rule that where compensatory

463. See *Stenberg v. Carhart*, 530 U.S. 914, 924 (2000).

464. *Roe*, which helped launch the first empirical turn in constitutional law, is subject to this same criticism. The focus on medical evidence ultimately leaves us with the impression that medical expertise determines the scope of constitutional rights, that it is the physician's right to determine the course of care that is most important. That is what can occur when empirical discourse pushes everything else to the side. Some have argued that the Court should have justified the decision not in terms of physician autonomy, but rather in terms of gender equality. See Tribe, *Seven Deadly Sins*, *supra* note 4, at 161.

465. *Id.*

466. *Id.*

damages are “substantial” (a term itself left undefined), a ratio of 1:1 is presumptively valid? By what magic does the Court render the 9:1 ratio? Obviously, important normative constitutional choices are being made about jury discretion. Wholly lacking is any form of “reasoned elaboration” for those choices. There is no mention of the usual factors—constitutional structure, text, history; but more egregious still, there is no explanation at all for how the lines and equations have been drawn and assembled. With constitutional empiricism, too much is left unspeakable.

The Court seems constantly to fear for its own legitimacy. Judicial review seems to be so controversial that courts would rather drape themselves in data than judge the practice of executing the mentally retarded on its merits. Will such executions deter or grant retribution? If not, as it appears, and no other valid reason suggests itself for engaging in this practice, is that not a sufficient reason to pronounce the practice “cruel and unusual,” particularly in light of the condition of the accused? Even if such executions do deter, is there some other moral or ethical reason to reject this practice as unjust and unconstitutional? If there are moral and juridical bases for decision, then the Court should give voice to them. This is not to suggest that legislative outputs ought not be considered. It is, rather, to suggest that life and death should rest as well on considerations of fairness and justice.

Similarly, how can the Establishment Equation tell us which programs invidiously breach the church-state divide? At best, a simple equation can yield only the simplest of answers to undeniably normative questions. There is no hope that any mathematical operation, no matter how complex, can do justice to the historical and normative considerations that give substance to the Establishment Clause. The more courts rely upon data and equations, the less they concern themselves with constitutional history, values, norms, and structure. The more they calculate, it seems, the less they describe and articulate. If values are being enforced and normative choices made, it is better that they should be forthrightly acknowledged than hidden under a pile of cold data or obscured by empiricism’s deceptively simple “new” mathematics.

Rendering “objective” constitutional decisions should not mean that courts count data to the exclusion of all else, that they in effect stop considering broad normative, foundational, and constitutive issues. Surely we want courts to do more in determining the contours of the Constitution than this. Surely there is more to constitutional rights and powers than simple mathematics or surveys. Indeed, one

of the reasons some social scientists have rejected the model of the natural sciences is that the approach sterilizes too much; purely empirical work lacks a “human” element. Constitutional empiricism manifests this same weakness. But at least scientific truths are *supposed* to be free of moral claims and considerations of justice. Indeed, claims to scientific objectivity are premised on the absence of these very things. Constitutional law, at least in what might be considered its “natural” state, is not similarly situated. Constitutional issues cannot be divorced from consideration of broad notions of value and justice.

Once empiricized and naturalized, constitutional discourse, as we have seen, becomes narrowed and limited by the data. We need only read opinions like *McCleskey*, *Zelman*, *Adarand*, *Atkins*, and *State Farm* to realize just how narrow our constitutional discourse has become. Data can contribute to constitutional knowledge. But, they cannot serve as a proxy for constitutional meaning. As an indicator of constitutional meaning, a single page of robust, honest discourse about the constitutional choices and issues at stake is worth more than twenty pages of formulas, ratios, or citations to empirical studies. Empiricism may be comforting to judges, a salve for the indeterminacy of constitutional meaning. But, mere formulas cannot fix meaning. To the extent that there are values that do not “fit” formulas like the Establishment Equation, empiricism narrows and “flattens” constitutional discourse by failing to consider them.

Finally, we should also be concerned that the strength of constitutional rights and powers has become coterminous with the strength of the empirical data that support them.⁴⁶⁷ *Plessy v. Ferguson* was no doubt supported by the social Darwinism of its day. The 113-page “Brandeis Brief” in *Muller* was utilized to demonstrate that women were simply too frail to withstand the rigors of extended work hours. Thus, empiricism seemingly could come to validate all manner of conduct that is presently considered to clash with constitutional norms. Turning *Atkins* around, would we want the Constitution to *permit* execution of the mentally retarded, or juvenile offenders, simply because a handful of state legislatures have moved in that direction? This becomes a more pressing concern as science gains momentum and prestige, as is likely to occur. Would we want governments to use peremptory challenges to exclude jurors based on gender if stronger social science evidence supported our stereotyped

467. See generally Tribe, *Constitutional Calculus*, *supra* note 4, at 599–614 (critiquing the Court’s recent trend of performing cost-benefit analysis in areas of constitutional law).

inclination to believe that men and women think and reason a certain way?⁴⁶⁸ Empiricism may even encourage the notion that evidence tending to demonstrate that sexual orientation is chosen, rather than in some measure biologically determined, should dictate the contours of the equality guarantee.

In sum, detailed consideration of empirical evidence should not be allowed to displace more normative and robust constitutional discourse.⁴⁶⁹ That is precisely the direction in which constitutional empiricism is currently headed. More and more, it is a calculation, rather than a constitution, that is being expounded.⁴⁷⁰ One need not be a supporter of judicial “activism” to support a constitutional discourse that is not centered on empiricism. Neither normative, value-bound nor empirical discourse will ever prove entirely satisfactory. But at least with the former, we may have an honest debate about our constitutional choices. Empiricism may make judges feel better about *their* constitutional choices, but on its current path, it will only weaken constitutional foundations and first principles, which seem already to have been obscured beneath a mountain of data.

CONCLUSION

In order to gain legitimization, objectivity, and neutrality, law has historically sought to emulate scientific and empirical processes. Constitutional law has done so only reluctantly, preferring traditional sources, like text and history, to external indicators of constitutionality. As in other areas, an outward, scientific turn was perhaps inevitable in constitutional interpretation. Constitutional empiricism represents that turn. Empiricism is only the latest judicial effort to decide constitutional issues with reference to neutral principles. Constitutional empiricism borrows liberally from the principles and methods of scientific and empirical inquiry to provide a purportedly neutral dynamic for constitutional adjudication and construction.

Constitutional empiricism boasts the ability to discern “real”

468. See *J.E.B. v. Alabama*, 511 U.S. 127, 140–41 (1994) (invalidating gender classification used during peremptory challenges).

469. See Serena Stier, *Privileging Empiricism in Legal Dialogue: Death and Dangerousness*, 21 U.C. DAVIS L. REV. 271, 273 (1988) (asserting that “[e]mpiricism elevates the values of objectivity and verifiability over the value of justice, which can only be achieved through normative discourse”).

470. See *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819) (noting “we must never forget that it is a *constitution* we are expounding” (emphasis in original)).

legislative predicates and to empirically test legislative hypotheses, theories, and causal claims. It pretends to provide neutral and objective content to normative constitutional concepts like “cruel and unusual punishment” and “due process.” Constitutional empiricism makes these claims because it is based upon a positivist view of scientific and empirical inquiry which accepts the notion of value-free fact-finding and determinate data. This Article has used the debates concerning the objectivity of science to examine and critique these claims to neutrality. Like any empirical endeavor, constitutional empiricism is susceptible to a host of subjective choices that affect not only the collection and categorization of data, but its ultimate interpretation. Empiricism thus cannot function as a set of neutral principles.

Constitutional empiricism has been utilized to draw attention away from a subtle return to the formalism and conceptualism of earlier eras. Although empiricism looks like an earnest attempt to gain knowledge of the external world, in fact it serves as the new face of constitutional formalism. The attention to data is mere pretext for specific conceptualist agendas, an empirical show meant to deflect criticism of judicial aggrandizement and conceptualism in constitutional jurisprudence.

Although empiricism adopts some of the trappings of scientific inquiry, it is a poor process for arriving at scientific or empirical truths about the limits of legislative power and the substance of constitutional rights. Empiricism remains captive to legal conceptions of knowledge and knowledge acquisition. Because it filters evidence, fails to provide standards for separating “good” empirical results from “bad” results, and demands that hypotheses be legally “correct,” empiricism does not advance constitutional knowledge as much as its scientific trappings would predict.

This Article offers some potential solutions to improve upon empiricism’s methods and outcomes. But, the Article also raises some concerns about the notion of empirically determined constitutional rights and powers. Data are crowding out not only the traditional sources of constitutional interpretation, but most other concerns as well. Viewing science and empiricism as having all the power, and all the rationality, portends an imminent conflict between empiricism and larger values in constitutional law. We must decide now how clinical and how empirical constitutional law should be.