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"Normative Constitutional Fact-finding": Exploring the Empirical Component of Constitutional Interpretation

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ARTICLES

"NORMATIVE CONSTITUTIONAL FACT-FINDING": EXPLORING THE EMPIRICAL COMPONENT OF CONSTITUTIONAL INTERPRETATION

DAVID L. FAIGMAN†

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† Associate Professor of Law, University of California, Hastings College of the Law. I would like to thank my many friends and colleagues who graciously read early drafts of this Article and gave me the benefit of their thoughts and comments. I owe particular thanks to David I. Levine, John Monahan, Eileen Scallen, Scott Sundby, and Lois A. Weithorn, who gave generously of their time and ideas. In addition, my research assistants, Deborah Brown, Elizabeth C. Johnsen, and Jordonna Sabih, were truly invaluable and improved the paper considerably by their excellent work.

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INTRODUCTION

All constitutional scholars agree that the text of the Constitution furnishes the starting point for constitutional interpretation;¹ and

¹ See, e.g., Monaghan, *Our Perfect Constitution*, 56 N.Y.U. L. REV. 353, 361 (1981) ("Most commentators agree that analyses grounded either in the constitutional text or in the structure it creates constitute valid modes of reasoning about constitutional 'meaning.'"); Moore, *A Natural Law Theory of Interpretation*, 58 S. CAL. L. REV. 279, 313 (1985) (stating that "in legal interpretation there must be a place for ordinary

most scholars agree that the text alone is rarely enough.² The Constitution's many broad prescriptions must be interpreted in accordance with various external guides.³ Constitutional theorists typically posit four sources which, together with the text, contribute to a "proper" understanding of the Constitution: original intent (history),⁴ constitutional scholarship,⁵ precedent,⁶ and contempo-

meaning [of words]"); Schauer, *An Essay on Constitutional Language*, 29 UCLA L. REV. 797, 797 (1982) (stating that "before we can argue . . . about whether to go outside of the text, we ought to explore the meaning of the words *inside* the text"); see also *Richardson v. Ramirez*, 418 U.S. 24, 55 (1974) (stating that § 2 of the fourteenth amendment "is as much a part of the Amendment as any of the other sections, and how it became a part of the Amendment is less important than what it says and what it means"); *Cohens v. Virginia*, 19 U.S. (6 Wheat.) 264, 380 (1821) (stating that the Constitution is the "authoritative language of the American people").

² See, e.g., Brest, *The Misconceived Quest for the Original Understanding*, 60 B.U.L. REV. 204, 205 (1980) ("The text of the Constitution is authoritative, but many of its provisions are treated as inherently open-textured."); Fallon, *A Constructivist Coherence Theory of Constitutional Interpretation*, 100 HARV. L. REV. 1189, 1244 (1987) ("[W]hile arguments from text occupy the topmost rung of the theoretical hierarchy, it seldom occurs that purely textual arguments unambiguously require a result contrary to that indicated by several other factors.").

³ See generally Fallon, *supra* note 2, at 1244-46 (noting that constitutional interpretation is based upon arguments from the text, historical intent, theory, precedent, and values); Perry, *The Authority of Text, Tradition, and Reason: A Theory of Constitutional Interpretation*, 58 S. CAL. L. REV. 551, 552 (1985) (describing as the bases for interpreting constitutional questions: the text of the Constitution, political morality constitutionalized by the ratifiers of the Constitution, precedent, the values of the political community, and the judge's own values).

⁴ See, e.g., Bork, *Original Intent: The Only Legitimate Basis for Constitutional Decision Making*, JUDGES' J., Summer 1987, at 13, 13 (stating that the judge is bound by "the original intentions of those who framed, proposed, and ratified the Constitution"); Monaghan, *supra* note 1, at 360 (stating that "the original intent is the proper mode of ascertaining constitutional meaning"). But see Brennan, *My Encounters With the Constitution*, JUDGES' J., Summer 1987, at 7, 10 (stating that "the ultimate question must be, what do the words of the text mean in our time?").

⁵ See Fallon, *supra* note 2, at 1200-02; see also A. BICKEL, *THE LEAST DANGEROUS BRANCH: THE SUPREME COURT AT THE BAR OF POLITICS* 36 (2d ed. 1986) [hereinafter A. BICKEL (2d ed. 1986)] (stating that constitutional "construction involves hospitality to large purposes [and policy choices], not merely textual exegesis"); J. CHOPER, *JUDICIAL REVIEW AND THE NATIONAL POLITICAL PROCESS: A FUNCTIONAL RECONSIDERATION OF THE ROLE OF THE SUPREME COURT* 68 (1980) (stating that because the members of the Court do not rely on the political system for maintaining their positions, they are guaranteed of making nonpolitical decisions); J. ELY, *DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW* 56 (1980) ("The constitutional literature that has dominated the past thirty years has often insisted that judges, in seeking constitutional value judgments, should ' . . . follow the ways of the scholar in pursuing the ends of government.'" (quoting A. BICKEL, *THE LEAST DANGEROUS BRANCH* 25-26 (1962))); Wechsler, *Toward Neutral Principles of Constitutional Law*, 73 HARV. L. REV. 1, 16-17 (1959) (maintaining that arguments based on reason and principle supplement as a means of interpreting the Constitution).

⁶ See, e.g., J. STONE, *PRECEDENT AND LAW* 8 (1985) ("Constitutionality issues

rary values.⁷ These sources⁸ provide the authority that guides and restrains constitutional interpretation.⁹ Although unrecognized as such, constitutional fact-finding comprises another, and equally important, source of authority. Constitutional fact-finding has always been an essential part of the interpretive calculus. Indeed, throughout its history, and to this day, the Supreme Court,¹⁰ in practice, equates fact-finding with the traditional sources of authority. The Court fails to distinguish between normative principles and empirical propositions, analyzing empirical research¹¹ as it might arguments about the text or precedent. The

involve . . . the meaning of preceding judicial decisions interpreting the texts."); Landes & Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J.L. & ECON. 249 (1976) ("In a legal system such as ours . . . the published decisions of courts and administrative agencies interpreting and applying the legislative enactments are important sources of the specific rules of law."); Schauer, *Precedent*, 39 STAN. L. REV. 572 (1987) (stating that courts of law appeal to precedent in their decisionmaking).

⁷ See, e.g., Brennan, *The Constitution of the United States: Contemporary Ratification*, 27 S. TEX. L.J. 433, 438 (1986) ("Current Justices read the Constitution in the only way that we can: as twentieth-century Americans."); Brest, *supra* note 2, at 228-34 ("Precedents are modified and even overruled to reflect perceived changes in social needs and values."). See generally Sadurski, *Conventional Morality and Judicial Standards*, 73 VA. L. REV. 339, 351-56 (1987) (describing the use of contemporary morality in judicial review).

⁸ While most scholars agree on these five sources, some define them slightly differently. See, e.g., P. BOBBITT, *CONSTITUTIONAL FATE: THEORY OF THE CONSTITUTION* 7, 94 (1982) (listing six sources for constitutional argument: historical, textual, doctrinal, prudential, structural, and (his own element) ethical).

⁹ Of course, constitutional theorists do not uniformly accept all five sources as legitimate. Many theorists, collectively referred to as "interpretivists," accept only the text and original intent as viable authority for explicating the Constitution's meaning. See, e.g., R. BERGER, *GOVERNMENT BY JUDICIARY: THE TRANSFORMATION OF THE FOURTEENTH AMENDMENT* 407-18 (1977); Bork, *Neutral Principles and Some First Amendment Problems*, 47 IND. L.J. 1 (1971); Rehnquist, *The Notion of a Living Constitution*, 54 TEX. L. REV. 693 (1976). Even these theorists, however, recognize the remaining three sources as playing some role, albeit a mistaken one, in constitutional interpretation. See R. BERGER, *supra*, at 283-99; Bork, *supra*, at 10-12; Rehnquist, *supra*, at 700-06.

¹⁰ This Article focuses on the Supreme Court, rather than lower federal courts or state courts, as a matter of convenience. I would expect to find in those courts interpretive practices that are similar to those attributed to the Supreme Court here. Cf. White, *Fact-Finding and the Death Penalty: The Scope of a Capital Defendant's Right to Jury Trial*, 65 NOTRE DAME L. REV. 1, 5 n.31, 24 (1989) (observing "constitutional fact-finding" in the Court of Appeals for the Ninth Circuit).

¹¹ When available, empirical data inform the Court about factual circumstances. Professor Marvell observes that empirical data includes "scientific, social science, behavioral science, statistical, or other technical information about what happens in the world." T. MARVELL, *APPELLATE COURTS AND LAWYERS: INFORMATION GATHERING IN THE ADVERSARY SYSTEM* 186 (1978). Of course, many other "facts" have constitutional significance other than those categorized here as "empirical." For

Court "interprets" facts, it does not "find" them. In the past, this course served the Court well, for the Justices could surmise constitutional facts¹² on their own at least as well as anybody else could. Increasingly, however, scientists are challenging the Court with empirical data far richer and more accurate than the suppositions that thoughtful reflection can provide.¹³ Science¹⁴ modifies and strengthens the role of fact-finding in constitutional interpretation and actually constitutes a hallmark of constitutional theory, guiding and restraining the Court's constitutional discretion.

Historically, most constitutional fact-finding depended on the Justices' best guess about the matter. In *Gibbons v. Ogden*,¹⁵ for example, Chief Justice Marshall could assert, with little fear of contradiction, that "[a]ll America understands, and has uniformly understood, the word 'commerce,' to comprehend navigation."¹⁶ This factual observation was as much law-making as Marshall's legal conclusion in the same decision that "our constitution [is] one of enumeration, and not of definition."¹⁷ Marshall's assertion about

instance, historical facts have traditionally occupied a large role in constitutional interpretation, being especially relevant to discussions of original intent. For further discussion on my distinction between empirical facts and other kinds of facts, see *infra* note 18.

¹² For discussion of the nature of "constitutional facts," see *infra* notes 18 & 32-47 and accompanying text.

¹³ See Acker, *Social Science in Supreme Court Criminal Cases and Briefs: The Actual and Potential Contribution of Social Scientists as Amici Curiae*, 14 LAW & HUM. BEHAV. 25 (1990).

¹⁴ This Article focuses on the social sciences because they have been the sciences accorded particular attention by the Supreme Court. But the discussion herein applies equally to the Court's use of natural science research, as the discussion of *Roe v. Wade* will make clear. See *infra* notes 123-42 and accompanying text. In fact, I prefer not to distinguish between the natural sciences and the social sciences in regard to their respective relevance to legal decisionmaking. See Faigman, *To Have and Have Not: Assessing the Value of Social Science to Law as Science and Policy*, 38 EMORY L.J. 1005 (1989). At bottom, the value of a statement "as science" depends on its "validity." Similarly, the legal relevance of a social science statement or a natural science statement should also depend on its validity. See *id.* at 1018; *infra* notes 107-15 and accompanying text. "[V]alidity refer[s] to the best available approximation to the truth or falsity of propositions, including propositions about cause." T. COOK & D. CAMPBELL, *QUASI-EXPERIMENTATION: DESIGN & ANALYSIS ISSUES FOR FIELD SETTINGS* 37 (1979). Validity must be contrasted with "reliability," which refers to the ability of a scientific test to obtain consistent results. For example, a reliable thermometer consistently measures air temperature and, if valid, does so accurately. A valid test will always be reliable, but a reliable test will not always be valid. A thermometer always ten degrees too high will be consistently inaccurate—reliable, but invalid.

¹⁵ 22 U.S. (9 Wheat.) 1 (1824).

¹⁶ *Id.* at 190.

¹⁷ *Id.* at 189. This example also serves to illustrate social scientists' typical

America's understanding of the word commerce lent force to his reading of the commerce clause, but was not necessary to his conclusion. Marshall's empirical observation served a rhetorical purpose, being pertinent only insofar as it advanced his interpretive judgment, and empirical evidence to the contrary surely would not have influenced the outcome.

Yet, the Court's casual interweaving of fact and law could continue only so long as its "best guesses" about constitutional facts¹⁸ were as good as, or at least not too far from, everyone else's. After all, if Marshall had been confronted, say, with a valid scientific study showing that America's understanding of commerce was not as broad as he supposed, the legitimacy of his conclusion would have been undermined. The *Gibbons* edifice would not have fallen upon such a showing, but it would have been shaken by the

response to those situations in which the Court raises empirical questions. For instance, if today's Court observed that all America understands "the word 'commerce' to comprehend navigation," social scientists would quickly conduct surveys to test the proposition. But this response would demonstrate social scientists' basic misunderstanding of the Court's method. Often the Court asks empirical questions rhetorically, with no real interest in the answer and with no intent to change its holding whatever the data show. The problem, of course, is how scientists can know when the Court really wants an empirical question answered, and whether they should invest the time and resources answering empirical questions given this uncertainty. These questions are addressed in Section III. See *infra* notes 270-82 and accompanying text.

¹⁸ I use the term "constitutional fact" to refer to those facts identified as being relevant either to the establishment of a constitutional rule or reviewable under an established constitutional rule. For a further discussion of this distinction see *infra* notes 32-47 and accompanying text. My main concern here is constitutional facts discoverable through empirical research. Many constitutional facts will not be amenable to empirical research, because either they are incapable of being tested or they are historical in nature. Marshall's query in *Gibbons* concerning America's understanding of the word "commerce" raises two kinds of factual questions, the first concerning America's past understanding of the term and the second concerning America's present understanding. Marshall's inquiry into America's past understanding of the word is a constitutional fact subject to historical inquiry, while present understanding of the word "commerce" (i.e., at the time Marshall asked the question) constitutes an empirical question. Whereas historical facts are subject to scholarly discovery, empirical facts can be scientifically tested. For instance, social scientists can survey the relevant populations to determine a people's understanding of the word "commerce." This option obviously is not available to historians.

History shares the same essential objective as science: truth. In their quest to attain this objective, both disciplines must navigate the complexity of their subject as well as control for the pervasive value-bias inherent in all human inquiry. For a fuller discussion of the objectivity of science and the distinction between science and nonscience, see Faigman, *supra* note 14. For a discussion of the value of history as a source of "truth" in legal decisionmaking, see Nelson, *History and Neutrality in Constitutional Adjudication*, 72 VA. L. REV. 1237, 1245, 1250-56 (1986).

loss of one of its pillars. Although Marshall may have been spared such scientific challenges to his factual assumptions, the modern Court has been less fortunate. Today's Court struggles often, and often unsuccessfully, to incorporate contemporary science into its constitutional decision-making.

In examining the role of fact-finding in constitutional theory, this Article focuses on the modern Court's use of empirical research in its constitutional law-making. In addition to providing insights into the integration of science and the law, this examination helps illuminate the relationship between fact and value in constitutional interpretation. Constitutional theorists have completely ignored the significance fact-finding plays in establishing the meaning and application of the Constitution.¹⁹ Constitutional cases are replete with instances of factual suppositions supplying the fulcrum for discerning the "proper" understanding of the Constitution, as well as supplying the foundation supporting the soundness and legitimacy of the particular ruling.

Judicial review, as many commentators have observed, irreconcilably conflicts with political democracy.²⁰ An unelected judiciary passing on the validity of laws promulgated by elected representatives is at variance with the basic principles of democracy.²¹ The

¹⁹ Although commentators have ignored the importance of constitutional fact-finding to constitutional interpretation, several commentators have written on the function of fact-finding in constitutional adjudication. See Bikle, *Judicial Determination of Fact Affecting the Constitutional Validity of Legislative Action*, 38 HARV. L. REV. 6 (1924); Karst, *Legislative Facts in Constitutional Litigation*, 1960 SUP. CT. REV. 75; Monaghan, *Constitutional Fact Review*, 85 COLUM. L. REV. 229 (1985); Pine, *Speculation and Reality: The Role of Facts in Judicial Protection of Fundamental Rights*, 136 U. PA. L. REV. 655 (1988); Shaman, *Constitutional Fact: The Perception of Reality by the Supreme Court*, 35 U. FLA. L. REV. 236 (1983); Woolhandler, *Rethinking the Judicial Reception of Legislative Facts*, 41 VAND. L. REV. 111 (1988). These materials treat constitutional fact-finding as separate from interpreting the Constitution. They begin with the assumption that the Constitution's meaning is established (by way of the traditional sources of interpretation) and then contemplate fact-finding using their respective interpretations. I argue that fact-finding is *itself* an element of constitutional interpretation.

²⁰ See J. ELY, *supra* note 5, at 4-5.

²¹ See A. BICKEL (2d ed. 1986), *supra* note 5, at 16; J. CHOPER, *supra* note 5, at 10; J. ELY, *supra* note 5, at 4-5; see also Greenawalt, *The Enduring Significance of Neutral Principles*, 78 COLUM. L. REV. 982, 985 (1978) (revisiting Herbert Wechsler's "neutral principles" thesis and "[a]ddressing the question of how determinations of courts reviewing the actions of other branches of government can have legal quality even though they inevitably involve choices of value"). But see Carter, *The Right Questions in the Creation of Constitutional Meaning*, 66 B.U.L. REV. 71, 72 (1986) ("I am unconvinced that what might be termed *effective* judicial review—the production of judicial decisions that work important changes in society—is necessarily counter-majoritar-

primary quest of modern constitutional theory has been to identify principles to set limits on the judiciary.²² Although no constitutional theorist today questions the legitimacy of judicial review, every theorist's basic objective is to delineate the scope of the Court's counter-majoritarian machinations. Constitutional theorists use the traditional sources of interpretation—the text, original intent, precedent, constitutional scholarship, and contemporary values—to guide and criticize the Court. The Court, too, accepts the need for extra-textual materials, and generally agrees with constitutional theorists on which sources are legitimate.²³ The sources of constitutional interpretation thus provide authority for counter-majoritarian decisions and also serve as restraining principles to check possible counter-majoritarian excesses.

Facts guide and restrain constitutional interpretation in the same way as the other elements of constitutional theory. Brute reality restrains the Court. Historically, however, what could stand for factual knowledge was expansive. Although the issue of whether in 1824, "[a]ll America . . . understood the word 'commerce[]' to comprehend navigation"²⁴ was a factual matter, it was not one known with very much certainty. Thus, facts, despite their capacity to guide constitutional law-making, historically had little true restraining effect on the Court. The Court could, and did, fashion facts as it went along. Modern science, especially social science, has begun to change the posture of fact-finding in constitutional theory. Many constitutional facts are susceptible to "objective" verifica-

ian."); Griffin, *What is Constitutional Theory? The Newer Theory and the Decline of the Learned Tradition*, 62 S. CAL. L. REV. 493, 506-10 (1989) (arguing that much constitutional theory rests on outdated theories of democracy).

²² See Schauer, *Easy Cases*, 58 S. CAL. L. REV. 399, 399 (1985) ("In one way or another, virtually every constitutional theorist deems it primarily important to address the same question: where should we go in search of guiding principles for interpreting the linguistically open-ended clauses of the Constitution." (footnote omitted)). See generally Bork, *Styles in Constitutional Theory*, 26 S. TEX. L.J. 383, 383 (1985) (reviewing constitutional theories that attempt to resolve the dilemma inherent in a system "which allows majorities to rule in wide areas of life simply because they are majorities, but which also holds that individuals have some freedoms that must be exempt from majority control"); Wiseman, *The New Supreme Court Commentators: The Principled, the Political and the Philosophical*, 10 HASTINGS CONST. L.Q. 315, 355-69 (1983) (observing that the greatest challenge for many modern constitutional commentators is to justify the rights and entitlements they would have the court read into the Constitution).

²³ See Faigman, *By What Authority? Reflections on The Constitutionality and Wisdom of the Flag Protection Act of 1989*, 17 HASTINGS CONST. L.Q. 353, 361 n.41 (1990).

²⁴ *Gibbons*, 22 U.S. (9 Wheat.) at 190.

tion;²⁵ and in those cases in which constitutional facts are adequately tested, constitutional fact-finding should, and does, exert a particularly strong restraining influence on the Court. Science restrains the Court by making it accountable for the normative judgments underlying its constitutionally based factual suppositions.

Yet, even a cursory inspection of the Court's constitutional cases demonstrates an uneven use of empirical research.²⁶ Some commentators suggest that the Court's use of science is disingenuous; these critics believe that the Court cites empirical research when it fits the Court's particular needs, but eschews it when it does not.²⁷ Disingenuity, however, is not necessarily the explanation. The principal reason for the Court's inconsistent use of science is that it continues to approach factual questions as a matter of normative legal judgment rather than as a separate inquiry aimed at information gathering. The Court is not being disingenuous in its manipulation of empirical research; rather, it is simply conducting business as usual. Normative constitutional fact-finding, a phrase

²⁵ It is important that I explain briefly what I mean by "objective." I have written at some length elsewhere on this issue, *see* Faigman, *supra* note 14, at 1016-21, and I return to it *infra* notes 107-22 & 289-90 and accompanying text. First of all, I am not a "positivist" (nor am I a "witch" or a "communist"—accusations usually announced in the same tone of voice)—at least to the extent that this term connotes someone who believes that science can discover the one true reality. I use objective not to refer to the identification of an "actual or absolute reality," but instead to refer to the identification of a "verifiable reality." The search for knowledge assumes many forms, and science represents just one sort. Although an infinite number of "logically possible worlds" may exist, as Sir Karl Popper stated, "the system called 'empirical science' is intended to represent only *one* world: the 'real world' or the 'world of our experience.'" K. POPPER, *THE LOGIC OF SCIENTIFIC DISCOVERY* 39 (1959).

²⁶ *See* Appelbaum, *The Empirical Jurisprudence of the United States Supreme Court*, 13 AM. J.L. & MED. 335 (1989); Kerr, *Social Science and the U.S. Supreme Court*, in *THE IMPACT OF SOCIAL PSYCHOLOGY ON PROCEDURAL JUSTICE* 56, 64-65 (M. Kaplan ed. 1986); Lempert, *"Between Cup and Lip": Social Science Influences on Law and Policy*, 10 LAW & POL. 167, 187-91 (1988). The most extensive analysis of the Supreme Court's use of social science is P. ROSEN, *THE SUPREME COURT AND SOCIAL SCIENCE* (1972).

²⁷ *See, e.g.*, Kerr, *supra* note 26, at 64-65 ("A number of scholars of this topic had concluded that social science evidence is only used in an opinion when it bolsters the decision favored by the Justice on other grounds."); *see also* Bersoff, *Psychologists and the Judicial System*, 10 LAW & HUM. BEHAV. 151, 155-56 (1986) ("[T]he relationship between experimental psychologists and the courts is less than perfect. In fact, if that relationship were to be examined by a Freudian, the analyst would no doubt conclude that it is a highly neurotic, conflict-ridden ambivalent affair . . ."); Note, *Sources of Judicial Distrust of Social Science Evidence: A Comparison of Social Science and Jurisprudence*, 64 IND. L.J. 755, 756 (1989) (observing that "[s]ome [legal scholars] comment that even Supreme Court Justices mention social science evidence only when that evidence 'bolsters a decision favored by the Justice on other grounds'" (quoting Kerr, *supra* note 26, at 64-65)).

seemingly a contradiction in terms, has been an inveterate component of the constitutional tradition. But science, properly understood, is not normative, and the Court misconstrues science by treating it so. Nonetheless, even when the Court seems to ignore empirical research, this research often significantly influences the Court's jurisprudence.

This Article is divided into three sections. Section I examines the structure of constitutional facts and contemplates their significance with regard to constitutional meaning. Section I then explores the historical relationship between constitutional fact-finding and constitutional law-making, and examines the ways in which the Court has framed the world to fit its interpretive judgments. A review of several landmark nineteenth and early twentieth century cases indicates the significance of fact-finding as a source of constitutional law. Traditionally, constitutional fact-finding served as a vehicle for the Court to reach normative judgments in interpreting the Constitution. Fact-finding both buttressed and substituted for the traditionally recognized sources of constitutional authority. The Court regularly advanced facts, as it did other authority, to establish the Constitution's meaning and application. In contrast to its use of other authorities, however, the early Court only rarely recognized any need to verify its factual suppositions.

Increasingly, commentators and litigants are checking the modern Court's fact-finding on the basis of empirical research that only sometimes supports, and often contradicts, the Court's "best guesses" about the world. In some cases, the empirical data indicates results contrary to the Justices' normative desires. Section II explores the modern Court's struggle to fit science into the interpretive enterprise. The Court uses empirical evidence in the constitutional arena in essentially four ways: (1) by conforming its conclusions to the available findings; (2) by claiming to follow the import of empirical research, but misapplying the findings in framing its conclusions; (3) by advancing its own conception of the matter, misunderstanding or ignoring valid empirical research or finding the empirical research inconclusive; and (4) by dismissing the importance of the particular fact for its conclusion, relying instead on some other ground or authority. There is much overlap between these categories and, indeed, any attempt to categorize the Court's handling of empirical data is to some extent misleading.²⁸

²⁸ See Appelbaum, *supra* note 26, at 336. Appelbaum also had difficulty classifying

These categories merely represent subcategories of a uniform strategy the Court has adopted toward empirical evidence, what I call normative constitutional fact-finding.

As the first two sections make clear, the Court historically relied, and continues to rely, upon facts to guide its interpretation of the Constitution. The final section explores how facts, especially when supported by empirical data, also restrain the Court's discretion. Compared with the traditional restraining principles, empirical research fares extremely well in the task of curbing constitutional discretion. Section III examines the main objection to this claim—that the Court demonstrates an enormous facility in avoiding inconvenient empirical research—a skill which seemingly belies science's capacity to restrain. But in exercising this talent, the Court is forced to attend to, and is made accountable for, the value judgments underlying its factual jurisprudence.

I. CONSTITUTIONAL LAW AND CONSTITUTIONAL FACT: UNDERSTANDING FACTS IN CONSTITUTIONAL CONSTRUCTION

The principles embodied in the Constitution have always been defined by the empirical contexts enveloping the document's words.²⁹ Facts having constitutional magnitude range widely, from the effect of a railroad licensing requirement on interstate commerce³⁰ to the nature of man.³¹ In the evolutionary development of the Constitution, facts regularly established both the context and the foundation for constitutional law. This section

the Court's handling of empirical research. He observed the following three possible explanations to be found in the cases for the Court's empirical jurisprudence: the Court might have (1) correctly understood the data and either used it or found it deficient; (2) found the data, though valid, not legally sufficient; or (3) misunderstood the data presented. *See id.* These categories roughly correspond to the categories I choose for organizational purposes in Section II.

²⁹ Justice Douglas observed this phenomenon, stating:

Those who have worked long with legal problems know that not all "law" is to be found in books. There is much of it to be found in experience . . . One who reads a statute often needs more than a dictionary if he is to have understanding. He needs insight into the nature of the organism with which the statute deals. The problem is different only in degree when one construes a Constitution written in general terms for an indefinite future.

Douglas, *The Supreme Court and Its Case Load*, 45 CORNELL L.Q. 401, 413 (1960).

³⁰ *See* *Smith v. Alabama*, 124 U.S. 465 (1888).

³¹ *See, e.g., Furman v. Georgia*, 408 U.S. 238, 308 (1972) (per curiam) (Stewart, J., concurring) ("The instinct for retribution is part of the nature of man, and channeling that instinct in the administration of criminal justice serves an important purpose in promoting the stability of a society governed by law.").

examines first the *types* of facts in constitutional adjudication and describes their interrelationship. Next, this Section surveys the Court's use of fact-finding to shape the constitutional landscape in several early cases.

A. *The Configuration of Constitutional Facts*

In a landmark article, Professor Kenneth Culp Davis identified two basic kinds of facts having evidentiary significance, legislative facts and adjudicative facts.³² According to Davis, legislative facts are those facts that transcend the particular dispute and have relevance to legal reasoning and the fashioning of legal rules.³³ Judges are responsible for deciding questions of legislative fact. Adjudicative facts, on the other hand, are those facts particular to the dispute.³⁴ Adjudicative facts are within the province of the trier of fact (the jury or, if there is no jury, the judge) to decide.³⁵

³² See Davis, *An Approach to Problems of Evidence in the Administrative Process*, 55 HARV. L. REV. 364, 402-03 (1942).

³³ See FED. R. EVID. 201(a) advisory committee's note ("Legislative facts . . . are those which have relevance to legal reasoning and the lawmaking process, whether in the formulation of a legal principle or ruling by a judge or court or in the enactment of a legislative body.").

³⁴ See *id.*; see also Davis, *supra* note 32, at 402 (noting that the rules of evidence for finding facts which form the basis for creation of law and policy should differ from the rules for finding facts specific to parties in a particular case).

³⁵ Professors John Monahan and Laurens Walker recently expanded upon the Davis dichotomy by adding a third category which they call "social frameworks." See Walker & Monahan, *Social Frameworks: A New Use of Social Science in Law*, 73 VA. L. REV. 559, 563-70 (1987). The term "social framework" refers to the use of general conclusions from social science research in determining factual issues in specific cases. See *id.* at 570. A social framework consists of facts which in part transcend the particular dispute and in part pertain to that dispute. For example, a doctor might be called upon to testify that cigarette smoking has been linked to lung cancer and also be asked to testify that the plaintiff's lung cancer was caused by smoking cigarettes. The former fact is like Davis's legislative facts and the latter is akin to his adjudicative facts. Monahan and Walker argue that the judge should decide and instruct the trier of fact regarding facts that transcend the litigation, and the jury should hear evidence on the facts peculiar to the dispute. See *id.* at 592-96.

The social framework concept principally has evidentiary significance and would fall within the constitutional-adjudicative category of the present analysis. See *infra* note 36 and accompanying text. The Monahan and Walker thesis initiates a significant debate over the role of the judge versus that of the jury in finding adjudicative facts. Monahan and Walker would give the judge responsibility for finding all facts that transcend the litigation, whether legislative or adjudicative. In contrast, under both Davis's dichotomy and traditional rules of evidence, adjudicative facts of general import are determined by the jury. In the constitutional context, the gravity of this debate is magnified, a complication that will have to be left for another time.

Davis's dichotomy roughly represents the kind of fact-finding that takes place in constitutional adjudication. His legislative fact category, however, can be further refined in this context into two subcategories, "constitutional-rule" facts and "constitutional-review" facts. *Constitutional-rule facts* are advanced to substantiate a particular interpretation of the Constitution. Constitutional-rule facts join the traditional sources of authority—the text, original intent, precedent, constitutional scholarship, and contemporary values—in establishing the *meaning* of the Constitution. It is at this level, in interpreting the mandates of the Constitution's words, that the traditional sources of interpretation have been thought to operate exclusively. In actuality, fact-finding serves a similar function, as authority supporting the Court's construction of the text. *Constitutional-review facts*, on the other hand, embody the more generally recognized function of legislative fact-finding in constitutional cases. Courts examine constitutional-review facts under the pertinent constitutional rule in order to determine the constitutionality of the state's action. Finally, constitutional cases oftentimes involve adjudicative facts—facts peculiar to the dispute and which must be examined under the pertinent constitutional rule.³⁶

An early case illustrating the two types of legislative fact-finding in constitutional interpretation is *McCulloch v. Maryland*,³⁷ in which the Court, among other things, upheld Congress's power to incorporate a national bank under the necessary and proper clause of article I. *McCulloch* illustrates clearly how the Court employs both constitutional-rule facts and constitutional-review facts when reading the Constitution. Maryland had claimed that the word "necessary" in the necessary and proper clause restricted the government's power to those actions that were "indispensable" or "absolutely necessary" to executing the powers granted under article I.³⁸ Marshall held that the clause did not limit Congress to only "the most direct and simple" means to achieve legitimate ends.³⁹ Rather, he reasoned, "[t]o employ the means necessary to an end, is *generally understood* as employing any means calculated to produce

³⁶ The classic modern example of constitutional-adjudicative facts can be found in the obscenity cases. Under the *Miller* test, juries determine whether particular materials are patently offensive or appeal to the prurient interest under local community standards. See *Miller v. California*, 413 U.S. 15, 24 (1973).

³⁷ 17 U.S. (4 Wheat.) 316 (1819).

³⁸ See *id.* at 367, 412-13.

³⁹ See *id.* at 413.

the end, and not as being confined to those single means, without which the end would be entirely unattainable."⁴⁰

After his interpretation in *McCulloch* that the necessary and proper clause contemplated "any means calculated to produce [a legitimate] end,"⁴¹ Marshall still had to review the relevant facts to determine whether the government's incorporation of the national bank passed muster. Upon such review, Marshall concluded that the bank incorporated by the government was an appropriate means by which to pursue the legitimate ends enumerated in article I.⁴² Marshall did not explain how he reached this conclusion. He might be said to have provided his "best guess" about the facts in the absence of sufficient evidence to demonstrate otherwise.⁴³ More likely, Marshall "interpreted" the facts as part and parcel of his blanket interpretation of the Constitution.

The significance of fact-finding to the process of constitutional interpretation has two aspects. First, although the Court regularly appeals to real world circumstances in shaping the constitutional design,⁴⁴ the Court readily maneuvers between the levels of constitutional fact in crafting its opinions. In *McCulloch*, for instance, Marshall's interpretation of the necessary and proper clause cannot be separated from his conclusion that the bank was an appropriate means by which to pursue the legitimate ends of article I. The pertinent constitutional-rule fact (the general understanding of "necessary") together with the pertinent constitutional-review fact (that the national bank was an appropriate means to a legitimate end) formed the final result. This synergy makes all three types of constitutional fact-finding relevant to constitutional interpreta-

⁴⁰ *Id.* at 413-14 (emphasis added). Marshall's appeal to the "general understanding" of the word "necessary" parallels the rhetorical form of *Gibbons v. Ogden* in which Marshall observed that "[a]ll America understands . . . 'commerce,' to comprehend navigation," discussed *supra* notes 15-18 and accompanying text.

⁴¹ *McCulloch*, 17 U.S. (4 Wheat.) at 413-14.

⁴² See *id.* at 424.

⁴³ See J. Monahan & L. Walker, Empirical Questions Without Empirical Answers 19 (Aug. 1, 1990) (unpublished draft) (on file with author).

⁴⁴ As Bikle notes:

[N]o court can undertake to decide upon the validity of legislation by a mere comparison of its provisions with those of the applicable constitution, but it must first be informed as to the truth of some question of fact which the statute postulates or with reference to which it is to be applied . . .

Bikle, *supra* note 19, at 6; see also Karst, *supra* note 19, at 75 ("Whatever a judge's persuasion, he can decide a particular constitutional issue only by appraising the factual basis for governmental action.").

tion.⁴⁵ Doubt cast on one level of constitutional fact can always be compensated for by altering the analysis on another level. This maneuverability has historically provided much interpretive flexibility.

The second, and related, character of fact-finding in constitutional interpretation follows from the mutual dependence of facts and law in constitutional analysis.⁴⁶ Advancing factual suppositions can mean avoiding difficult legal judgments. Like the connection between Ishmael and Queequeg when tied to the monkey rope in *Moby Dick*, fact and law are wedded.⁴⁷ The actions

⁴⁵ Constitutional-adjudicative facts also are part of this synergy. See *infra* notes 242-68 and accompanying text (discussing the Court's transformation of the constitutional query in *McCleskey v. Kemp* from concern over constitutional-review facts to concern over constitutional-adjudicative facts).

⁴⁶ The close connection between law and fact has frustrated many writers seeking to distinguish between the two for purposes of allocating responsibility for legal decision-making. For example, Professor Dickinson observed:

In truth, the distinction between "questions of law" and "questions of fact" really gives little help in determining how far the courts will review; and for the good reason that there is no fixed distinction. They are not two mutually exclusive *kinds* of questions, based upon a difference of subject-matter. Matters of law grow downward into roots of fact, and matters of fact reach upward, without a break, into matters of law.

J. DICKINSON, ADMINISTRATIVE JUSTICE AND THE SUPREMACY OF LAW IN THE UNITED STATES 55 (1927).

In this Article, the complication of allocating the power of decision-making is put to one side. In general, when construing the Constitution, judges decide all pertinent matters of law and fact (i.e., legislative fact), and thus the allocative issue is not directly raised. Still, because constitutional-adjudicative facts are also implicated in the Court's strategy of normative constitutional fact-finding, the question of allocating these constitutional facts can not be ignored. See *infra* notes 242-68 and accompanying text. See generally Monaghan, *supra* note 19, at 232-34 (noting that the distinction between questions of fact and questions of law often leads to confusion in judicial opinions).

⁴⁷ As Ishmael chronicled in *Moby Dick*, "In the tumultuous business of cutting-in and attending to a whale," the harpooner must often "remain on the whale till the whole flensing or stripping operation is concluded." H. MELVILLE, *MOBY DICK* 270 (W.W. Norton & Co. ed. 1967). During this perilous task, Queequeg, the harpooner, is tied to Ishmael, who is standing on the boat, by what is "called in the fishery a monkey rope." *Id.* Every action of Ishmael's affects Queequeg; they are inextricably linked. Ishmael describes the situation:

It was a humorously perilous business for both of us. For . . . the monkey-rope was fast at both ends; fast to Queequeg's broad canvas belt, and fast to my narrow leather one. So that for better or for worse, we two, for the time, were wedded; and should poor Queequeg sink to rise no more, then both usage and honor demanded, that instead of cutting the cord, it should drag me down in his wake. So, then, an elongated Siamese ligature united us. Queequeg was my own inseparable twin brother; nor could I any way get rid of the dangerous liabilities which the hempen bond entailed.

taken on account of one inevitably touch the other. The ligature uniting fact and law ultimately explains the former's influence on constitutional meaning. In the following sections this connection is explored, first as it existed in the past, and second how it continues today.

B. *Fact-finding in Historical Perspective*

This section surveys several landmark nineteenth and early twentieth century cases in order to illustrate the centrality of fact-finding to understanding the Constitution's words. In these cases, facts were not *found* to exist separately from the rhetorical arguments supporting the outcome. Rather, facts were interwoven into the constitutional fabric together with the traditional authorities of interpretation. To be sure, the verisimilitude of constitutional facts could not be ignored, but the value of fact-finding lay not in accuracy but rather in persuasiveness. Fact-finding was one more form of constitutional argument, used to shape and justify certain outcomes.

1. *Marbury v. Madison*

The integral role fact-finding plays in ascertaining constitutional principles can be traced at least to *Marbury v. Madison*,⁴⁸ the progenitor of judicial review, and thus, the basis for the Court's modern normative responsibilities. The *Marbury* Court interpreted the Constitution to mandate judicial review of legislative acts and, indeed, believed that a different conclusion generated an untenable paradox. According to Chief Justice John Marshall, the Constitution forms "the fundamental and paramount law of the nation."⁴⁹ It follows that "[i]t is a proposition too plain to be contested, that the constitution controls any legislative act repugnant to it."⁵⁰ It was equally plain that the judiciary must be the ultimate arbiter of what the Constitution says, for without judicial review the legislature could "alter the constitution by an ordinary act."⁵¹ Marshall explained:

Id. at 270-71.

⁴⁸ 5 U.S. (1 Cranch) 137 (1803).

⁴⁹ *Id.* at 177.

⁵⁰ *Id.*

⁵¹ *Id.*

The powers of the legislature are defined, and limited; and that those limits may not be mistaken, or forgotten, the constitution is written. To what purpose are powers limited, and to what purpose is that limitation committed to writing, if these limits may, at any time, be passed by those intended to be restrained? The distinction, between a government with limited and unlimited powers, is abolished, if those limits do not confine the persons on whom they are imposed, and if acts prohibited and acts allowed, are of equal obligation.⁵²

Judicial review rests, in large part, on a factual assumption. Chief Justice Marshall implicitly assumed that legislators, though they swear to discharge their duties pursuant to the Constitution, would not always remain faithful to that pledge, or at least not as faithful as judges.⁵³ Since at that time no other constitutional democracy in the world employed a system of judicial review of legislative acts,⁵⁴ this assumption may be questioned.⁵⁵

Even if legislators are not capable of fully upholding their oath of office, what is the constitutional relevance of this observation? The import of this observation ostensibly arises out of Marshall's interpretation of the Constitution. But does the structure of the Constitution mandate judicial review, as is demonstrated by the fact that the legislature cannot be expected to restrain itself, or does the

⁵² *Id.* at 176-77.

⁵³ Professor Fallon describes Marshall's assumption regarding the legislature's behavior as "structural" and does not mention the empirical basis for the decision. See Fallon, *supra* note 2, at 1201 n.48. To be sure, *Marbury* raises structural questions involving the relationship between the legislative and judicial branches. Still, the resolution of this structural query requires certain empirical assumptions, as discussed in the text.

⁵⁴ Mauro Cappelletti observes that "judicial review as a working method of subordinating state action to higher principles was first effectively implemented in the United States." M. CAPPELLETTI, *JUDICIAL REVIEW IN THE CONTEMPORARY WORLD* 25 (1971) Cappelletti traces back to Athenian times the notion of a fundamental law taking precedence over ordinary law. Despite subsequent Western philosophies espousing a fundamental or higher law, however, the choice of who should interpret that law varied considerably. See *id.* at 28-43. Although often endorsed in theory, judges were not officially given that power until the rebellious American colonies used it to force colonial laws to conform to English Parliamentary legislation. See *id.* at 40. When the American revolution removed Parliament's authority and, later, substituted the Constitution, the position of judges was institutionalized as well. See *id.* at 41.

⁵⁵ A legal system without judicial review is not difficult to envision. In England today, judges do not have the authority to set aside acts of Parliament. See A. MELONE & G. MACE, *JUDICIAL REVIEW AND AMERICAN DEMOCRACY* 113 (1988). A researcher interested in the validity of the factual assumption in *Marbury* might very well consider a comparative study of the American and English legal systems.

fact that the legislature cannot restrain itself mandate a constitutional structure containing judicial review? If it had been, or could be, conclusively demonstrated that the legislature is more capable than the judiciary at saying "what the law is," would the Constitution still mandate judicial review?⁵⁶ Simply asking this question illustrates the interrelationship between fact-finding and interpretation in constitutional adjudication.

The function of fact in *Marbury* brings to mind the proverbial chicken and egg riddle. The supposed fact that legislators can not restrain themselves under a written Constitution has relevance only because Marshall read the Constitution so as to raise the empirical issue. At the same time, Marshall probably would not have read the Constitution as raising this empirical issue if he had not already anticipated the answer. Did the principle establish the relevance of the fact or did the fact establish the principle? Marshall, it appears, found the fact normatively and used it rhetorically in the same way he used other external authority.⁵⁷

It is perhaps heretical to intimate that facts sometimes *establish* the meaning of the Constitution. But facts qua facts never compel a certain conclusion; the asserted facts, together with the other authority explicitly or implicitly relied upon, were combined in *Marbury* to establish the constitutional principle of judicial review. The "correctness" of *Marbury* depends on the correctness of the various premises of Marshall's argument, including the factual supposition regarding legislators' self-discipline. The only true test of the facts' import can come if the facts change, or they are demonstrated to be different than the Court supposed.⁵⁸

⁵⁶ I do not mean to suggest that this question is susceptible to certain proof. Rarely will any question the Court posits be amenable to such proof, and some questions are more amenable to research than others. Nonetheless, social science might still provide some useful insights toward determining the validity of the supposition advanced in *Marbury*.

⁵⁷ See, e.g., *Marbury*, 5 U.S. (1 Cranch) at 177 ("Certainly all those who have framed written constitutions contemplate them as forming the fundamental and paramount law of the nation, and consequently the theory of every such government must be, that an act of the legislature, repugnant to the constitution, is void.").

⁵⁸ This is a theme more directly pursued *infra* notes 291-309 and accompanying text.

2. *Lochner v. New York* and *Muller v. Oregon*

Resort to external development of the constitutional context inevitably raises the spectre of *Lochner v. New York*⁵⁹ and the less than salutary school of thought known as "substantive due process." Indeed, *Lochner* presents an important example of the interplay between fact and law in constitutional interpretation. Justice Peckham, writing for the Court, invalidated a New York law restricting the number of hours bakers could work on the ground that the statute violated the parties' liberty of contract. Peckham concluded that "[i]t is manifest to us that the [New York law] . . . has no such direct relation to and no such substantial effect upon the health of the employ, as to justify us in regarding the section as really a health law."⁶⁰ The Court found liberty to contract to be protected by the fourteenth amendment⁶¹ and, upon considering the pertinent constitutional-review facts, was not convinced that the state had amply demonstrated the relationship between a baker's hours and public health.⁶² The Court's review of the relationship existing between the New York law and the health of bakers was necessitated by its reading of the fourteenth amendment. Using contemporary terminology, the Court applied heightened scrutiny to a statute which implicated a protected right.⁶³ If no such right had been identified, the Court would have had little occasion to review the nexus between the New York law and public health. At bottom, the Court's mistake, to the extent it made one, was in

⁵⁹ 198 U.S. 45 (1905).

⁶⁰ *Id.* at 64. In responding to a related argument of the state that the statute furthered public health, the Court stated:

It was further urged . . . that restricting the hours of labor in the case of bakers was valid because it tended to cleanliness on the part of the workers, as a man was more apt to be cleanly when not overworked In our judgment it is not possible in fact to discover the connection between the number of hours a baker may work in the bakery and the healthful quality of the bread made by the workman.

Id. at 62.

⁶¹ *See id.* at 53.

⁶² *See id.*

⁶³ *See id.* at 57-58. The *Lochner* opinion does not make clear whether the New York statute failed a "rational basis" or a "compelling interest" review. Under present-day standards it is clear that the Court either applied a rational basis test incorrectly or applied heightened scrutiny to the law. Whichever is the case, the Court substantively reviewed the validity of the statute, a practice for which it has been criticized ever since.

identifying the right of liberty of contract in the fourteenth amendment.

In finding a constitutionally protected right to contract, the Court was guided by its view of the nature of society, specifically, its belief in the equality of bargaining power between employer and employee. Justice Peckham was clear on the point:

We do not believe in the soundness of the views which uphold this law. On the contrary, we think that such a law as this, although passed in the assumed exercise of the police power, and as relating to the public health, or the health of the employés named, is not within that power, and is invalid. The act is . . . an illegal interference with the rights of individuals, both employers and employés, to make contracts regarding labor upon such terms as they may think best, or which they may agree upon with the other parties to such contracts. Statutes of the nature of that under review, limiting the hours in which grown and intelligent men may labor to earn their living, are mere meddlesome interferences with the rights of the individual . . .⁶⁴

The constitutional rule protecting liberty of contract found in the fourteenth amendment thus stems from Peckham's understanding of the factual circumstances surrounding the bargaining between employer and employee. And under heightened scrutiny, the constitutional-review facts failed to pass muster.

Lochner stands in apparent contrast to *Muller v. Oregon*,⁶⁵ the case generally associated with the onset of sociological jurisprudence⁶⁶ and, ironically, a case considered an exception to the early twentieth century Court's substantive due process jurisprudence.⁶⁷ In *Muller*, the Court sustained against due process attack an Oregon statute regulating the employment of women "in any mechanical establishment, or factory, or laundry"⁶⁸ for more than ten hours in any one day. The Court ostensibly relied on the "factual" brief submitted by Louis D. Brandeis which purportedly demonstrated "the inherent difference between the two sexes."⁶⁹ Contrary to

⁶⁴ *Id.* at 61.

⁶⁵ 208 U.S. 412 (1908).

⁶⁶ See J. MONAHAN & L. WALKER, *SOCIAL SCIENCE IN LAW: CASES AND MATERIALS* 8-9 (2d ed. 1990).

⁶⁷ The irony of viewing *Muller* as an exception to the practice of substantive due process lies in the Court's resort to the extra-judicial authority of the Brandeis Brief to defer to the legislature's judgment. Today, applying the rational basis test, the Court would not perceive any need to advance social science authority to support this conclusion.

⁶⁸ *Muller*, 208 U.S. at 416.

⁶⁹ *Id.* at 423. See generally Doro, *The Brandeis Brief*, 11 VAND. L. REV. 783 (1958)

Lochner, then, the state in *Muller* apparently satisfied its burden by introducing sufficient constitutional-review facts to demonstrate a significant state interest.

But *Lochner* and *Muller* cannot be reconciled simply on the basis that in the latter the state met its burden, but in the former it did not. *Lochner* and *Muller* are consistent in that they embrace a similar theory of human relations, a theory made explicit in *Lochner* but left unstated in *Muller*. This theory, generally associated with Social Darwinism as popularized in the works of Herbert Spencer,⁷⁰ dictated that freedom of contract was to be protected against legislative intrusion except in certain categories of cases.⁷¹

The *Muller* Court used the Brandeis Brief to uphold the statute because the Court was already predisposed to that conclusion on the basis of its factual suppositions regarding the proper interpretation of the fourteenth amendment,⁷² rather than upon any review of the state's factual showing in the case before it. *Muller* illustrates the ease by which the Court can maneuver between constitutional-rule facts and constitutional-review facts with a particular outcome in mind. This attribute permits much jurisprudential flexibility. The absence of a Brandeis Brief in *Muller* probably would not have

(heralding Brandeis's reliance on factual data as the start of a tradition of contextualism, viewing legislation in the context of social conditions).

⁷⁰ See H. SPENCER, *THE MAN VERSUS THE STATE* (1892) [hereinafter H. SPENCER, *THE MAN VERSUS THE STATE*]; H. SPENCER, *SOCIAL STATICS* (R. Schalkenbach ed. 1954) (1850) [hereinafter H. SPENCER, *SOCIAL STATICS*].

⁷¹ Professor Tribe explains the point as follows:

[L]egislatures could properly enact statutes which protected the interests of certain discrete groups, such as children and women, both treated by the dominant legal ideology as unable to protect themselves. . . . But equalization or redistribution of economic or social power, which "takes property from A., and gives it to B.," was an impermissible end of legislation.

L. TRIBE, *AMERICAN CONSTITUTIONAL LAW* 571-72 (2d ed. 1988) (footnote omitted).

⁷² Spencer's empiricism can hardly be deemed scientific and, indeed, is a fine example of what I term "suppositional science." See *infra* note 110. Spencer's theory is itself an admixture of fact and fancy and thus may be said to be only marginally a matter of "fact-finding," as that term is used here. Nonetheless, at bottom, Spencer's theory as employed by the Court in *Lochner* and *Muller* was "fact-based," especially to the extent that the theory has a Darwinian component. See, e.g., H. SPENCER, *THE MAN VERSUS THE STATE*, *supra* note 70, at 202 ("[F]or the healthful activity and due proportioning of those industries . . . which maintain and aid the life of a society, there must . . . be few restrictions on men's liberties to make agreements with one another, and there must . . . be an enforcement of the agreements which they do make."); H. SPENCER, *SOCIAL STATICS*, *supra* note 70, at 55-56 ("Man exhibits just the same adaptability [as plants and animals]. . . . That such changes are towards fitness for surrounding circumstances no one can question.").

changed the result, nor would the presence of one have affected the *Lochner* result.⁷³ Both the *Muller* and *Lochner* Courts construed the fourteenth amendment against the backdrop of a social reality embraced by some at the time.⁷⁴ Justice Oliver Wendell Holmes, in his *Lochner* dissent, captured the essence of the Court's method in his customarily succinct fashion:

This case is decided upon an economic theory which a large part of the country does not entertain. If it were a question whether I agreed with that theory, I should desire to study it further and long before making up my mind. But I do not conceive that to be my duty, because I strongly believe that my agreement or disagreement has nothing to do with the right of a majority to embody their opinions in law. . . . The Fourteenth Amendment does not enact Mr. Herbert Spencer's Social Statics.⁷⁵

By rejecting the majority's constitutionalization of Spencer's worldview, Holmes also rejected the substantive incorporation of liberty of contract into the fourteenth amendment. Although history has come to share Holmes's conclusion, some commentators nonetheless continue to find the right of liberty of contract in the Constitution without subscribing to Spencerian views.⁷⁶ Informed

⁷³ Justice Harlan, dissenting in *Lochner*, argued foremost that "[w]hether or not this be wise legislation it is not the province of the court to inquire." 198 U.S. at 69 (Harlan, J., dissenting). But, he asserted, once "this inquiry is entered upon I find it impossible, in view of common experience, to say that there is here no real or substantial relation between the means employed by the State and the end sought to be accomplished by its legislation." *Id.* Although the parties did not introduce a "Brandeis Brief" to support such "common experience," Harlan cited and quoted at length from empirical evidence purportedly demonstrating the dangerous conditions present in bakeries. *See id.* at 70-71. Harlan, much as Brandeis would later do in *Muller*, marshalled contemporary social science opinion and statistical reports to make his case. This tactic was successful in *Muller* but not in *Lochner*.

⁷⁴ Perhaps the most infamous example of this judicial myopia is *Plessy v. Ferguson*, 163 U.S. 537 (1896), in which the Court found that the doctrine of "separate but equal" provided blacks with the full and equal enjoyment of public facilities. It is doubtful that the Court truly believed this factual statement. The conditions of inequality were too pervasive for the Court to miss. Rather, what guided the Court's hand were beliefs about other "facts" more firmly held, specifically, the then-prevalent "scientific" view doubting the wisdom of integration. *See* Hovenkamp, *Social Science and Segregation Before Brown*, 1985 DUKE L.J. 624. The *Plessy* Court's interpretation of the fourteenth amendment depended as much on its assumptions about the nature of blacks and their "place" in contemporary society as on the legislative history of that amendment.

⁷⁵ *Lochner*, 198 U.S. at 75 (Holmes, J., dissenting).

⁷⁶ *See* Epstein, *Toward a Revitalization of the Contract Clause*, 51 U. CHI. L. REV. 703 (1984); Kmiec & McGinnis, *The Contract Clause: A Return to the Original Understanding*, 14 HASTINGS CONST. L.Q. 525 (1987). For a good critique of efforts to raise

by a new vision of economics, generally associated with the University of Chicago,⁷⁷ these commentators read the contract clause broadly,⁷⁸ urging either a "strict constructionist" interpretation of the clause⁷⁹ or "a return to the original understanding."⁸⁰

Whereas the *Lochner* Court read the Constitution by the flame of the Spencerian lamp, modern commentators can reach the same result by the incandescence of the Chicago-school lamp. The *Lochner* Court's embrace of Spencer, therefore, was not necessary to support the weight of its conclusion, though, to be sure, at the time it served that seemingly important purpose.

Justice Holmes's *Lochner* dissent imploring the Court to set aside its personal views in order to effectuate the proper interpretation of the Constitution also can be challenged as a product of his particular beliefs about human relations. Holmes, as perhaps the first legal realist,⁸¹ openly embraced a fact-based jurisprudence as indicated by his often-quoted statement: "The life of the law has not been logic: it has been experience."⁸² That Holmes discounted the relevance of Herbert Spencer to deciding *Lochner* belies the importance of extra-constitutional considerations to his conclusion. The social milieu continually shaped Holmes's constitutional jurisprudence.⁸³ Holmes himself believed that all "rules of law presuppose a certain state of facts to which they are applicable."⁸⁴ In fact, it has been argued that Holmes's *Lochner* dissent was shaped by his own particular brand of Social Darwinism.⁸⁵ Holmes's

Lochner from the grave, see Phillips, *Another Look at Economic Substantive Due Process*, 1987 WIS. L. REV. 265, 267 (concluding that "the costs of reviving economic substantive due process still outweigh its benefits by a good margin").

⁷⁷ See generally R. POSNER, *ECONOMIC ANALYSIS OF LAW* (3d ed. 1986).

⁷⁸ The contract clause provides in pertinent part that "No State shall . . . pass any . . . Law impairing the Obligation of Contracts" U.S. CONST., art. I, § 10, cl. 1.

⁷⁹ See Epstein, *supra* note 76, at 728-29.

⁸⁰ Kmiec & McGinnis, *supra* note 76, at 526.

⁸¹ See, e.g., White, *From Sociological Jurisprudence to Realism: Jurisprudence and Social Change in Early Twentieth-Century America*, 58 VA. L. REV. 999, 1003-04 (1972) (discussing Holmes's criticism in *Lochner* of the judicial tendency to announce general social propositions as truths, in ignorance of empirical proof).

⁸² O.W. HOLMES, *THE COMMON LAW* 1 (1881).

⁸³ See Holmes, *Privilege, Malice, and Intent*, 8 HARV. L. REV. 1, 9 (1894) ("[Law] has become a conscious reaction upon itself of organized society knowingly seeking to determine its own destinies."); see also T. MARVELL, *supra* note 11, at 150.

⁸⁴ Holmes, *Book Notices*, 7 AM. L. REV. 318 (1873).

⁸⁵ See generally Rogat, *The Judge as Spectator*, 31 U. CHI. L. REV. 213, 251 (1964) (describing Holmes as a staunch adherent to Darwinian doctrines). Reflective of Holmes's view is the following: "[I]f the will of the majority is unmistakable, and the majority is strong enough to have a clear power to enforce its will, and intends to do

advancement of the constitutional principle of judicial deference to legislatures depended as much on his sociological and psychological assumptions as any rationale he found in the text of the Constitution.⁸⁶

C. Conclusion

The Court's early history illustrates that fact-finding must comprise a necessary and integral part of constitutional interpretation. Even when identifying what the Constitution says, facts arise as part of the calculus. Moreover, once the meaning of the Constitution has been established, factual questions abound in applying these abstract principles to actual cases or controversies. The early Court approached interpretation and fact-finding interchangeably so that the values embodied by the Constitution and the Court's factual understanding would combine to support a particular result. In expounding the Constitution's mandates, the Court identified and described the facts supporting the desired outcome. Constitutional facts were only roughly based on empirical reality; they existed in a nether world, somewhere within the Constitution itself. As long as the Court was the only one in the

so, the courts must yield . . . because the foundation of sovereignty is power, real or supposed." Holmes, *Book Notices*, 6 AM. L. REV. 132, 141 (1871).

⁸⁶The most infamous example of Holmes's factual jurisprudence comes from his opinion in *Buck v. Bell*, in which the Court upheld a Virginia statute mandating in certain cases "the sterilization of mental defectives." *Buck v. Bell*, 274 U.S. 200, 205 (1927), *overruled*, *Skinner v. Oklahoma*, 316 U.S. 535 (1942). Although the holding coincides with Holmes's long-standing philosophy of deferring to legislatures, the opinion clearly embraces the core of the scientific theory of eugenics upon which the legislation was based. See Dudziak, *Oliver Wendell Holmes as a Eugenic Reformer: Rhetoric in the Writing of Constitutional Law*, 71 IOWA L. REV. 833, 836 (1986). Holmes's own words make the point:

In view of the general declarations of the legislature and the specific findings of the Court, obviously we cannot say as matter of law that the grounds do not exist, and if they exist they justify the result. We have seen more than once that the public welfare may call upon the best citizens for their lives. It would be strange if it could not call upon those who already sap the strength of the State for these lesser sacrifices, often not felt to be such by those concerned, in order to prevent our being swamped with incompetence. It is better for all the world, if instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind. The principle that sustains compulsory vaccination is broad enough to cover cutting the Fallopian tubes. Three generations of imbeciles are enough.

Bell, 274 U.S. at 207 (citation omitted).

business of finding these facts, this style of interpretation could continue.

Today, many researchers challenge the Court's constitutional fact-finding. The Court continues to view constitutional facts normatively, casually interweaving the values the Constitution embodies with the facts as the Court defines them. This practice, however, has come into conflict with the increasingly precise techniques of empirical inquiry. The next section examines how the Court has responded to the researchers' challenge.

II. CONSTITUTIONAL FACT AND SCIENTIFIC FACT: WHETHER THE TWAIN SHALL MEET⁸⁷

Facts continue to be central to the modern Court's⁸⁸ explication of the Constitution, and the Court also continues to shape the facts to fit its judgments. Increasingly, however, scientists have begun to challenge the Court's vision of reality and thus the respective constitutional principles attached to that vision. The Justices have employed various strategies to cope with empirical data, both when the data support a holding and when they do not. Their responses range from open reliance on research to open disdain for it. Whatever its response to the data in a particular case, however, the modern Court has closely adhered to the tradition of normative constitutional fact-finding.

A. *When the Court Heeds Empirical Research*

Occasionally, the Court fashions its constitutional decisions in accordance with the contemporary consensus of scientific opinion. The two cases which best exemplify this practice are also the cases which have led the Court to avoid it. By far the most notorious use of social science in constitutional law is footnote 11 of *Brown v. Board of Education*,⁸⁹ and the most notorious use of biological

⁸⁷ The phrase is Rudyard Kipling's: "Oh, East is East, and West is West, and never the twain shall meet." Kipling, *The Ballad of East and West*, in COLLECTED VERSES OF RUDYARD KIPLING 136 (1915).

⁸⁸ I concur with Professor Perry who fixes "the modern period of American constitutional law to be the period since *Brown v. Board of Education*." Perry, *supra* note 3, at 552-53 n.5. Conveniently, *Brown* also marks the modern era of the Court's explicit use of social science in constitutional law. See *infra* note 92 and accompanying text.

⁸⁹ 347 U.S. 483 (1954).

science in constitutional law is *Roe v. Wade*.⁹⁰ In both cases, the Court seemingly crafted its opinions in light of scientific consensus, and in both instances the Court lost credibility in doing so.

1. *Brown v. Board of Education*

In *Brown v. Board of Education* the Court cited a series of studies conducted by Dr. Kenneth Clark and others to support its finding that segregation of blacks "generates a feeling of inferiority as to their status in the community that may affect their hearts and minds in a way unlikely ever to be undone."⁹¹ The *Brown* Court's apparent reliance on social science, applauded by some as marking the inception of the modern era of cooperation between social science and law,⁹² has been criticized by others who fear the consequences of such interdisciplinary cooperation.⁹³ Still others question how much impact the research had on the Court's decision.⁹⁴ In retrospect, it seems clear that the studies were not necessary to the holding and indeed, at the time, Chief Justice Earl Warren is reputed to have responded to the controversy surrounding the citation to the studies by saying, "It was only a note, after all."⁹⁵

⁹⁰ 410 U.S. 113 (1973).

⁹¹ *Brown*, 347 U.S. at 494.

⁹² See, e.g., P. ROSEN, *supra* note 26, at 157 ("The Court's use of social science in the *Brown* case confirmed the success of efforts . . . to have constitutional law propounded in the light of reliable extra legal data rather than of arbitrary judicial biases."). See generally Monahan & Walker, *Social Authority: Obtaining, Evaluating, and Establishing Social Science in Law*, 134 U. PA. L. REV. 477, 483-84 (1986) (noting the *Brown* Court's acceptance of empirical research as fact).

⁹³ See e.g., Berger, *Desegregation, Law, and Social Science*, 23 COMMENTARY 471, 476 (1957) ("[W]e may reach a point where we shall be entitled to equality under law *only* when we can show that inequality has been or would be harmful."); Cahn, *Jurisprudence*, 30 N.Y.U. L. REV. 150, 157-58 (1955) ("I would not have the constitutional rights of Negroes—or of other Americans—rest on any such flimsy foundation as some of the scientific demonstrations in these records."); O'Brien, *Of Judicial Myths, Motivations and Justifications: A Postscript on Social Science and the Law*, 64 JUDICATURE 285, 289 (1981) (arguing that constitutional standards should not rest on the most recent public opinion survey).

⁹⁴ See, e.g., Bork, *supra* note 9, at 13. Bork asserts:

It has long been obvious that [*Brown*] does not rest upon the grounds advanced in Chief Justice Warren's opinion, the specially harmful effects of enforced school segregation upon black children. That much . . . is made plain by the per curiam decisions that followed outlawing segregated public beaches, public golf courses and the like.

Id.

⁹⁵ R. KLUGER, *SIMPLE JUSTICE* 706 (1976).

The question presented, therefore, is why did the *Brown* Court believe it helpful to rely on social science in *any* measure, rather than the "bedrock of a coherent constitutional principle"?⁹⁶ The simple explanation, it would seem, is that the equal protection clause, as interpreted by the Court, raises an empirical question. The Court understood the fourteenth amendment as presenting the question of whether "segregation of children in public schools solely on the basis of race . . . deprive[s] the children of the minority group of equal educational opportunities."⁹⁷ Relevant to this inquiry was the "feeling of inferiority"⁹⁸ segregation instilled and the detrimental effects engendered by segregation. These are empirical questions and, however obvious the answers might seem today, social science was pertinent to the inquiry. But this "simple explanation" still does not reveal why the Court read the fourteenth amendment as raising an empirical question in the first place.⁹⁹

A less simple and more intriguing explanation for why the Court relied on social science rather than "the bedrock of a coherent constitutional principle" comes from recognition of the difficulty in choosing which constitutional principle to rely upon. Many commentators have offered alternative bases for deciding *Brown* the way the Warren Court did, but few agree on any single basis.¹⁰⁰ Of the five traditional principles of constitutional adjudication, none squarely supports the decision and several indicate a contrary result. The text of the fourteenth amendment is, at best, ambiguous

⁹⁶ Doyle, *Can Social Science Data Be Used in Judicial Decisionmaking?*, 6 J.L. & EDUC. 13, 18 (1977) ("We would pose a greater danger to our 200 year experience in constitutional interpretation if we were to rest constitutional interpretation on social science data rather than on the bedrock of a coherent constitutional principle.").

⁹⁷ *Brown*, 347 U.S. at 493.

⁹⁸ *Id.* at 494.

⁹⁹ Another explanation, that the empirical question had been raised in the Court's precedent, is discussed *infra* notes 116-21 and accompanying text.

¹⁰⁰ See, e.g., R. DWORKIN, *LAW'S EMPIRE* 381-92 (1986). Dworkin's theory on *Brown* is outlined *infra* note 121. Virtually all constitutional theorists deem it necessary to provide a plausible account of *Brown*. See, e.g., J. ELY, *supra* note 5, at 32-33 (advancing the ninth amendment as the appropriate repository for the rights vindicated in *Brown*); Bork, *supra* note 9, at 14-15 (arguing that the fourteenth amendment "was intended to enforce a core idea of black equality against governmental discrimination," which, if applied neutrally, would outlaw public school segregation); Brest, *supra* note 2, at 232-33 ("The main issue facing the Court was whether policies of federalism made it inapposite to impose on one government constraints that the Constitution placed on the other."); Wechsler, *supra* note 5, at 33 ("[*Brown*] rested on the view that racial segregation is, in principle, a denial of equality to the minority against whom it is directed.").

on the matter,¹⁰¹ and the *Brown* result appears contrary to the framers' original intent.¹⁰² Although the pertinent precedent evidences a slow movement toward the *Brown* result,¹⁰³ *Plessy v. Ferguson*¹⁰⁴ remained the law in 1954. Moreover, at the time, constitutional scholarship divided on the proper outcome,¹⁰⁵ and contemporary values in 1954 did not wholly support the decision.¹⁰⁶ Given the shortcomings of the traditional supporting principles, the Court not surprisingly embraced the venerable interpretive principle of constitutional fact-finding to support its ruling.

Professor Ronald Dworkin argues that despite the empirical nature of the questions raised in *Brown*, the empirical studies were irrelevant to answering these questions. Beginning with a premise from another commentator, Professor Dworkin argues:

"We don't need evidence for the proposition that segregation is an insult to the Black community—we *know* it; we know it the way we know that a cold causes snuffles." It is not that we don't *need* to

¹⁰¹ See R. BERGER, *supra* note 9, at 99-116.

¹⁰² See *id.* at 117-33; A. BICKEL, 2d ed. 1986), *supra* note 5, at 58-59.

¹⁰³ See, e.g., *Sweatt v. Painter*, 339 U.S. 629 (1950) (holding that the equal protection clause requires admission of black students to the University of Texas Law School when such education is not otherwise available to them as provided by the state); *McLaurin v. Oklahoma State Regents*, 339 U.S. 637, 642 (1950) ("Appellant, having been admitted to a state-supported graduate school, must receive the same treatment at the hands of the state as students of other races.").

¹⁰⁴ 163 U.S. 537 (1896), *overruled by*, *Brown v. Board of Educ.*, 347 U.S. 483 (1954).

¹⁰⁵ See R. BERGER, *supra* note 9, at 117-33. Compare Note, *Is Racial Segregation Consistent with Equal Protection of the Laws?* *Plessy v. Ferguson Reexamined*, 49 COLUM. L. REV. 629 (1949) (arguing that segregation violated the fourteenth amendment's guarantee of equal protection) and Note, *Segregation in Public Schools—A Violation of "Equal Protection of the Laws,"* 56 YALE L.J. 1059 (1947) (same) with Crawford, *Segregation Without Discrimination*, 11 GA. B.J. 81 (1948) (arguing that segregation was not violative of the equal protection clause of the fourteenth amendment) and Harris, *The Fourteenth Amendment*, 10 GA. B.J. 346 (1948) (same) and Note, *Racial Segregation and the Separate But Equal Doctrine*, 26 NOTRE DAME L. REV. 81 (1950) (same).

¹⁰⁶ A Gallup poll conducted shortly after the decision found that nationwide only 54 percent of the respondents supported the *Brown* result. GALLUP REPORT NO. 185, at 25 (Feb. 1981). Not surprisingly, approval percentages were far lower among whites in the South (16 percent) and, perhaps more surprisingly, about the same among southern blacks (53 percent). See *id.* See generally Murphy, *Can Public Schools Be "Private"?*, 7 ALA. L. REV. 48 (1954) (examining the constitutionality of various proposed measures intended to circumvent *Brown*); Note, *Segregation in Education*, 34 B.U.L. REV. 463, 475-78 (1954) (summarizing early reactions to *Brown* throughout the United States); Note, *Implementation of Desegregation by the Lower Courts*, 71 HARV. L. REV. 486 (1958) (assessing the difficulties and delays likely to be experienced by plaintiffs seeking enforcement of *Brown* in lower courts).

know it nor that there isn't something there to know. There is a fact of the matter, namely that segregation is an insult, but we need no evidence for that fact—we just know it. *It's an interpretive fact.*¹⁰⁷

Dworkin's use of the term "interpretive fact" apparently encapsulates two separate arguments. First, Dworkin believes that the social sciences are not sufficiently valid to support constitutional rulings.¹⁰⁸ I have responded to this contention in a previous article.¹⁰⁹ Suffice it to say, here, that I agree that very often social science research is not valid (what I call "suppositional science");¹¹⁰ sometimes, however, social science research is valid, in theory it can be valid, and even when it has not been scientifically demonstrated to be valid, it is not wholly without relevance. A related and more important aspect of Dworkin's contention is that even assuming some validity for the available data, important constitutional matters should not rest on factual bases alone.¹¹¹

Dworkin posits a legal theory he calls "creative" or "constructive" interpretation, analogizing the legal-interpretive process to writing the latest chapter of a chain novel.¹¹² The interpreter fits her interpretations into the prior chapters and, at the same time, extends the overall work in the "best possible" direction.¹¹³ The theory contemplates first that the interpreter identify the "fit" between the interpretive history and the practice being interpreted and, second, that the interpreter impose a "purpose on an object or

¹⁰⁷ Dworkin, *Social Sciences and Constitutional Rights—The Consequences of Uncertainty*, 6 J.L. & EDUC. 3, 5 (1977) (quoting Cahn, *supra* note 93, at 157-68) (emphasis added).

¹⁰⁸ See *id.* ("While in physics it is now thought to be an unsound judgment that rests merely on correlation between observable events unsupported by some notion of the mechanics that translate the cause to the effect, social science is only able to provide correlations without the mechanics.").

¹⁰⁹ See Faigman, *supra* note 14, at 1010-11.

¹¹⁰ *Id.* at 1052. The term "suppositional science"

refers to two types of 'findings' advanced by social researchers: first, those that on their face are untestable or have not been tested in any fashion whatsoever; and second, those that assume the veneer of science (i.e., are forwarded as fully tested propositions) but have yet to be tested adequately.

Id.

¹¹¹ See Dworkin, *supra* note 107, at 4-5, 12 (distinguishing between causal facts and interpretive facts and arguing that only the latter are properly a part of constitutional decision-making).

¹¹² See Dworkin, *Law as Interpretation*, 60 TEX. L. REV. 527, 540-46 (1982). For an analysis of the chain novel metaphor, see Fish, *Working on the Chain Gang: Interpretation in Law and Literature*, 60 TEX. L. REV. 551 (1982).

¹¹³ See Dworkin, *supra* note 112, at 541-42.

practice in order to make of it the best possible example of the form or genre to which it is taken to belong."¹¹⁴ The difficulty for the present discussion lies in understanding the role for science in this legal-interpretive discourse. Dworkin distinguishes scientific interpretation from legal interpretation, for in the former the data can be said to "speak to" the scientist only metaphorically, and it is not helpful to impose a purpose onto the data.¹¹⁵ Still, when incorporating scientific interpretations into legal interpretations the proper fit must be ascertained and the value component inherent in the idea of purpose returns to the equation. But how should scientific interpretation be combined with legal interpretation? Unfortunately, Dworkin has not written specifically on this problem.

There is no necessary fallacy in using data responsive to an empirical question whose relevance depends on its "fit" with the practice being interpreted and which comports with a legal conclusion that "make[s] of it the best possible example of the form or genre to which it is taken to belong." In *Brown*, for example, the issue of segregation's effects had been an integral component of the preceding interpretive tradition. In *Plessy v. Ferguson*,¹¹⁶ for instance, the Court assumed that the "separate but equal" doctrine provided blacks with the full and equal enjoyment of public facilities¹¹⁷ and, further, that any feelings of inferiority resulted "solely because the colored race chooses to put that construction upon it."¹¹⁸ Hence, the research cited in *Brown* "fit" into the interpretive tradition of querying the effects of segregation. Moreover, extending this tradition in the "best possible" fashion should involve taking into account the best available research illuminating the pertinent facts.¹¹⁹ As Dworkin admits, there is

¹¹⁴ R. DWORKIN, *supra* note 100, at 52.

¹¹⁵ *See id.* at 51.

¹¹⁶ 163 U.S. 537 (1896), *overruled*, *Brown v. Board of Educ.*, 347 U.S. 483 (1954).

¹¹⁷ *See id.* at 544.

¹¹⁸ *Id.* at 551.

¹¹⁹ Substantial questions abound concerning the validity of the research reported in *Brown*, with most commentators agreeing that it suffered from significant methodological and interpretive flaws. *See* Cook, *Social Science and School Desegregation: Did We Mislead the Supreme Court?*, 5 PERSONALITY & SOC. PSYCHOLOGY BULL. 420 (1979); Gerard, *School Desegregation: The Social Science Role*, 38 AM. PSYCHOLOGIST 869 (1983); van den Haag, *Social Science Testimony in the Desegregation Cases—A Reply to Professor Kenneth Clark*, 6 VILL. L. REV. 69, 77 (1960). Still, the relevance of the factual inquiry must be kept distinct from the availability of valid data to answer the inquiry. Neither the lack of data nor the availability of data should affect the relevance of some fact to constitutional analysis.

a fact of the matter.¹²⁰ Whether that fact has interpretive significance is a separate issue.¹²¹

Some of the confusion here might arise out of the meaning of the word "fact." We may *know*, as Dworkin argues we should know "interpretively," "that a cold causes snuffles." But surely, if the "interpretive" judgment is accurate, valid scientific studies should corroborate that judgment.¹²² Science is not irrelevant for dem-

¹²⁰ See *supra* text accompanying note 107.

¹²¹ In the final analysis, Dworkin does not believe that black children's self-esteem is relevant to the proper interpretation of *Brown* at all. Dworkin provides his approach to deciding *Brown* in *Law's Empire*, see R. DWORKIN, *supra* note 100, through the voice of the omniscient Justice Hercules. Hercules "constructs three accounts of a right against racial discrimination." *Id.* at 382. The first principle, "suspect classifications," contemplates that distinctions according to race that work to the disadvantage of the respective group "be viewed with special suspicion." *Id.* at 383. But under this principle, the state could demonstrate circumstances that justify the discrimination. See *id.* The second principle, "banned categories," maintains that the Constitution recognizes a right that "certain properties or categories . . . not be used to distinguish groups of citizens for different treatment." *Id.* at 384. "A racially segregated school system is, on this account, unconstitutional under all circumstances." *Id.* The third principle, "banned sources," "insists that preferences that are rooted in some form of prejudice against one group can never count in favor of a policy that includes the disadvantage of that group." *Id.* Hercules rejects the first account, "suspect classifications," as inconsistent with modern conceptions of fairness. See *id.* at 387. He finds that the second and third accounts come to the same result (i.e., they both "condemn officially sponsored racial segregation in schools"), and, thus, he does not have to choose one over the other. See *id.* at 388. Hercules concludes:

The plaintiff schoolchildren are being cheated of what their Constitution, properly interpreted, defines as independent and equal standing in the republic; this is an insult that must be recognized and removed. . . . Racially segregated public schools do not treat black schoolchildren as equals under any competent interpretation of the rights the Fourteenth Amendment deploys in the name of racial equality, and official segregation is therefore unconstitutional.

Id. at 389.

¹²² My "faith" in the possibility or utility of scientific corroboration of Dworkin's interpretive facts will be challenged in some quarters. Recently, a classic debate has resurfaced over the objectiveness of social science research. At one pole of this debate stand some adherents of critical legal studies who assert the wholly subjective character of all knowledge. See M. KELMAN, *A GUIDE TO CRITICAL LEGAL STUDIES* 64-65 (1987); R. RORTY, *CONTINGENCY, IRONY AND SOLIDARITY* (1989). A related, and for present purposes equivalent, view is the hermeneutic tradition which rejects any extension of the natural science model of general empirical laws to the realm of human behavior. See J. HABERMAS, *KNOWLEDGE AND HUMAN INTERESTS* 148 (1971). On the opposite pole might be the "positivists" who entertain the notion that some absolute reality can be identified empirically, be it natural or social. (No cite is available because no one these days claims to be, or admits to being, a positivist. See R. MILLER, *FACT AND METHOD: EXPLANATION, CONFIRMATION AND REALITY IN THE NATURAL AND THE SOCIAL SCIENCES* 3 (1987)). Most commentators fall somewhere

onstrating what everyone believes to be the case, though courts might wish to relegate studies corroborating the relationship between a cold and snuffles to a footnote. And, to our surprise, it might turn out that some malady only *associated* with colds causes snuffles, and that we were wrong the whole time. Certainly researchers should not be discouraged from looking into the question on the basis that we know it to be true because we know it to be true.

Knowledge of reality, as a principle of constitutional interpretation, does not create the difficulties Dworkin identifies. Indeed, it is impossible to conceive of constitutional interpretation without a factual component. Interpretive facts are facts permeated with values only because the Court does not expend sufficient energy separating one from the other. The tension created by scientific fact-finding arises out of languid development of the other principles of interpretation. The Court relies on "interpretive facts," instead of "real facts," because the Court is not otherwise interpreting very well.

between these two extremes and accept some role for empirical research in legal discourse. The debate involves the extent to which social researchers' value orientations and individual perspectives color their data as well as the conclusions they draw from their data. Closer to the positivist pole are those who embrace some form of traditional empiricism, those who, like myself, might be labeled scientific realists. See, e.g., Faigman, *supra* note 14, at 1014 n.22 (identifying "scientific realism" as the epistemological foundation for many of the views expressed in the Article); Monahan & Walker, *supra* note 92, at 498-99 (articulating a framework in which courts can assess both the validity and relevance of empirical research). Closer to the hermeneutic tradition are those who advance what they call a "critical empiricism." See, e.g., Trubek, *Where the Action Is: Critical Legal Studies and Empiricism*, 36 STAN. L. REV. 575 (1984) (calling for the adoption of a "critical empiricism" in legal scholarship); Trubek & Esser, "Critical Empiricism" in *American Legal Studies: Paradox, Program, or Pandora's Box?*, 14 LAW & SOC. INQUIRY 3 (1989) (defining, analyzing, and explaining "critical empiricism"). Interestingly, Trubek and Esser refer to critical empiricism as marking the "beginnings of a new 'interpretive' paradigm for law and society [research]." Esser & Trubek, *From "Scientism Without Determinism" to "Interpretation Without Politics": A Reply to Sarat, Harrington and Yngvesson*, 15 LAW & SOC. INQUIRY 171, 171 (1990) (emphasis added). As this Article seeks to demonstrate, much of the Court's empirical jurisprudence might be said to be in accord with Trubek's interpretive paradigm. See Trubek, *supra*, at 603-04. The Justices, however, would probably object to being characterized as "critical empiricists" or, for that matter, the alternative description of the "hermeneutic Supreme Court." I return to the issue of the objectiveness of science *infra* text accompanying notes 287-89.

2. *Roe v. Wade*

A seemingly notable exception to the phenomenon of normative constitutional fact-finding is *Roe v. Wade*,¹²³ in which Justice Blackmun constructed the constitutional framework for a woman's fundamental right to choose an abortion free of state interference "in the light of present medical knowledge."¹²⁴ Blackmun asserted that "the state's 'compelling' interest in the health of the mother begins at the end of the first trimester. He explained: "This is so because of the now-established medical fact [that] until the end of the first trimester mortality in abortion may be less than mortality in normal childbirth."¹²⁵ Blackmun ruled further that "[w]ith respect to the State's important and legitimate interest in potential life, the 'compelling' point is at viability."¹²⁶ He explained: "This is so because the fetus then presumably has the capability of meaningful life outside the mother's womb."¹²⁷ Medical science, therefore, delineates the two junctures during a pregnancy—at the time mortality in abortion is no longer less than mortality at childbirth and at viability—when the state's compelling interests arise. The *Roe* Court's reliance upon modern science was met with vehement criticism, wholly separate from the criticism directed at the value choices driving the majority's opinion.¹²⁸

Critics complain that attaching constitutional meaning to scientific opinion, even when scientists are in consensus, condemns the Constitution to fluctuations in meaning as scientific knowledge changes.¹²⁹ The principal proponent of this view has been Justice Sandra Day O'Connor. In *Akron v. Akron Center for Reproductive Health*,¹³⁰ Justice O'Connor warned that, due to recent advances in medicine, linking the constitutional framework in *Roe* to medical technology has set it "on a collision course with itself."¹³¹ Since

¹²³ 410 U.S. 113 (1973).

¹²⁴ *Id.* at 163.

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ See Ely, *The Wages of Crying Wolf: A Comment on Roe v. Wade*, 82 YALE L.J. 920, 941 (1973) (criticizing the Court's holding that abortion is a fundamental right entitled to strict scrutiny review); Epstein, *Substantive Due Process by Any Other Name: The Abortion Cases*, 1973 SUP. CT. REV. 159, 184-85 (same).

¹²⁹ See generally Rhoden, *Trimesters and Technology: Revamping Roe v. Wade*, 95 YALE L.J. 639, 648-55 (1986) (arguing that the Court should abandon the trimester analysis).

¹³⁰ 462 U.S. 416 (1983).

¹³¹ *Id.* at 458 (O'Connor, J., dissenting).

Roe, abortion has become safer than childbirth through approximately week sixteen, and the time of viability has become progressively earlier with advancing technology.¹³² Yet, the *Akron* Court rejected the suggestion that changes in technology mandate postponement of the state's interest in maternal health from the twelfth week to the sixteenth week, as long as first trimester abortions remain safer than second trimester abortions.¹³³ In contrast, the Court in *Webster v. Reproductive Health Services*¹³⁴ heeded the changing technological landscape in ruling that the state could require viability assessments prior to the third trimester. Moreover, the *Webster* Court derided the constant judicial backing and filling necessitated by the adoption of the trimester framework, calling this area of the law "a virtual Procrustean bed."¹³⁵

Yet, Blackmun's error in *Roe* does not come from attaching the fundamental right of choice to empirical fact, but rather from failing to sufficiently articulate the constitutional principles underlying that right.¹³⁶ Blackmun never explained *why* the Constitution mandates the use of a scientific standard.¹³⁷ Blackmun affixed the state's compelling interest in maternal health at the point in time when abortion was safer than childbirth. In 1973 this time was conveniently at the end of the first trimester. If this principle were constitutionally mandated then, as abortion becomes safer, the state's interest should be postponed accordingly. Similarly, if viability is the constitutionally mandated instant when the state's interest in potential life comes into being, then as

¹³² See Brief of the American Medical Association et. al. as *Amici Curiae* in Support of Appellees, at 5, 10, *Webster v. Reproductive Health Servs.*, 109 S. Ct. 3040 (1989) (No. 88-605). Contrary to Justice O'Connor's observation, however, advancing medical technology probably will never result in the total collapse of the trimester scheme, because the onset of viability is not expected to advance much beyond the present 23-24 weeks. See *id.* at 5-8.

¹³³ See *Akron*, 462 U.S. at 429 n.11.

¹³⁴ 109 S. Ct. 3040, 3057 (1989).

¹³⁵ *Id.* at 3056.

¹³⁶ See Tribe, *Seven Deadly Sins of Straining the Constitution Through a Pseudo-Scientific Sieve*, 36 HASTINGS L.J. 155, 168-69 (1984). Professor Tribe argues that science should not be relied upon in constitutional law-making because it tends to "flatten issues, to squeeze the living complexity out of them." *Id.* at 161. Using science, however, does not inevitably render justices blind to the normative principles at stake. True, the Court has used science as though this were the case. But valid science should not be eschewed because it has been mishandled. The challenge is to use science to clarify, not substitute for, the difficult normative issues at stake. See *infra* notes 270-309 and accompanying text.

¹³⁷ See Tribe, *supra* note 136, at 168-69.

viability occurs earlier, the state's interest should advance accordingly.

But the Court has skirted the issue of what constitutional values are implicated in this area. In regard to the constitutional relevance of viability, for example, Blackmun stated: "With respect to the State's important and legitimate interest in potential life, the 'compelling' point is at viability. This is so because the fetus then presumably has the capability of meaningful life outside the mother's womb."¹³⁸ As John Hart Ely pointed out, this argument "seems to mistake a definition for a syllogism."¹³⁹ The juncture of viability does not have independent constitutional significance, at least insofar as it lacks an explicit constitutional value to support it. Certainly viability, as well as the risks associated with abortion that establish the constitutional relevance of the first trimester, are the sorts of interests necessary to any constitutional calculation establishing the woman's rights against the state's interests. These interests, however, are not the only ones at stake and, as the Court's subsequent jurisprudence makes plain, every time these factors fluctuate the Court must recalculate the equation. Using the trimester framework, the Court finesses the perhaps intractable problem of expounding the many conflicting principles and value choices comprising the fundamental right of privacy in the abortion context. Medical science simply serves as a convenient proxy for this task.¹⁴⁰

The error undermining the trimester framework, as well as the shallowness of the Court's constitutional-scientific jurisprudence, can be seen clearly in *Akron*, in which the Court refused to abandon the scheme even when the facts demonstrated its continuing inapplicability. The change in the statistics of maternal health indicating the greater safety of the abortion procedure compared to childbirth through week sixteen did not prompt a corresponding change in the onset of the state's interest. The Court insisted that the "trimester standard . . . continues to provide a reasonable *legal*

¹³⁸ *Roe*, 410 U.S. at 163.

¹³⁹ Ely, *supra* note 128, at 924.

¹⁴⁰ See Rhoden, *supra* note 129, at 643. Rhoden notes:

The abortion framework in *Roe* had . . . important underpinnings that were not articulated explicitly—mainly, the assumption that a viable fetus was one that was substantially developed and had reached 'late' gestation, and the ethical precept that late in gestation a fetus is so like a baby that elective abortion can be forbidden.

Id.

framework for limiting a State's authority to regulate abortions."¹⁴¹ With one stroke of the pen, the Court turned the trimester framework, a framework whose original cogency rested on a scientific basis, into a rule whose cogency rests on a still unarticulated normative basis. The Court thus changed what were empirically testable facts into constitutionally mandated value judgments. Ironically, the dissenters in *Webster*, proponents of the continuing use of the trimester framework, criticized the plurality for failing to engage in a "great issues" debate over the right of privacy in the abortion context.¹⁴² But the entire Court has so far failed to engage in such a debate, and as the structure of the Court's scientific whitewashing breaks down, this becomes more clearly evident.

The Court's transformation of the trimester framework from a factual matter into a legal imperative clearly illustrates its general approach to scientific research. But *Roe* was extraordinary in many respects, primarily in that the Court originally applied the scientific evidence correctly. Not until subsequent cases, together with subsequent technology, began splitting the trimester framework at the seams did the Court abandon science for more familiar ground. A principal error in *Roe* rests in Blackmun's failure to realize that the technological premises of the rule would change over time. Not all science should prove so unreliable as a basis for constitutional decision-making. Nonetheless, even in areas in which science might be expected to remain stable, the Court has failed to change course

¹⁴¹ *Akron*, 462 U.S. at 429 n.11 (emphasis added); see also *Schall v. Martin*, 467 U.S. 253, 278-79 (1984). In *Schall*, Justice Rehnquist noted the argument "that it is virtually impossible to predict future criminal conduct with any degree of accuracy," but, nonetheless, argued:

Our cases indicate . . . that from a legal point of view there is nothing inherently unattainable about a prediction of future criminal conduct. Such a judgment forms an important element in many decisions, and we have specifically rejected the contention, based on the same sort of sociological data relied upon by appellees and the District Court, "that it is impossible to predict future behavior and that the question is so vague as to be meaningless."

Id. (emphasis added and footnote omitted) (quoting *Jurek v. Texas*, 428 U.S. 262, 274 (1976)); see also *infra* notes 161-70 and accompanying text (discussing Justice White's similar inability in *Barefoot v. Estelle*, 463 U.S. 880 (1983), to accept data indicating the invalidity of predictions of dangerousness, because of contrary precedent).

¹⁴² *Webster*, 109 S. Ct. at 3072 n.7 (Blackmun, J., dissenting); see also *id.* at 3057-58 (answering the dissenters by asserting that it is appropriate to challenge the *Roe* constitutional framework without engaging in a debate over the existence of a "fundamental right" to an abortion).

in light of new scientific knowledge. Very often, the Court simply integrates new but conflicting findings into its former interpretations, ironing out any wrinkles by ignoring or misapplying the ill-fitting scientific data. The next section explores a case in which the Court ostensibly followed scientific findings, but, in actuality, misapplied the research in order to support the desired outcome.

B. *When the Court Misapplies Empirical Research: Ballew v. Georgia*

The Court's use of scientific evidence in constitutional law cannot be assessed without considering Justice Blackmun's contributions to the subject.¹⁴³ In comparison to his fellow Justices, Blackmun stands alone in encouraging scientists to participate in the legal process and in relying on empirical research in his constitutional opinions. In fact, however, Blackmun differs from his colleagues only in degree in his manipulation of empirical research for normative ends. The previous section's examination of *Roe v. Wade* exemplified, in part, Blackmun's timidity in following science wherever it might lead. This section explores *Ballew v. Georgia*,¹⁴⁴ which probably contains the most extensive use of empirical research to be found in a Supreme Court opinion.

The Court in *Ballew* returned to the question of the constitutional relevance of jury size, which it first visited in *Williams v. Florida*.¹⁴⁵ *Williams* upheld the constitutionality of six-person juries in criminal cases, except capital cases, where juries of twelve are constitutionally mandated.¹⁴⁶ The *Williams* Court refrained from specifying the minimum number of jurors required by the Constitution, but observed that

the essential feature of a jury obviously lies in the interposition between the accused and his accuser of the commonsense judgment of a group of laymen, and in the community participation and shared responsibility that results from that group's determination of guilt or innocence. The performance of this role is not a function of the particular number of the body that makes

¹⁴³ See generally Schlesinger & Nesse, *Justice Harry Blackmun and Empirical Jurisprudence*, 29 AM. U.L. REV. 405, 406 (1980) (noting that Blackmun's use of scientific data in the formulation of his legal opinions illustrates the advantages and limitations of an "empirical-statistical approach to jurisprudence").

¹⁴⁴ 435 U.S. 223 (1978).

¹⁴⁵ 399 U.S. 78 (1970).

¹⁴⁶ See *id.* at 102-03; see also *Colgrove v. Battin*, 413 U.S. 149 (1973) (holding that a federal district court rule providing for six-person juries in civil cases does not violate the seventh amendment's guarantee of trial by jury).

up the jury. To be sure, the number should probably be *large enough to promote group deliberation*, free from outside attempts at intimidation, and to *provide a fair possibility for obtaining a representative cross-section of the community*.¹⁴⁷

In the approximately eight years between *Williams* and *Ballew*, social scientists conducted numerous studies examining the empirical questions raised by the *Williams* Court concerning, specifically, the effect of size on a jury's deliberations and representativeness of the community. In an opinion that has been likened to a social science article,¹⁴⁸ Blackmun surveyed the multitude of studies conducted since *Williams* in order to determine whether Georgia's prosecution of *Ballew* before a five-member jury violated the sixth amendment. Blackmun wrote that "these studies . . . lead us to conclude that the purpose and functioning of the jury in a criminal trial is seriously impaired, and to a constitutional degree, by a reduction in size to below six members."¹⁴⁹

In a thorough review of the jury size cases, Professor David Kaye argues that Blackmun's conclusion is not supported by the social science literature and, indeed, that his "treatment of the statistical literature is, at best, careless . . ."¹⁵⁰ Kaye demonstrates convincingly that the literature does not support the line drawn between six- and five-member panels. In fact, Kaye argues that the literature supports retention of the twelve-member scheme rejected in *Williams*,¹⁵¹ observing that "fixing the line at the point marked by *Williams* . . . has the appearance of expediency rather than principle."¹⁵² Moreover, Kaye states that *Ballew's* "reaffirmance[] of *Williams* represent[s] judicial intransigence—a willful disregard or cynical distortion of the writings of social scientists."¹⁵³

Kaye's trenchant criticisms assume that *Williams* should have been on the table for reconsideration. The Court, however,

¹⁴⁷ *Williams*, 399 U.S. at 100 (emphasis added).

¹⁴⁸ See Grofman & Scarow, *Mathematics, Social Science, and the Law*, in *THE USE/NONUSE/MISUSE OF APPLIED SOCIAL RESEARCH IN THE COURTS* 117, 121 (M. Saks & C. Baron eds. 1980).

¹⁴⁹ *Ballew*, 435 U.S. at 239.

¹⁵⁰ Kaye, *And Then There Were Twelve: Statistical Reasoning, the Supreme Court, and the Size of the Jury*, 68 CALIF. L. REV. 1004, 1008 (1980). But see Grofman & Scarow, *supra* note 148, at 121 (describing Blackmun's *Ballew* opinion as "good social science").

¹⁵¹ See Kaye, *supra* note 150, at 1032.

¹⁵² *Id.*; see also Sperlich, . . . *And Then There Were Six: The Decline of the American Jury*, 63 JUDICATURE 262, 275-79 (1980) (suggesting that certain "hidden agendas" motivated the Court's decision).

¹⁵³ Kaye, *supra* note 150, at 1032.

operated from an altogether different premise. The constitutional question presented in *Ballew* concerned where to draw the line *given* the Court's earlier decision to uphold panels of fewer than twelve members.¹⁵⁴ The social science studies available to the Court had little relevance to this question—none of the studies compared five-member panels to six-member panels.¹⁵⁵ Although Blackmun cast the social science research as responsive to the main issue, in reality, he used it heuristically to answer a different question than the scientists had researched. Blackmun "interpreted" the studies against the backdrop of the Court's decision in *Williams*. The Court thus integrated its fact-finding into the existing constitutional mosaic, a strategy that required reconciling the pertinent facts with other principles of constitutional theory, most notably precedent. If Blackmun had used the studies properly, that is, to support a constitutional requirement of twelve-member juries in criminal cases, he would not have written the opinion for the Court.¹⁵⁶

Ballew reflects a fundamental conflict between science and law.¹⁵⁷ Courts have relatively little latitude in choosing what

¹⁵⁴ In *Ballew*, the Court granted certiorari to consider the following question: "Whether a jury comprised of five persons is sufficient to afford an accused in a criminal prosecution the right to trial by jury granted by the Sixth and Fourteenth Amendments to the United States Constitution?" Petition for Certiorari at 2, *Ballew v. Georgia*, 435 U.S. 223 (1978) (No. 76-761). The Supreme Court's Rule 14.1(a) states: "Only the questions set forth in the petition, or fairly included therein, will be considered by the Court." SUP. CT. R. 14.1(a). For a discussion regarding the "unprecedented" character of departures from the rule without supplemental briefing or argument, see *Holland v. Illinois*, 110 S. Ct. 803, 811 n.3 (1990).

¹⁵⁵ Although none of the studies cited in *Ballew* specifically compared five-person panels to six-person panels, several analyzed the potential effects of panel size over a wide range. See, e.g., Lempert, *Uncovering "Nondiscernible" Differences: Empirical Research and the Jury-Size Cases*, 73 MICH. L. REV. 643, 690-91 (1975) (reviewing numerous empirical studies, including research which examined five- and six-person panels); Nagel & Neef, *Deductive Modeling to Determine an Optimum Jury Size and Fraction Required to Convict*, 1975 WASH. U.L.Q. 933, 945, 956 (1976) (using statistical models to compare probabilities of convictions and errors for panels ranging from one to fifteen in number); Thomas & Fink, *Effects of Group Size*, 60 PSYCHOLOGICAL BULL. 371 (1963) (reviewing similar studies).

¹⁵⁶ It must be noted that, while Justice Blackmun wrote the majority opinion establishing the constitutional floor at six, only Justice Stevens joined his reliance on the research. In fact, Justice Powell wrote acerbically, "I have reservations as to the wisdom—as well as the necessity—of Mr. Justice Blackmun's heavy reliance on numerology derived from statistical studies." *Ballew*, 435 U.S. at 246 (Powell, J., concurring). Chief Justice Burger and Justice Rehnquist joined Powell's concurrence. See *id.* at 245.

¹⁵⁷ For good general overviews on the relationship between law and social science, see Monahan & Loftus, *The Psychology of Law*, 33 ANN. REV. PSYCHOLOGY 441 (1982); Rosenblum, *A Place for Social Science Along the Judiciary's Constitutional Law Frontier*,

questions to decide and they must be expedient in providing answers. In the law, an answer based on incomplete information is often better than no answer at all. In contrast, scientists set their own agenda and have the luxury of seeking truth unconstrained by the demands of court dockets. Scientific explanations based on incomplete information are rarely better than withholding judgment pending more information. Still, many scientists set their agendas on the basis of questions the Court asks. This was typical of the research conducted after *Williams*.¹⁵⁸ The Court, however, had already "answered" the question of the constitutionality of six-member panels and now addressed the constitutionality of five-member panels. The social scientists arrived too late.

The conflicts inherent in the methods of law versus the methods of science do not necessarily render the two disciplines incompatible.¹⁵⁹ But these conflicts exacerbate the Court's already well developed tendency to "interpret" empirical research in light of its own jurisprudential mandates. The costs *appear* to be lower in "interpreting" facts rather than finding them. Following the facts wherever they lead might require modifying or overruling precedent and might create uncertainty over the state of the law pending scientific research.¹⁶⁰ The Court's tendency toward revisionist interpretations is especially marked where the data contradict the Court's prior judgments. The next section reviews cases in which

66 NW. U.L. REV. 455 (1971); Saks, *Enhancing and Restraining Accuracy in Adjudication*, 51 LAW & CONTEMP. PROBS. 243 (1988).

¹⁵⁸ See, e.g., Davis, Kerr, Atkin, Holt & Meek, *The Decision Processes of 6- and 12-Person Mock Juries Assigned Unanimous and Two-Thirds Majority Rules*, 32 J. PERSONALITY & SOC. PSYCHOLOGY 1, 2-3 (1975) ("In *Williams vs. Florida* (1970), the Court found that there was no constitutional bar to states setting jury sizes at some number less than the traditional 12. . . . Given the importance of the decisions juries frequently make, empirical work is obviously required."); Nagel & Neef, *supra* note 155, at 933-34 ("[T]he United States Supreme Court held in *Williams v. Florida* that due process is not violated if a state chooses to conduct criminal cases with six-person juries rather than twelve-person juries. . . . [B]ut there is still no systematic analysis of the fundamental issue raised by *Williams*" (footnote omitted)).

¹⁵⁹ Some commentators suggest that the paradigms of law and science are so incompatible that the latter can have very little impact on the former. See, e.g., Haney, *Psychology and Legal Change: On the Limits of a Factual Jurisprudence*, 4 LAW & HUM. BEHAV. 147, 158 (1980) (discussing "[s]ubstantial differences . . . between the styles and methods of reasoning, proof, and justification used in psychology and law"). For a contrary view, see Rosenblum, *Affinity and Tension in Relationships Between Social Science and Law*, 33 ST. LOUIS U.L.J. 1, 18 (1988) ("[L]aw and social science are each too important as dimensions of the other to be practiced in narcissistic insularity.").

¹⁶⁰ There are significant and perhaps greater costs associated with failing to follow facts wherever they might lead. See *infra* notes 270-82 and accompanying text.

the Court has fashioned its own conception of the facts, either despite research to the contrary or because no data are available on the relevant question.

C. *When the Court Finds Its Own Facts*

The Court stands on familiar ground when it advances constitutional facts without benefit of scientific input. The previous two sections examined the Court's strategy when scientific authority could be used to support its decisions. This section examines cases in which scientific authority fails to support the Court's preconceptions or does not exist at all. When empirical research is available but contradictory, the Court misconstrues or rejects it in order to follow its own predilections. When empirical research is unavailable, the Court still follows its own predilections, although sometimes expressing regret that no data exist to assist it. When the Court has expressed regret about the absence of data, social scientists have been quick to respond. This section first examines the Court's response to empirical data that contradict expectations. Next, the section reviews examples of cases in which the Court requested data, and how the Court responded to subsequently accumulated data that failed to confirm expectations.

1. Misconstruing or Ignoring Contradictory Data

Little frustrates researchers more than when the Court misconstrues available data. The solution seems simple enough: education. Scientists, therefore, cannot understand the Court's continuing ignorance of scientific research. But such errors do not simply demonstrate the Court's failure to appreciate research methods. Rather, these errors illustrate the Court's struggle to integrate new factual information into a preexisting constitutional framework. Because the Court perceives facts normatively, this integration is bound to conflict with scientists' expectations.

a. *Barefoot v. Estelle*

*Barefoot v. Estelle*¹⁶¹ concerned a Texas statute that requires a jury at the capital sentencing hearing to find, prior to imposing the death penalty, that "there is a probability that the defendant would commit criminal acts of violence that would constitute a continuing

¹⁶¹ 463 U.S. 880 (1983).

threat to society"¹⁶² The petitioner challenged his conviction on the basis that psychiatrists and psychologists cannot "predict with an acceptable degree of reliability that a particular criminal will commit other crimes in the future and so represent a danger to the community."¹⁶³ The American Psychiatric Association (APA) filed an amicus brief supporting this assessment. The APA brief reported a multitude of studies which estimate that two out of three predictions of long-term dangerousness are wrong.¹⁶⁴

Justice White, writing for the Court, refused to be persuaded by the research indicating the inevitable fallibility of psychiatric predictions of violence. White's opinion evidences a profound misunderstanding of the petitioner's and the APA's argument. This error appears attributable to his being forced to contend with data that run counter to the Court's precedent. As White remarked, "The suggestion that no psychiatrist's testimony may be presented with respect to a defendant's future dangerousness is somewhat like asking us to disinvent the wheel."¹⁶⁵ White found petitioner's argument "contrary to our cases,"¹⁶⁶ and advanced the following logic to reject the data:

If the likelihood of a defendant's committing further crimes is a constitutionally acceptable criterion for imposing the death penalty, which it is, *Jurek v. Texas*, 428 U.S. 262 (1976), and if it is not impossible for even a lay person sensibly to arrive at that conclusion, it makes little sense, if any, to submit that psychiatrists, out of the entire universe of persons who might have an opinion on the issue, would know so little about the subject that they should not be permitted to testify. In *Jurek*, seven Justices rejected the claim that it was impossible to predict future behavior and that

¹⁶² TEX. CODE CRIM. PROC. ANN. art. 37.071(b)(2) (Vernon 1981). Under Texas law, in order to impose the death penalty, the jury also has to find that the conduct was "committed deliberately and with reasonable expectation that the death of the deceased or another would result" *Id.* art. 37.071(b)(1).

¹⁶³ *Barefoot*, 463 U.S. at 896.

¹⁶⁴ See *id.* at 920 (Blackmun, J., dissenting). See generally J. MONAHAN, THE CLINICAL PREDICTION OF VIOLENT BEHAVIOR 6 (1981) (stating that the academic and professional communities widely accept the proposition that mental health professionals are highly inaccurate at predicting violent behavior); H. STEADMAN & J. COCOZZA, CAREERS OF THE CRIMINALLY INSANE 151 (1974) (indicating an error rate of 80%); Cocozza & Steadman, *The Failure of Psychiatric Predictions of Dangerousness: Clear and Convincing Evidence*, 29 RUTGERS L. REV. 1084, 1098 (1976) (citing research reporting an error rate of 86%).

¹⁶⁵ *Barefoot*, 463 U.S. at 896.

¹⁶⁶ *Id.*

dangerousness was therefore an invalid consideration in imposing the death penalty.¹⁶⁷

The logic of White's syllogism is irreproachable:

(1) *Jurek* holds that a dangerousness determination by a lay person is a "constitutionally acceptable criterion for imposing the death penalty";

(2) All psychiatrists are also lay persons.

(3) *Therefore*, a dangerousness determination by a psychiatrist is a "constitutionally acceptable criterion for imposing the death penalty."

There are, however, significant problems with the soundness of White's syllogism, the least of which might be the continuing validity of *Jurek*. *Jurek* can easily be distinguished from *Barefoot* on the basis of the peculiar treatment accorded expert testimony.¹⁶⁸ What is particularly instructive about the decision is White's struggle to integrate these constitutional facts into the fabric of settled constitutional doctrine. White perceived the data in the same way he might contemplate other potentially inconsistent facets of constitutional interpretation, such as prior precedent or contemporary values. The data had to be "interpreted" in light of accepted doctrine. White's unwillingness to accept the radical alternative of overruling precedent, and his inability to declare the fact in issue irrelevant, led him to observe that despite psychiatrists' significant error rate, the adversarial process provides the means by which jurors can decide which psychiatrists are correct. In regard to this belief, White made the remarkable assertion, "Neither petitioner nor the Association suggests that psychiatrists are always wrong with respect to future dangerousness, only most of the time."¹⁶⁹ As Justice Blackmun pointed out in dissent, this observation "misses the point completely," for "[o]ne can only wonder

¹⁶⁷ *Id.* at 896-97.

¹⁶⁸ All evidence codes mandate some prerequisite showing prior to the admission of expert testimony, usually applying either the *Frye* test or the relevancy test. See C. MCCORMICK, MCCORMICK ON EVIDENCE § 203, at 604-10 (3d ed. 1984). *Jurek's* holding that jurors can take into account a defendant's purported dangerousness does not necessarily mean that experts must be allowed to testify on that issue. If an expert cannot assist jurors, or her testimony is not generally accepted in the pertinent field, she should not be allowed to testify. The Court could have held, therefore, that it would be unconstitutional to allow an "expert" to testify on the defendant's purported dangerousness, but it is not unconstitutional for the jury to estimate the defendant's character for violence when considering whether to impose the death penalty. Many factual questions presented to juries pass constitutional scrutiny without being the subject of expert testimony.

¹⁶⁹ *Barefoot*, 463 U.S. at 901.

how juries are to separate valid from invalid expert opinions when the 'experts' themselves are so obviously unable to do so."¹⁷⁰

b. *Parham v. J.R. and Constitutional Balancing*

The Court again singularly interpreted constitutional facts in *Parham v. J.R.*,¹⁷¹ notwithstanding social science authority to the contrary. The *Parham* Court held that the Constitution does not require a due process hearing when parents seek "voluntary commitments" of their children to state mental hospitals.¹⁷² The Constitution mandates only that children be committed subject to the review of a physician acting as a "neutral factfinder."¹⁷³ Chief Justice Burger, writing for the Court, observed that, among other things, children are not "labeled" by voluntary commitments,¹⁷⁴ and that children are not as competent as adults to participate in the decision-making process.¹⁷⁵ He also noted that due process hearings ("time-consuming . . . minuets") disrupt patient care,¹⁷⁶ exacerbate preexisting familial conflict,¹⁷⁷ and do not increase the reliability and validity of psychiatric diagnosis.¹⁷⁸ Contrary to Burger's suppositions, social science research indicates that children are labeled and thus stigmatized by being committed to mental hospitals¹⁷⁹ and that most children after at least age fourteen are developmentally competent enough to participate in the decision-making process.¹⁸⁰ Moreover, research indicates that due pro-

¹⁷⁰ *Id.* at 929 (Blackmun, J., dissenting).

¹⁷¹ 442 U.S. 584 (1979).

¹⁷² *See id.* at 606.

¹⁷³ *See id.* at 606-07.

¹⁷⁴ *See id.* at 600-01.

¹⁷⁵ *See id.* at 602-03.

¹⁷⁶ *See id.* at 605-06.

¹⁷⁷ *See id.* at 610.

¹⁷⁸ *See id.* at 609.

¹⁷⁹ *See* Melton, *Family and Mental Hospital as Myths: Civil Commitment of Minors*, in CHILDREN, MENTAL HEALTH, AND THE LAW 151, 158-59 (N. Reppucci, L. Weithorn, E. Mulvey & J. Monahan eds. 1984).

¹⁸⁰ *See id.* at 155-56. It should be noted that current research does not demonstrate that adolescents are cognitively *equivalent* to adults. *See, e.g.,* Gardner, Scherer & Tester, *Asserting Scientific Authority: Cognitive Development and Adolescent Legal Rights*, 44 AM. PSYCHOLOGIST 895, 895 (1989) (examining the problems presented when scientific data concerning decision-making capacities of minors is presented in conjunction with a legal argument about minors' abortion rights). Research does indicate, however, that adolescents are competent to participate in the decision-making process. *See, e.g.,* Weithorn & Campbell, *The Competency of Children and Adolescents to Make Informed Treatment Decisions*, 53 CHILD DEV. 1589, 1596 (1982) (concluding, based on empirical research, that adolescents are capable of meaningful

cess hearings neither detract from patient care,¹⁸¹ nor lead to greater conflict than already exists in the affected family¹⁸² and, in fact, the hearings increase the accuracy and accountability of psychiatric diagnosis.¹⁸³ It is clear that Burger applied his unsupported assumptions about reality to resolve the constitutional question he had raised; it is less clear, however, that his acceptance of the social science findings would have resulted in a different conclusion.

In *Parham*, the Court used a balancing test, an interpretive strategy that allows considerable flexibility when resolving constitutional questions. Balancing has become the watchword of contemporary constitutional methodology.¹⁸⁴ Professor Aleinikoff identifies a "balancing opinion" as one "that analyzes a constitutional question by identifying interests implicated by the case and reaches a decision or constructs a rule of constitutional law by explicitly or implicitly assigning values to the identified interests."¹⁸⁵ Assigning values to the identified interests comprises only one step of the process. Reconciling the various factual contentions in light of those value choices represents the core of the analysis. Balancing not only fosters the fact-value conflict inherent in constitutional law, but has the balancing Court wallowing in this conflict as well.

In *Parham*, Burger applied the classic balancing formula of *Mathews v. Eldridge*,¹⁸⁶ which identified several interests to be balanced:

First, the private interest that will be affected by the official action; second, the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards; and finally, the Government's interest, including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requirement would entail.¹⁸⁷

participation in making personal decisions concerning health care).

¹⁸¹ See Melton, *supra* note 179, at 161-62.

¹⁸² See *id.* at 156-57.

¹⁸³ See *id.* at 161-62.

¹⁸⁴ See Aleinikoff, *Constitutional Law in the Age of Balancing*, 96 YALE L.J. 943, 964-65 (1987); see also Karst, *supra* note 19, at 79-80 ("All judges balance competing interests in deciding constitutional questions—even those who most vigorously deny their willingness to do so.").

¹⁸⁵ Aleinikoff, *supra* note 184, at 945.

¹⁸⁶ 424 U.S. 319 (1976).

¹⁸⁷ *Id.* at 335, quoted in *Parham*, 442 U.S. at 599-600.

The interests selected define the nature of the balance, representing the metaphorical "scales of justice" arising from the mandates of the Constitution. The actual use of the balance requires combining value judgments and empirical judgments on one scale, and weighing them against similar judgments on the other scales.

In *Parham*, three interests, or scales, had to be balanced. First, Burger defined the privacy interest as incorporating the child's assumed liberty interest, but added that the privacy interest also extends to parents who historically have broad authority over minor children.¹⁸⁸ Empirically, Burger questioned the depth of the infringement of the child's liberty interest resulting from civil commitment,¹⁸⁹ but cautioned that parental authority is not unlimited, because parents do not always act in the best interest of their children.¹⁹⁰ In regard to the second interest, the risk of erroneous deprivations, Burger observed that a physician acting as a "neutral factfinder" could be accurate¹⁹¹ and that time-consuming due process hearings would guarantee no greater accuracy.¹⁹² The third interest, according to Burger, implicated the government's primary concern with reducing the obstacles to hospital admission, in order to allow hospitals to carry out their mission and to avoid discouraging families from using state mental health facilities.¹⁹³

Under the Court's present practice, balancing allows maximum flexibility with minimum accountability. Aleinikoff challenges the viability of balancing, in principle, on the following basis:

Scientifically styled opinions, written to answer charges of subjectivity, make us spectators as the Court places the various interests on the scales. The weighing mechanism remains a mystery, and the result is simply read off the machine. Scientific balancing decisions are neither opinions nor arguments that can engage us; they are demonstrations.¹⁹⁴

¹⁸⁸ See *Parham*, 442 U.S. at 600.

¹⁸⁹ See *id.* at 600-01.

¹⁹⁰ See *id.* at 602-03.

¹⁹¹ See *id.* at 606-07.

¹⁹² See *id.* at 613.

¹⁹³ See *id.* at 604-05.

¹⁹⁴ Aleinikoff, *supra* note 184, at 993. Other commentators have also voiced concern over the empirical component in balancing. See, e.g., Woolhandler, *supra* note 19, at 121. Professor Woolhandler notes:

Although it is true that with balancing the weighing mechanism can be mysterious, the true source of mystery comes from the jumbling of the normative and empirical when doing the balance. What should engage our constitutional imaginations are the factors to be placed on the balance and the nature of the "weighing mechanism." In order to maintain balancing as a viable constitutional strategy, the Court must clearly state what facts have constitutional import and what weight the Court attributes to these facts.¹⁹⁵ In *Parham*, for instance, the effect of civil commitments on a child's liberty interest and the accuracy of physicians as "neutral factfinders" are facts having constitutional relevance. How these facts are balanced depends largely on the weight the Court attaches to them and also on how confidently the Court knows the facts. Of course, as the number of variables multiplies, the cogency of the balance will begin to disintegrate.¹⁹⁶ Still, the Court can do much to identify more clearly than it has so far the constitutionally relevant facts and their respective constitutional weights. Once these are established, the decision might very well depend on scientific "demonstrations." The mystery of constitutional law

Formalizing the process for judicial reception of legislative facts will increase the hegemony of pragmatic balancing at the expense of other processes of judicial reasoning. Increasing the influence of pragmatic balancing in judicial decisionmaking will make the judicial process look more like the legislative and administrative processes, and will undermine the legitimacy of the courts.

Id.

¹⁹⁵ Professor Michael Moore explicates the components of legal analysis as follows: (1) statement of law, (2) statement of fact, and (3) interpretive statement (i.e., applying the statement of law to the statement of fact). See Moore, *supra* note 1, at 283. The confusion endemic in balancing arises out of a failure to keep these components of legal analysis separate. On the legitimacy of viewing these components as separate in the first place, see *id.* at 309-12.

¹⁹⁶ Justice Cardozo captured the complexity of the juncture of law and fact in the process of legal thinking in the following passage:

In the present state of knowledge, the estimate of the comparative value of one social interest and another, when they come, two or more of them, into collision, will be shaped for the judge, as it is for the legislator, in accordance with an act of judgment in which many elements cooperate. It will be shaped by his experience of life; his understanding of the prevailing canons of justice and morality; his study of the social sciences; at times, in the end, by his intuitions, his guesses, even his ignorance or prejudice. The web is tangled and obscure, shot through with a multitude of shades and colors, the skeins irregular and broken. Many hues that seem to be simple, are found, when analyzed, to be a complex and uncertain blend.

B. CARDOZO, *THE GROWTH OF THE LAW* 85-86 (1924).

deepens every time the Court fails to articulate empirical questions clearly and, moreover, when it fails to accept valid empirical answers when they are provided.

2. Calls for Data

When finding constitutional facts, the Justices often lament the absence of social science research to aid them in their task. Although many examples can be forwarded,¹⁹⁷ two stand out and require special attention, *United States v. Leon*¹⁹⁸ and *Witherspoon v. Illinois*.¹⁹⁹

a. *United States v. Leon*

In *Leon*, the Court created a good-faith exception to the exclusionary rule. Central to the Court's holding was its estimation of the effect a good-faith exception would have on deterring constitutional violations by the police. Finding the empirical research equivocal,²⁰⁰ Justice White, writing for the majority, assumed that the exception would have no significant effect on police misconduct.²⁰¹ Justice Blackmun, however, wrote separately to emphasize that the holding might change if research demonstrated the inaccuracy of the Court's assumption:

[A]ny empirical judgment about the effect of the exclusionary rule in a particular class of cases necessarily is a provisional one. . . . If it should emerge from experience that, contrary to our expectations, the good-faith exception to the exclusionary rule results in a material change in police compliance with the Fourth Amendment, we shall have to reconsider what we have undertaken here. The logic of a decision that rests on untested predictions about police conduct demands no less.²⁰²

¹⁹⁷ See, e.g., *Ballew v. Georgia*, 435 U.S. 223 (1978) (discussed *supra* notes 144-60 and accompanying text); *Williams v. Florida*, 399 U.S. 78 (1970) (same); see also *Chandler v. Florida*, 449 U.S. 560, 578 (1981) ("Whatever may be the 'mischievous potentialities [of broadcast coverage] for intruding upon the detached atmosphere which should always surround the judicial process,' at present no one has been able to present empirical data sufficient to establish that the mere presence of the broadcast media inherently has an adverse effect" (citations omitted)).

¹⁹⁸ 468 U.S. 897 (1984).

¹⁹⁹ 391 U.S. 510 (1968).

²⁰⁰ See *Leon*, 468 U.S. at 907 n.6.

²⁰¹ See *id.* at 918-21.

²⁰² *Id.* at 928 (Blackmun, J., concurring).

The Court has not had occasion to reconsider the assumption in *Leon*, and empirical research remains equivocal on the validity of that assumption.²⁰³ Even if, however, research clearly demonstrated an error in the Court's empirical assumption, there is little reason to be sanguine that the Court would pay much attention. If the Court wished to reaffirm *Leon*, it might simply sweep the research aside as invalid or shift to an alternative basis for its holding, thereby rendering the research irrelevant. In *Lockhart v. McCree*,²⁰⁴ the Court pursued both of these strategies in rejecting the research it had requested in *Witherspoon v. Illinois*. I consider the *Lockhart* Court's misinterpretation of the data in this Section, and its rendering it irrelevant in section II(D).

b. *Witherspoon v. Illinois and Lockhart v. McCree*

In *Witherspoon*, the Court considered the constitutionality of an Illinois statute providing that "[i]n trials for murder it shall be a cause for challenge of any juror who shall, on being examined, state that he has conscientious scruples against capital punishment, or that he is opposed to the same."²⁰⁵ The petitioner argued that common sense and the research available indicate that excluding jurors who oppose capital punishment (called "*Witherspoon*-excludables") would result in a jury biased in favor of conviction.²⁰⁶ Justice Stewart, writing for the Court, confirmed the relevance of the question, and deplored the lack of information to answer it:

The data adduced by the petitioner . . . are too tentative and fragmentary to establish that jurors not opposed to the death penalty tend to favor the prosecution in the determination of guilt. We simply cannot conclude, either on the basis of the record now before us or as a matter of judicial notice, that the exclusion of jurors opposed to capital punishment results in an unrepresenta-

²⁰³ Uchida, Bynum, Rogan & Murasky, *Acting in Good Faith: The Effects of United States v. Leon on the Police and Courts*, 30 ARIZ. L. REV. 467, 494 (1988), examined the effects of *Leon* on police practices regarding search warrants and on factors relating to search warrant practices at the trial level and found the decision to have had only a minimal effect on the factors studied. As the authors recognize, their failure to find an effect immediately following the Court's decision might indicate only that the full impact of the decision has yet to be realized. *See id.*

²⁰⁴ 476 U.S. 162 (1986).

²⁰⁵ *Witherspoon*, 391 U.S. at 512.

²⁰⁶ *See id.* at 516-17.

tive jury on the issue of guilt or substantially increases the risk of conviction.²⁰⁷

Though the Court refused to rule that Illinois' juror exclusion created a jury biased towards conviction, it did hold that the selection process unconstitutionally created a jury biased towards sentencing the defendant to death.²⁰⁸ The Court explicitly left open the possibility that future research would establish a positive correlation between a jury's demonstrated bias toward capital punishment and a propensity for finding a defendant guilty: "Even so, a defendant convicted by such a jury in some future case might still attempt to establish that the jury was less than neutral with respect to *guilt*."²⁰⁹

The social science community's response to the Court's entreaty was extraordinary.²¹⁰ Social scientists conducted more than a dozen reported studies on the effects of excluding jurors opposed to capital punishment.²¹¹ The near-consensus of the investigators and reviewers of this research corroborated the intuitive judgment of the petitioner in *Witherspoon* that excluding these jurors would result in conviction prone juries.²¹²

Justice Rehnquist (now Chief Justice) repudiated the validity of the fifteen studies McCree introduced, because of "several serious

²⁰⁷ *Id.* at 517-18.

²⁰⁸ *See id.* at 523 ("Whatever else might be said of capital punishment, it is at least clear that its imposition by a hanging jury cannot be squared with the Constitution.").

²⁰⁹ *Id.* at 520 n.18. The Court continued as follows: "If he were to succeed in that effort, the question would then arise whether the State's interest in submitting the penalty issue to a jury capable of imposing capital punishment may be vindicated at the expense of the defendant's interest in a completely fair determination of guilt or innocence" *Id.*

²¹⁰ *See* Finch & Ferraro, *The Empirical Challenge to Death-Qualified Juries: On Further Examination*, 65 NEB. L. REV. 21, 24 (1986) ("In the seventeen years following *Witherspoon*, death qualification has been one of the most studied subjects in the area of sociological jurisprudence."). *See generally* Thompson, *Death Qualification After Wainwright v. Witt and Lockhart v. McCree*, 13 LAW & HUM. BEHAV. 185 (1989) (analyzing the Court's treatment of social science in constitutional litigation concerning death qualification and discussing the future role of such research).

²¹¹ *See* Finch & Ferraro, *supra* note 210, at 25.

²¹² As Finch and Ferraro report, the data supported three hypotheses:

(1) jurors excluded because of their inability to impose the death penalty are more attitudinally disposed to favor the accused than are non-excluded jurors; (2) excluded jurors are more likely to be black or female than non-excluded jurors; and (3) excluded jurors are more likely to actually acquit than are non-excluded jurors.

Id.

flaws"²¹³ he found in the research. He criticized eight studies for dealing "solely with generalized attitudes and beliefs about the death penalty and other aspects of the criminal justice system, and . . . thus [being], at best, only marginally relevant to the constitutionality of McCree's conviction."²¹⁴ Rehnquist's review, however, failed to consider the possible relationship between attitude and conduct, and did not explain the contrary conclusion drawn by the lower court.²¹⁵ Rehnquist disparaged another study examining the effect of the death qualification process on juror's attitudes, because it "would not, *standing alone*, give rise to a constitutional violation."²¹⁶ Rehnquist failed to realize that no single study could ever meet such a requirement; science is a collaborative enterprise through which the testing and retesting of hypotheses produce findings substantial enough to rely upon.²¹⁷

Rehnquist continued his divide and conquer strategy with the six remaining studies, the only ones to examine specifically the effect on verdicts of excluding "*Witherspoon*-excludables." Rehnquist dismissed three studies because they were before the Court in *Witherspoon*. Naturally, he believed, if "these studies were 'too tentative and fragmentary' to make out a claim of constitutional error in 1968, the same studies, unchanged but for having aged some 18 years, are still insufficient to make out such a claim in this

²¹³ See *Lockhart*, 476 U.S. at 168.

²¹⁴ *Id.* at 169.

²¹⁵ Chief Judge Eisele of Arkansas observed that

the attitudinal surveys . . . clearly establish[] that a juror's attitude toward the death penalty is the most powerful known predictor of his overall predisposition in a capital criminal case. That evidence shows that persons who favor the death penalty are predisposed in favor of the prosecution and are uncommonly predisposed against the defendant. The evidence shows that death penalty attitudes are highly correlated with other criminal justice attitudes. Generally, those who favor the death penalty are more likely to trust prosecutors, distrust defense counsel, to believe the state's witnesses, and to disapprove of certain of the accepted rights of defendants in criminal cases. A jury so selected will . . . be composed of a group of persons who are uncommonly predisposed to favor the prosecution, a jury "organized to convict."

Grigsby v. Mabry, 569 F. Supp. 1273, 1304 (E.D. Ark. 1983), *modified*, 758 F.2d 226 (8th Cir. 1985).

²¹⁶ *Lockhart*, 476 U.S. at 170 (emphasis added).

²¹⁷ See generally E. NAGEL, *THE STRUCTURE OF SCIENCE: PROBLEMS IN THE LOGIC OF SCIENTIFIC EXPLANATION* 12 (1961) (discussing the differences between scientific hypotheses and common sense beliefs and noting that scientific evidence must be based on the "performance of those canons in an extensive class of inquiries").

case."²¹⁸ Rehnquist failed to appreciate that what were *initial* studies in 1968 had now been replicated and thereby supported in the intervening eighteen years.²¹⁹ All findings in science must necessarily begin as "tentative and fragmentary." Would Rehnquist today dismiss the relevance of Albert Einstein's early work on the special theory of relativity because it was tentative and fragmentary?²²⁰ The principal measure of the value of a scientific hypothesis is its ability to withstand repeated tests. The 1968 studies on death-qualified juries have proven to be quite resilient.²²¹

As for the remaining three studies, Rehnquist complained, all of them relied on mock jurors, two of the three studies failed to simulate the process of jury deliberation, and only one of the studies accounted for "nullifiers," that is, those individuals who can properly be excluded, "because of their deep-seated opposition to the death penalty" and who thus "would be unable to decide a capital defendant's guilt or innocence fairly and impartially."²²² These criticisms overlook the substantial value of social science research that does not exactly replicate the trial process or that fails to examine real jurors at trial—methods currently unavailable to social scientists.²²³ Finally, Rehnquist rejected the one study that used simulated jury deliberations and took into account "nullifiers" as too slender a reed on which to rest a *per se* constitutional rule.²²⁴ This criticism completely ignores the cumulative nature of the scientific enterprise.²²⁵

²¹⁸ *Lockhart*, 476 U.S. at 171.

²¹⁹ It should also be noted that the studies before the *Witherspoon* Court had not yet been published. When the *Lockhart* Court considered them, all except for one study had been published. See Thompson, *supra* note 210, at 197.

²²⁰ See A. EINSTEIN, RELATIVITY: THE SPECIAL AND THE GENERAL THEORY (1920).

²²¹ Not all social scientists agree that the data introduced in *Lockhart v. McCree* are sufficient to support the conclusion that "death qualification" results in an increase in conviction rates. In a recent article, Professor Rogers Elliott criticizes the American Psychological Association's amicus brief in *Lockhart* for informing the Court that such a relationship exists. Elliott argues that the data *remain* too tentative to draw any firm conclusion regarding the effects of death qualification. See Elliott, *Social Science and the APA: The Lockhart Brief as a Case in Point* (forthcoming 15 LAW & HUM. BEHAV. (1991)). But see Ellsworth, *To Tell What We Know or Wait for Godot?* (forthcoming 15 LAW & HUM. BEHAV. (1991)) (defending the decision to submit the APA brief in *Lockhart*).

²²² *Lockhart*, 476 U.S. at 172.

²²³ See *Grigsby v. Mabry*, 758 F.2d 226, 237 (8th Cir. 1985) ("[I]t is the courts who have often stood in the way of surveys involving real jurors and we should not now reject a study because of this deficiency." (footnote omitted)).

²²⁴ *Lockhart*, 476 U.S. at 172-73.

²²⁵ See Mahoney, *Experimental Methods and Outcome Evaluation*, 46 J. CONSULTING

Misconstruing or ignoring empirical research leaves the Court open to broad attacks by critics who declaim the Court's ignorance. In addition, by describing the research as not yet sufficient to rely upon, the Court encourages further research endeavors.²²⁶ The possibility that the law will change, because either the Court will someday learn to understand and use empirical techniques or future research will indicate a contrary rule, leaves the Court's pronouncements uncertain, a state the Court would presumably prefer to avoid.²²⁷ An alternative strategy that avoids this uncertainty, and which is gaining in popularity, is to render the particular fact irrelevant by changing the constitutional question presented. The following section reviews several cases in which the Court adopted this very solution.

D. *When the Court Changes the Law to Avoid the Facts*

Much of Justice Rehnquist's *Lockhart* opinion is dedicated to pointing out "some of the more serious problems"²²⁸ with the social science studies introduced by the petitioner. Yet, after expending considerable energy criticizing this research, Rehnquist states that "we will assume for purposes of this opinion that the studies are both methodologically valid and adequate to establish that 'death qualification' in fact produces juries somewhat more 'conviction-prone' than 'non-death-qualified' juries."²²⁹ Even given this assumption, the Court held, "the Constitution does not prohibit the States from 'death qualifying' juries in capital cases."²³⁰ Rather than being inexplicable, this practice of accepting the validity of empirical research, while simultaneously discounting the relevance of that very research, is explained fully by the Court's general treatment of science.

& CLINICAL PSYCHOLOGY, 660, 660 (1978) ("The perfect experiment has yet to be designed and is, in some sense, inconceivable." (citation omitted)).

²²⁶ See Gross, *Overruled: Jury Neutrality in Capital Cases*, STAN. LAW., Fall 1986, at 11, 11.

²²⁷ See *id.* at 13 ("[A] holding based solely on the insufficiency of the evidence would have been an invitation for future litigation based on additional studies and even fuller records, and the last thing the Court wanted was to face this claim again.").

²²⁸ *Lockhart*, 476 U.S. at 173.

²²⁹ *Id.*

²³⁰ *Id.*

1. *Lockhart v. McCree*

In his *Lockhart* opinion, Rehnquist considered the social science data to be irrelevant to McCree's constitutional claims.²³¹ But McCree had advanced the data as being pertinent to Justice Stevens's *Witherspoon* query: "[Does] the exclusion of jurors opposed to capital punishment result[] in an unrepresentative jury on the issue of guilt or substantially increase[] the risk of conviction[?]"²³² Rehnquist's opinion, without explicitly saying so, repudiates Stevens's legal analysis.

The Eighth Circuit had ruled for McCree on the basis of McCree's sixth amendment claim that death qualification deprives the defendant of a jury that is representative of a cross-section of the community.²³³ Rehnquist, however, rejected this argument, observing, first, that the fair cross-section principle of the sixth amendment has never been applied to petit juries.²³⁴ Moreover, he asserted, even if the fair cross-section principle extended to petit juries, this principle only extends to "distinctive groups," such as blacks, women or Mexican-Americans, not to "groups defined solely in terms of shared attitudes"²³⁵

Rehnquist also rejected McCree's fourteenth amendment claim that "death-qualification" violated his constitutional right to an impartial jury.²³⁶ McCree's petition had relied on the standard in *Witherspoon* concerned with whether, *in the aggregate*, death-qualification would result in increased conviction rates.²³⁷ But in *Lockhart*, Rehnquist shifted the *Witherspoon* standpoint from determining whether qualified juries as a class might result in higher conviction rates to whether a particular jury consists of "jurors who will conscientiously apply the law and find the facts."²³⁸ McCree did not argue that *his* jury had not been impartial, but rather that death qualification in general "tips the scales" in the state's favor.²³⁹ The social science research, which indicat-

²³¹ See *id.* at 183-84.

²³² *Witherspoon*, 391 U.S. at 518.

²³³ See *Lockhart*, 476 U.S. at 173.

²³⁴ See *id.* at 173.

²³⁵ *Id.* at 174-75.

²³⁶ *Id.* at 177-78.

²³⁷ See *Witherspoon*, 391 U.S. at 516-17.

²³⁸ *Lockhart*, 476 U.S. at 178; see also Thompson, *supra* note 210, at 195 ("The ultimate basis of [*Lockhart*] was not the Court's rejection of the social science research . . . , but its rejection of the aggregate view of jury impartiality." (footnote omitted)).

²³⁹ See *Lockhart*, 476 U.S. at 178.

ed a systemic bias, could not, and indeed can never, answer the constitutional question posited by Rehnquist in *Lockhart*: can "the jurors [in the particular case] conscientiously and properly carry out their sworn duty to apply the law to the facts[?]"²⁴⁰ By shifting the perspective from concern over whether the aggregate effect of death qualification increases conviction rates to concern over whether death qualification created bias in the petitioner's jury, Rehnquist rendered the research irrelevant.²⁴¹ In order to achieve this result, he had to change the legal rule.

2. *McCleskey v. Kemp*

A second and perhaps more troubling example of the Court's transforming the law in order to avoid the apparent ramifications of empirical data is *McCleskey v. Kemp*.²⁴² The petitioner in *McCleskey*, a black man, was sentenced to death for the killing of a white police officer during the course of a robbery. McCleskey introduced at trial an extensive and sophisticated study conducted by Professor David Baldus and others (the "Baldus study") indicating, among other things, that "defendants charged with killing white victims were 4.3 times as likely to receive a death sentence as defendants charged with killing blacks."²⁴³ McCleskey proffered the Baldus study in support of his claim that his death sentence violated the equal protection clause of the fourteenth amendment and the eighth amendment's ban on cruel and unusual punishment. Unlike the district court, which extensively reviewed the validity of the Baldus study,²⁴⁴ the Supreme Court *assumed* the study's validi-

²⁴⁰ *Id.* at 184.

²⁴¹ Rehnquist also changed the pertinent facts in these kinds of cases from legislative facts to adjudicative facts. For a discussion of the importance of such a transformation, see *infra* notes 305-08 and accompanying text.

²⁴² 481 U.S. 279 (1987).

²⁴³ *Id.* at 287.

²⁴⁴ The district court found that the Baldus study was flawed in several respects. See *McCleskey v. Zant*, 580 F. Supp. 338, 356-361 (N.D. Ga. 1984), *rev'd*, 753 F.2d 877 (11th Cir. 1985), *aff'd*, 481 U.S. 279 (1987). The district court's analysis, however, is less than persuasive. See D. BALDUS, G. WOODWORTH & C.A. PULASKI, JR., *EQUAL JUSTICE AND THE DEATH PENALTY* 340-69 (1990) [hereinafter D. BALDUS]; Kennedy, *McCleskey v. Kemp: Race, Capital Punishment, and the Supreme Court*, 101 HARV. L. REV. 1388, 1398-1400 (1988). Also, Justices Blackmun and Stevens explicitly stated their belief in the study's validity. Justice Blackmun wrote:

I agree with Justice Stevens' position that the proper course is to remand this case to the Court of Appeals for determination of the validity of the statistical evidence presented. Like Justice Stevens, however, I am persuaded that the Baldus study is valid and would remand merely in the

ty,²⁴⁵ but held, nonetheless, that McCleskey's claims failed under the applicable law.

The Court first considered McCleskey's claim that his death sentence violated the equal protection clause of the fourteenth amendment. As Justice Powell, writing for the Court, explained, "a defendant who alleges an equal protection violation has the burden of proving 'the existence of purposeful discrimination'"²⁴⁶ which "had a discriminatory effect" on him."²⁴⁷ Hence, "McCleskey must prove that the decisionmakers in *his* case acted with discriminatory purpose."²⁴⁸ Just as in *Lockhart*, framing the question in particularized terms limits the relevance of McCleskey's statistical showing.²⁴⁹ Unlike *Lockhart*, equal protection claims traditionally focus on the particular case, and the ultimate query concerns the discriminatory intent of the decision-maker. Statistical demonstrations are ill-suited to these kinds of questions. Yet, the Court has sometimes accepted statistical proof standing alone to establish a discrimination claim, specifically in claims of discrimination in venire-selection under the fourteenth amendment and in Title VII claims under the Civil Rights Act of 1964.²⁵⁰

Justice Powell distinguished McCleskey's equal protection claim from venire-selection and Title VII cases on several grounds. Powell argued that "[i]n those cases, the statistics relate to fewer entities, and fewer variables are relevant to the challenged decisions."²⁵¹ Moreover, in venire-selection and Title VII cases, Powell argued,

interest of orderly procedure.

McCleskey, 481 U.S. at 345 n.1 (Blackmun, J., dissenting) (citation omitted).

²⁴⁵ The *McCleskey* Court, just as the *Lockhart* Court before it, felt it necessary to also criticize the research methodology before declaring the data irrelevant. See *McCleskey*, 481 U.S. at 288-89 n.6; *supra* notes 213-25 and accompanying text.

²⁴⁶ *McCleskey*, 481 U.S. at 292 (quoting *Whitus v. Georgia*, 385 U.S. 545, 550 (1967)).

²⁴⁷ *Id.* (quoting *Wayte v. United States*, 470 U.S. 598, 608 (1985)).

²⁴⁸ *Id.*

²⁴⁹ See *supra* notes 236-41 and accompanying text. McCleskey's expert explained the inherent limitations of the statistical proof as follows:

Models that are developed talk about the effect on the average. They do not depict the experience of a single individual. What they say, for example, [is] that on the average, the race of the victim, if it is white, increases on the average the probability . . . [that] the death sentence would be given.

Whether in a given case that is the answer, it cannot be determined from statistics.

McCleskey, 481 U.S. at 293 n.11 (quoting *McCleskey*, 580 F. Supp. at 372).

²⁵⁰ See *McCleskey*, 481 U.S. at 293-95.

²⁵¹ *Id.* at 295 (footnotes omitted).

"the decisionmaker has an opportunity to explain the statistical disparity,"²⁵² whereas in a *McCleskey*-styled claim, public policy prohibits requiring jurors to explain their decisions or having prosecutors explain their reasons for seeking the death penalty.²⁵³ Finally, citing the importance of upholding states' criminal laws against murder and the discretion inherent in carrying out these laws, Powell concluded that more than a naked statistical showing was necessary to establish an equal protection violation.²⁵⁴

Under *Batson v. Kentucky*²⁵⁵ and the framework of *Castaneda v. Partida*,²⁵⁶ in venire-selection and Title VII cases the petitioner must first establish a prima facie case of purposeful discrimination; upon such a showing, the burden shifts to the respondent to rebut the petitioner's case. Statistical proof provides a formidable weapon to petitioners in establishing prima facie cases and thereby in requiring the respondent to explain the discriminatory impact. The distinctions Powell drew between the contexts of venire-selection and Title VII and capital sentencing do not justify treating *McCleskey*'s claim differently. The number of entities affected or the number of variables taken into account in the decision-making process should be irrelevant considerations if the factor of race infects the process, as the Court assumes it does. Whether race operates among a few factors or many, or if race influences the judgments within just one entity or within several entities, it remains a prohibited basis on which to rest a decision. The many variables considered in capital sentencing decisions and the many entities which participate in the decision-making process make it all the more necessary to require the State to rebut the petitioner's prima facie showing of discrimination. State officials are better situated than petitioners to uncover such facts. The State need not question individual jurors nor have each prosecutor explain her basis for seeking the death penalty, but the State should have to offer a substantiated alternative explanation for the discriminatory impact of its sentencing scheme.²⁵⁷

²⁵² *Id.* at 296.

²⁵³ *See id.*

²⁵⁴ *See id.* at 297.

²⁵⁵ 476 U.S. 79 (1986).

²⁵⁶ 430 U.S. 482 (1977).

²⁵⁷ In fact, the State of Georgia did offer rebuttal evidence to the Baldus data. Justice Blackmun explained the State's position as follows:

[T]he State's expert suggested that if the Baldus thesis was correct then the aggravation level in black-victim cases where a life sentence was imposed

Nonetheless, it must be admitted that extending *Batson* and *Castaneda* to the capital sentencing context is not compelled by the Court's precedent. In this regard, McCleskey's second ground for challenging his sentence was clearly the stronger of the two.

McCleskey rested the second challenge to his sentence on eighth amendment grounds. Consistently under the Court's prior cases, the death penalty could "not be imposed under sentencing procedures that create a substantial *risk* that the punishment will be inflicted in an arbitrary and capricious manner."²⁵⁸ The defendant does not have to prove that race affected *his* sentencing decision; the eighth amendment's concern is the "sentencing system as a whole."²⁵⁹ Hence, the petitioner establishes a constitutional violation by demonstrating a "pattern of arbitrary and capricious sentencing."²⁶⁰ This system-wide perspective is especially well suited to statistical proof.

would be higher than in white-victim cases. The expert analyzed aggravating and mitigating circumstances "one by one, demonstrating that in life sentence cases, to the extent that any aggravating circumstance is more prevalent in one group than the other, there are more aggravating features in the group of white-victim cases than in the group of black-victim cases. Conversely, there were more mitigating circumstances in which black-victim cases had a higher proportion of that circumstance than in white-victim cases."

McCleskey, 481 U.S. at 359-60 (Blackmun, J., dissenting) (citations omitted) (quoting *McCleskey v. Zant*, 580 F. Supp. 338, 373 (N.D.Ga. 1984)).

Blackmun rejected the State's argument, observing:

The State's meager and unsophisticated evidence cannot withstand the extensive scrutiny given the Baldus evidence. . . . [T]he State did not "demonstrate that when th[e] factors were properly organized and accounted for there was no significant disparity" between the death sentences imposed on defendants convicted of killing white victims and those imposed on defendants convicted of killing black victims.

Id. at 360-61 (footnote omitted) (quoting *Dazemore v. Friday*, 478 U.S. 385, 403-04 n.14 (1986)).

²⁵⁸ *Godfrey v. Georgia*, 446 U.S. 420, 427 (1980) (emphasis added); *see also* *Caldwell v. Mississippi*, 472 U.S. 320, 343 (1985) (O'Connor, J., concurring) (reasoning that death sentence must be invalidated when circumstances indicate "an unacceptable *risk* that 'the death penalty [may have been] meted out arbitrarily or capriciously' or through 'whim . . . or mistake'" (emphasis added) (quoting *California v. Ramos*, 463 U.S. 992, 999 (1983) and *Eddings v. Oklahoma*, 455 U.S. 104, 118 (1982)); *Furman v. Georgia*, 408 U.S. 238, 242 (1972) (Douglas, J., concurring) ("It would seem to be incontestable that the death penalty inflicted on one defendant is 'unusual' if it discriminates against him by reason of his race, religion, wealth, social position, or class, or if it is imposed under a procedure that gives room for the play of such prejudices.").

²⁵⁹ *Gregg v. Georgia*, 428 U.S. 153, 200 (1976).

²⁶⁰ *Id.* at 195 n.46.

The Baldus study appears to have substantiated just such a "pattern of arbitrary and capricious sentencing." Justice Brennan summarized some of the inferences to be drawn from the Baldus study as follows:

For the Georgia system as a whole, race accounts for a six percentage point difference in the rate at which capital punishment is imposed. Since death is imposed in 11% of all white-victim cases, the rate in comparably aggravated black-victim cases is 5%. The rate of capital sentencing in a white-victim case is thus 120% greater than the rate in a black victim case. Put another way, over half—55%—of defendants in white-victim crimes in Georgia would not have been sentenced to die if their victims had been black. Of the more than 200 variables potentially relevant to a sentencing decision, race of the victim is a powerful explanation for variation in death sentence rates—as powerful as nonracial aggravating factors such as a prior murder conviction or acting as the principal planner of the homicide.²⁶¹

The majority, however, rejected the perspective of the prior case law which interpreted the eighth amendment as concerned with the *risk* of arbitrary and capricious decisions in the system as a whole. Instead, Powell again turned to McCleskey's particular case and queried whether racial considerations infected his jury. This particularized inquiry rendered the statistical proof irrelevant: "Even Professor Baldus does not contend that his statistics *prove* . . . that race was a factor in McCleskey's particular case."²⁶² Powell recognized that "some risk" of racial prejudice might influence a jury's decision, but he refused to be persuaded about the gravity of this risk on the basis of the Baldus study.²⁶³ Moreover, as Rehnquist had done in *Lockhart* and White had done in *Barefoot*, Powell preferred to put his faith in the judicial process.²⁶⁴ Powell ex-

²⁶¹ *McCleskey*, 481 U.S. at 326 (Brennan, J., dissenting).

²⁶² *Id.* at 308. Powell quoted Baldus's testimony on this matter as follows:

"McCleskey's case falls in [a] grey area where . . . you would find the greatest likelihood that some inappropriate consideration may have come to bear on the decision.

"In an analysis of this type, obviously one cannot say that we can say to a moral certainty what it was that influenced the decision. We can't do that."

Id. at 308 n.29.

²⁶³ The reader should recall Powell's reference to the statistical data introduced in *Ballew v. Georgia* as being the product of "numerology," see *supra* note 156, to perhaps explain his reaction to the Baldus study.

²⁶⁴ See *McCleskey*, 481 U.S. at 309 ("Our efforts have been guided by our recogni-

plained that "McCleskey's argument that the Constitution condemns the discretion allowed decisionmakers in the Georgia capital sentencing system is antithetical to the fundamental role of discretion in our criminal justice system."²⁶⁵ Therefore, in order to establish an eighth amendment violation, the petitioner must introduce evidence that the discretion invested in the prosecutor or jury in his particular case resulted in an arbitrary or capricious decision,²⁶⁶ not that such discretion in the system permits such results.

Lockhart and *McCleskey* illustrate how the Court can manipulate the law in order to change the impact of empirical research. In both cases, the Court shifted the precedent's system-wide perspective, which encouraged scientific research, to a particularized perspective that rendered the research conducted irrelevant.²⁶⁷ This legal legerdemain confounds researchers. Indeed, the Court's overall handling of empirical research has been a constant source of frustration for scientists.²⁶⁸ This history of manipulation might appear to lessen the value of science to constitutional law. In reality, this history substantiates the role of scientific fact-finding as a viable restraining principle of constitutional interpretation.

E. Conclusion

The modern Court's use of empirical research continues the inveterate tradition of normative constitutional fact-finding.²⁶⁹

tion that 'the inestimable privilege of trial by jury . . . is a vital principle, underlying the whole administration of criminal justice.'" (quoting *Ex parte Milligan*, 71 U.S. (4 Wall.) 2, 123 (1866))).

²⁶⁵ *Id.* at 311.

²⁶⁶ *See id.* at 306-08.

²⁶⁷ *See* Lempert, *supra* note 26, at 187-88.

²⁶⁸ *See, e.g.,* Ellsworth, *Unpleasant Facts: The Supreme Court's Response to Empirical Research on Capital Punishment*, in CHALLENGING CAPITAL PUNISHMENT: LEGAL AND SOCIAL SCIENCE APPROACHES 177, 208 (K. Haas & J. Inciardi eds. 1988) ("The parsimonious explanation for the failure of social science data to influence the Court in death penalty cases seems to be that the outcome of these cases is frequently a foregone conclusion.").

²⁶⁹ Just last term the Court decided *Hodgson v. Minnesota*, 110 S. Ct. 2926 (1990) and *Ohio v. Akron Center for Reproductive Health*, 110 S. Ct. 2972 (1990), two abortion cases replete with value judgments masquerading as factual assertions. In *Hodgson*, the Court struck down Minnesota's two-parent notification requirement when implemented without a judicial bypass procedure but upheld the two-parent requirement when it was accompanied by such a procedure. In reaching its holdings in these two cases, the Court relied considerably on normative constitutional fact-finding. Many examples could be provided, but the most telling might be the

In *Brown* and *Roe*, for instance, facts gave shape to constitutional law. As a measure of reality, however, these facts were only an approximation. As illustrated clearly by *Ballew*, *Barefoot*, and *Parham*, the Court's factual assertions depended not on real world circumstances, but rather on constitutional necessities. Facts were things to be integrated (and sometimes manipulated) into the constitutional fabric that already existed. But the Court's fictions were destined to come into conflict with reality. In *Lockhart* and *McCleskey* the inevitable occurred when the Court's "facts" came face to face with the real things. The Court responded by avoiding reality again, seeking safety in an altered constitutional structure. As the next section demonstrates, such flight does not guarantee safe harbor.

III. SCIENTIFIC FACT AND CONSTITUTIONAL LAW: SCIENCE AS A RESTRAINING FORCE

The previous two sections explored the prevalence of fact-finding as a marker on the path of constitutional interpretation. Those sections sought to illustrate how facts combine with and substitute for the normative judgments and other authorities that shape the text. In order to be a true interpretive instrument, however, fact-finding must not only guide the Court, it must also restrain the Court. Sources of interpretation provide the authority for constitutional law-making and, at the same time, establish parameters by which to measure the Court's decisions. The principal objection to the claim that facts restrain the Court's discretion can be found in the last section's demonstration of how readily the Court manipulates, misunderstands, and ignores

following from *Akron Center*:

A free and enlightened society may decide that each of its members should attain a clearer, more tolerant understanding of the profound philosophic choices confronted by a woman who is considering whether to seek an abortion. Her decision will embrace her own destiny and personal dignity, and the origins of the other human life that lie within the embryo. The State is entitled to assume that, for most of its people, the beginnings of that understanding will be within the family, society's most intimate association. It is both rational and fair for the State to conclude that, in most instances, the family will strive to give a lonely or even terrified minor advice that is both compassionate and mature.

Akron Center, 110 S. Ct. at 2983-84. Justice Blackmun, writing in dissent, observed otherwise: "Where trust and confidence exist within the family structure, it is likely that communication already exists." *Id.* at 2990 (Blackmun, J., dissenting).

empirical research. How can data so easily avoided be a viable restraint? Facts can be stubborn things, however, and when supposititious they can infect the probity of the final result. The Court's legitimacy depends on such probity. It is in this way that empirical research restrains the Court.

As the only unelected branch of the federal government, the judiciary must constantly reflect upon its own legitimacy. Alexander Hamilton observed in *Federalist No. 78* that the judiciary has "neither Force nor Will, but merely judgment."²⁷⁰ The Court's efficacy depends on the public being persuaded by its judgments. Although the Court is acutely aware of this lesson, it still regularly exhibits much maneuverability when reading the Constitution. But discretion is a necessary part of every judge's job description. The value of a restraining principle lies in its cabining that discretion, not eliminating it. The Court retains legitimacy only so long as it remains within accepted bounds when exercising its discretion. Empirical research assists in the definition and enforcement of those boundaries.

A. *Bringing Empirical Research to Bear*

Sources of interpretation restrain to the extent they provide a degree of external control over the Court's proclamations. In order to demonstrate the restraining effect of empirical data, however, it need not be shown that the Court consistently heeds that data. Given the previous discussion, such a showing would not be possible in any event. The value of science as a check on discretion must be compared to the value of the traditional sources of authority. Sources of authority restrain fairly modestly, typically by establishing the grounds for debate and the boundaries beyond which the Court may not venture. Much interpretive leeway remains.

In order to be effective, empirical research must be brought to the judiciary's attention through critical commentary which has substance, i.e., there must be a "there there."²⁷¹ Principally,

²⁷⁰ THE FEDERALIST No. 78, at 523 (A. Hamilton) (J. Cooke ed. 1961).

²⁷¹ My thanks to Gertrude Stein for the phrase and my apologies to the city of Oakland, California for using it:

She took us to see her granddaughter who was teaching in the Dominican convent in San Raphael, we went across the bay on a ferry, that had not changed but Goat Island might just as well not have been there, anyway what was the use of my having come from Oakland it was not natural to have come from there yes write about it if I like or anything if I like but not

interpretive sources restrain through critical debate—commentary by dissenting Justices, scholars, politicians, the press, and the general public—a dialogue which influences acceptance of the Court's rulings. As compared to the traditional authorities, empirical research possesses much substance and has as much potential to contribute to constitutional law-making.

1. Critical Commentary

The value of science as a check on discretion must be compared to the traditional sources of interpretation. The Court is often accused of mishandling the constitutional text, the framers' original intent, precedent, constitutional scholarship, and contemporary values. The critical response which routinely follows these alleged errors surely influences the Court.²⁷² In a very real sense, commentators carry on a dialogue with the Court. Although in any one opinion the Court obviously cannot satisfy all of its critics, critical commentary undoubtedly influences subsequent cases.²⁷³ The Court's ignorance of, or disdain for, science similarly leads to scholarly attempts to educate the Justices, which in some measure influence their later decisions. In this way, science functions like the other sources of interpretation in shaping the contours of the Constitution.

Whenever the Justices misuse empirical research, they become the subjects of significant criticism.²⁷⁴ In fact, such critical review has probably made the Justices nervous about delving into the

there, there is no there there.

G. STEIN, *EVERYBODY'S AUTOBIOGRAPHY* 289 (1st ed. 1937).

²⁷² See generally White, *The Evolution of Reasoned Elaboration: Jurisprudential Criticism and Social Change*, 59 VA. L. REV. 279, 291-96 (1973) (discussing critical response and Warren Court decisions).

²⁷³ See generally Fuld, *A Judge Looks at the Law Review*, 28 N.Y.U. L. REV. 915, 918 (1953) (noting the importance of law review commentary); Hoffman, *Law Reviews and the Bench*, 51 NW. U.L. REV. 17, 18 (1956) (same); Martin, *The Law Review Citadel: Rodell Revisited*, 71 IOWA L. REV. 1093, 1095-96 (1986) (arguing that law review articles play a major role in judicial opinions); Newland, *Legal Periodicals and the United States Supreme Court*, 7 U. KAN. L. REV. 477, 478-79 (1959) (noting the frequency of citation of law review articles in Supreme Court decisions); Warren, *Upon the Tenth Anniversary of the UCLA Law Review*, 10 UCLA L. REV. 1, 2 (1962) (noting the importance of law review criticisms).

²⁷⁴ See, e.g., Bersoff, *supra* note 27, at 155 (criticizing the Court's use of social science in the "death-qualification" cases); Ellsworth, *supra* note 268, at 194-204 (same); Kaye, *supra* note 150, at 1007-08 (criticizing the Court's use of social science in the jury size cases); Thompson, *supra* note 210, at 195-98 (criticizing the Court's use of social science in the "death-qualification" cases).

niceties of research methodology at any time. Justice Brennan reflected this concern in *Craig v. Boren*,²⁷⁵ when he remarked that "[i]t is unrealistic to expect either members of the judiciary or state officials to be well versed in the rigors of experimental or statistical technique."²⁷⁶ Perhaps the Justices cannot be expected to be experts, but certainly they must have a working knowledge of these techniques. As Oliver Wendell Holmes understood nearly one hundred years ago: "For the rational study of the law the black-letter man may be the man of the present, but the man of the future is the man of statistics and the master of economics."²⁷⁷ Holmes has been proved correct. Too much of the Court's docket requires a knowledge of empirical techniques for the Court to continue pleading *non sum informatus*.

Ultimately, persistent misapplication of empirical data undermines the Court's legitimacy.²⁷⁸ Foremost, the Court itself will be reproached for failing to answer the evidence which contradicts its vision of reality. Empirical research is simply not that difficult to understand. Indeed, the Court has repeatedly demonstrated the aptitude to use statistical data²⁷⁹ as well as to understand the essence of the scientific method.²⁸⁰ Furthermore, rulings which rest on suspect factual bases will themselves be suspect. Holdings resting on faulty premises have little or no persuasiveness, for they lack rationality—the source of judicial power.

Still, the social sciences, the disciplines which supply most of the legally relevant empirical research, are the subject of much criticism for being less than "scientific." Without question, much social inquiry dressed in the guise of science has little value as science and ought to play a very small role, if any, in legal decision-making.²⁸¹ In principle, however, the social sciences can be as objective and scientific as their more heralded cousins, the natural sciences.²⁸²

²⁷⁵ 429 U.S. 190 (1976).

²⁷⁶ *Id.* at 204.

²⁷⁷ Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 469 (1897).

²⁷⁸ See A. BICKEL (2d ed. 1986), *supra* note 5, at 27.

²⁷⁹ See, e.g., *Wards Cove Packing Co. v. Atonio*, 109 S. Ct. 2115, 2121-22 (1989) (rejecting petitioner's statistics for failure to use the proper sample population); *Castaneda v. Partida*, 430 U.S. 482, 495-96 (1977) (analyzing statistical disparities between grand jury composition and the surrounding county).

²⁸⁰ Cf. *Edwards v. Aguillard*, 482 U.S. 578, 596 n.18 (1987) (exploring the meaning of the term "creation science").

²⁸¹ See Faigman, *supra* note 14, at 1066-79 (discussing the relevance of suppositional science).

²⁸² See *id.* at 1026-51.

More importantly, empirical research can be evaluated on the basis of its accuracy which, after all, should be the criterion of effective fact-finding. Ultimately, the vitality of any constitutional authority, including fact-finding, turns on its substantive content.

2. Is There a "There There"?

It is instructive to compare empirical research to the two most accepted sources of interpretation, the text and original intent.²⁸³ The efficacy of the text and original intent in establishing boundaries is inversely related to the amount of ambiguity they contain. The greater the consensus regarding the definition of the words used or the intended meaning of those who drafted the words, the less the Court is able to depart from that meaning. The more certain and more objective the information relevant to a particular interpretation, the less the Court is able to do what it pleases. For example, only the rare commentator suggests that the Court should not read literally the requirement in article II that the President "shall have attained . . . the age of thirty five years;"²⁸⁴ the Court's failure to read the clause literally would seriously undermine its legitimacy. Conversely, words loaded with ambiguity, such as "due process" and "equal protection," impart little authoritative guidance and permit the Court substantial interpretive leeway.

²⁸³ The Court consistently expresses fidelity to the text, *see sources supra* note 1, as well as to the framers' original intent respecting the text. *See* tenBroek, *Use by the United States Supreme Court of Extrinsic Aids in Constitutional Construction*, 27 CALIF. L. REV. 399, 399 (1939) (stating that the Court "has insisted, with almost uninterrupted regularity, that the end object of constitutional construction is the discovery of the intention of those persons who formulated the instrument"). In addition, virtually all scholars agree that the text, and most agree that original intent, are relevant to interpreting the Constitution. Recently, however, Professor H. Jefferson Powell sparked a stirring debate by arguing that the framers did not intend future interpreters to heed their personal intentions. *See* Powell, *The Original Understanding of Original Intent*, 98 HARV. L. REV. 885 (1985). *But see* Berger, "Original Intention" in *Historical Perspective*, 54 GEO. WASH. L. REV. 296 (1986) (attempting to refute Powell's claims). For further debate on the issue, *see* Berger, *The Founders' Views—According to Jefferson Powell*, 67 TEX. L. REV. 1033 (1989); Powell, *The Modern Misunderstanding of Original Intent* (Book Review), 54 U. CHI. L. REV. 1513 (1987) (reviewing R. BERGER, *FEDERALISM: THE FOUNDERS' DESIGN* (1987)).

²⁸⁴ U.S. CONST. art. II, § 1, cl. 5. At least one commentator has suggested that the thirty-five-year age requirement need not be read literally. *See* Peller, *The Metaphysics of American Law*, 73 CALIF. L. REV. 1151, 1174 (1985) ("It is possible the age thirty-five signified to the Framers a certain level of maturity rather than some intrinsically significant number of years. If so, it is open to argument whether the translation in our social universe of the clause still means thirty-five years of age.").

The same relationship between ambiguity and authority pertains to original intent. The classic example of this connection occurred in the desegregation litigation of *Brown v. Board of Education*. An intermediate court asked both sides for further argument on the intention of the framers of the fourteenth amendment regarding public school segregation.²⁸⁵ Volumes of historical scholarship were offered by the litigants. The historians, however, could not reach consensus on the matter. The Court later dismissed these materials, stating, "At best, they are inconclusive."²⁸⁶ Ironically, perhaps, the Court then turned to empirical research for its authority.²⁸⁷

On the whole, traditional sources of authority contain great areas of ambiguity. Empirical research shares this failing. Especially in the realm of social inquiry, research remains very uneven. Many studies contain important and accurate information that the law can rely upon; at the same time, much social research has little or no value. Moreover, many legal-empirical questions are very difficult to study or are not amenable to scientific scrutiny at all. Nevertheless, in comparison to the other sources of authority, empirical research fares quite well.

Science has one main advantage over the other sources of interpretation: replicability. The validity of hypotheses about the world of constitutional facts does not depend on "plain meaning," the materials discovered in historical archives, logical argument, or moral persuasion.²⁸⁸ The validity of a factual statement depends on its amenability to testing and its having survived tests designed to falsify it.²⁸⁹ Whereas the ambiguity of the drafters' intent

²⁸⁵ See *Brown v. Board of Educ.*, 345 U.S. 972 (1953) (miscellaneous orders).

²⁸⁶ *Brown v. Board of Educ.*, 347 U.S. 483, 489 (1954).

²⁸⁷ See *supra* notes 91-95 and accompanying text.

²⁸⁸ See Munzer, *Realistic Limits on Realist Interpretation*, 58 S. CAL. L. REV. 459, 465 (1985) ("[S]cientific investigation seems different from moral inquiry. It would be strange for a person who believes in objective moral truth to speak of formulating hypotheses and devising experiments to confirm or falsify them."). See generally Moore, *Moral Reality*, 1982 WIS. L. REV. 1061 (discussing whether there is moral reality, and if there is, how one finds it).

²⁸⁹ Many statements purport to describe reality, so some criterion is needed to distinguish between scientific-objective and nonscientific-subjective statements. This has been called the "problem of demarcation." K. POPPER, CONJECTURE AND REFUTATIONS: THE GROWTH OF SCIENTIFIC KNOWLEDGE 39 (1963). According to Popper, "the objectivity of scientific statements lies in the fact that they can be *inter-subjectively tested*." K. POPPER, *supra* note 25, at 39. A subjective view of reality, or hypothesis, attains objectivity through systematic test or, stated another way, attempts to falsify it. In short, "an idea . . . acquires scientific status only when it [can be] . . . falsified."

might continue because of documents lost or never prepared, ambiguity about constitutional facts can be reduced by more and better research. Does the race of the victim affect capital sentencing? This question, just like innumerable others, can be subjected again and again to scientific inquiry. If the Baldus study contains flaws that undermine its credibility, new research can be conducted without those flaws. This lesson is the essence of the scientific process. To be sure, most legal-empirical questions will never be resolved fully, and much ambiguity will remain following even the most sophisticated research program.²⁹⁰ But absolute certainty has never been a criterion for constitutional decision-making. Empirical research only assists, just as the traditional authorities do, in the navigation of the enigmatic pathways of the Constitution.

B. *The Extra-Textual Authority of Empirical Research*

The claim here is not that empirical research will ever mandate particular textual interpretations. This feature somewhat distinguishes fact-finding from the other sources of interpretation—but not by very much. Obviously, the text sometimes dictates particular results and original intent might occasionally do the same. These occurrences are rare, however, and in general the importance of the several sources of interpretation lies in the dynamic they create between the Court, the Constitution, and society. In this way, fact-

K. POPPER, *supra*, at 37. A theory's value can be measured only by its success at describing or predicting events whose observation corroborates it. Theories, however, can never be *proven* true, because observations consistent with one theory may be accounted for by an alternative theory with greater explanatory power. On the other hand, theories can be falsified when observations depart significantly from expectation. In sum, the *status* of a statement as scientific depends on its amenability to test; the *merit* of a scientific statement depends on the degree to which it has survived attempts at falsification.

²⁹⁰ Much disagreement exists within the social science community concerning the value of various empirical methods. Of course, in this regard, social scientists do not differ significantly from experts who research the traditional sources of constitutional authority. Whether concerned with interpreting literary texts, or searching for historical facts, or identifying causes of human behavior, the methods scholars use within their respective disciplines differ markedly. Still, every discipline contains methodological guidelines which establish boundaries of acceptable scholarship. Indeed, given the nature of their enterprise, social scientists, as long as they view themselves as *scientists*, must adhere to certain accepted canons of research methodology. See Faigman, *supra* note 14, at 1021-25, 1052-66 (outlining the methods of scientific and pseudo-scientific research and discussing the relevance to the law of findings obtained using these methods); Monahan & Walker, *supra* note 92, at 498-508 (discussing a framework in which the value of empirical research can be assessed).

finding is an integral part of the interpretive calculus. As noted earlier, fact and law in constitutional analysis are bound together as on a "monkey rope."²⁹¹ Tightening or slackening of one necessarily affects the other. There is no better example of this than *McCleskey v. Kemp*.²⁹²

In *McCleskey*, as discussed previously, Justice Powell assumed the validity of the Baldus study, which indicated that defendants who killed whites were 4.3 times as likely to receive a death sentence as defendants who killed blacks. Notwithstanding this fact, the Court upheld *McCleskey's* sentence. The statistics, Powell explained, could not prove "that race was a factor in *McCleskey's* particular case."²⁹³ Yet the eighth amendment had never been interpreted to require such a particularized showing; "a substantial risk that the punishment will be inflicted in an arbitrary and capricious manner"²⁹⁴ was the standard prior to *McCleskey*. In its effort to avoid the lessons of the data, the Court substantially modified prior constitutional doctrine.

The reader might well question how the *McCleskey* Court's seemingly simple sleight of hand evidences social science's restraining influence. The Court still reached the result it desired. But the Court's acceptance of the data forced it to confront the value choices it was making. Throughout its history, the Court has advanced certain facts that, in actuality, substituted for value identification. From *Marbury v. Madison*²⁹⁵ to *Brown v. Board of Education*²⁹⁶ to *Roe v. Wade*,²⁹⁷ the Court's fact-finding has been essentially normative; at bottom, this has meant that the Court would assert facts to support policy-making that could not stand very well on its own. In *Marbury*, Chief Justice Marshall *could* have justified judicial review without implying that the legislature would not discipline itself under the Constitution; in *Brown*, Chief Justice Warren *could* have struck down segregated schools without invoking social science data; and in *Roe*, Justice Blackmun *could* have upheld a woman's right to choose an abortion without relying on medical theories of fetal viability. But in each of these cases, and in scores of others, the Court has found it expedient to invoke factual

²⁹¹ See *supra* note 47 and accompanying text.

²⁹² 481 U.S. 279 (1987).

²⁹³ *Id.* at 308.

²⁹⁴ *Godfrey v. Georgia*, 446 U.S. 420, 427 (1980) (emphasis added).

²⁹⁵ 5 U.S. (1 Cranch) 137 (1803); see *supra* notes 48-58 and accompanying text.

²⁹⁶ 347 U.S. 483 (1954); see *supra* notes 91-122 and accompanying text.

²⁹⁷ 410 U.S. 113 (1973); see *supra* notes 123-42 and accompanying text.

suppositions in lieu of declaring a normative judgment. Undoubtedly, the *McCleskey* Court would have preferred to state that there is no evidence of differential treatment on the basis of race of the victim and that any such systemic discrimination would violate the eighth amendment's ban on cruel and unusual punishments. But the Court could not say this because the data indicated otherwise. In transforming the law in order to achieve the desired outcome, the Court had to confront difficult normative questions.

Although he minimized its import, Powell understood that "the Baldus study indicates a discrepancy that appears to correlate with race."²⁹⁸ This fact had to be addressed. Powell responded with two arguments, both of which can be characterized as products of political necessity. First, Powell observed, "*McCleskey*'s claim, taken to its logical conclusion, throws into serious question the principles that underlie our entire criminal justice system."²⁹⁹ Powell then questioned whether studies demonstrating racially based disparities in other punishments or disparities involving gender would establish eighth amendment claims.³⁰⁰ Powell secondly urged that these sorts of statistical demonstrations "are best presented to the legislative bodies."³⁰¹ "Legislatures," Powell asserted, "are better qualified to weigh and 'evaluate the results of statistical studies in terms of their own local conditions and with a flexibility of approach that is not available to the courts.'"³⁰² The Baldus data thus forced the Court to confront and articulate the actual, albeit difficult, normative bases for its decision.³⁰³ Commentary thereafter can focus, as it should, on the constitutional acceptability of racial bias in capital sentencing. This critical debate might have been lost, or diluted, if the Court had avoided the matter by resting its judgment on a supposed factual basis.

The Court's acceptance of racial bias in capital sentencing, whatever the reasons for so doing, cost the Court politically. The Court's legitimacy depends largely on its perceived integrity. However weighty the normative arguments, permitting this result might be, it is a result not easily reached in view of our constitution-

²⁹⁸ *McCleskey v. Kemp*, 481 U.S. 279, 312 (1987).

²⁹⁹ *Id.* at 314-15. See generally, D. BALDUS, *supra* note 244.

³⁰⁰ See *McCleskey*, 481 U.S. at 315-17.

³⁰¹ *Id.* at 319.

³⁰² *Id.* (quoting *Gregg v. Georgia*, 428 U.S. 153, 186 (1976)).

³⁰³ Arguably, the latter basis for the decision, that the legislatures "are better qualified to weigh and 'evaluate the results of statistical studies,'" *id.*, is in part an empirical assumption as well.

al tradition.³⁰⁴ In forcing the Court to recognize the racial bias in capital sentencing, the data constricted the Court. Because the facts could not be manipulated or ignored, the Court became more accountable for its decision. The data forced the Court to explicate an alternative basis for its judgment—a normative basis rather than an empirical one. This judgment is now subjected to the harsh light of public debate.

Empirical data introduced in one case also affect subsequent decisions. By forcing the Court to identify its value choices, and when, as in *McCleskey*, these choices lie at the fringes of legitimacy, empirical data restrict the Court's judgments in subsequent cases by exposing the thinness of the authority supporting its precedent. Allowing *McCleskey* to rest on the factual premise that racial discrimination does not permeate capital sentencing decisions would have freed the Court's hand in later cases. Therefore, not only does brute reality force the Court to explain its value choices in a particular case, but it will have a ripple effect through subsequent cases.

This ripple effect has other permutations as well, several of which have profoundly negative connotations. First of all, *McCleskey* affected the strategy that subsequent petitioners must pursue in fourteenth amendment claims, from arguing disparate impact to arguing purposeful discrimination, and eighth amendment claims, from arguing systemic bias to arguing individualized bias. In effect, the Court transformed the inquiry in these cases from legislative fact questions to adjudicative fact questions.³⁰⁵ The transformation from the legislative to the adjudicative also effectively reverses the burdens of proof. If the *McCleskey* Court had accepted the disparate impact principle of venire selection and Title VII cases in its fourteenth amendment analysis, then once the petitioner established a prima facie case of discrimination, the government would bear the burden to explain the discriminatory impact.³⁰⁶ Instead, the Court places the burden of proof on petitioners to demonstrate purposeful discrimination. If the *McCleskey* Court had retained the system-wide perspective of the precedent in its eighth

³⁰⁴ See Bedau, *Someday McCleskey Will be Death Penalty's Dred Scott*, L.A. Times, May 1, 1987, § 2, at 5, col. 1; see also Kennedy, *supra* note 244, at 1388-89 (noting that the Court's decision in *McCleskey* was immediately beset by sharp criticism and, in some instances, outright denunciation).

³⁰⁵ Or, in my lexicon, from "constitutional-review" facts to "constitutional-adjudicative" facts. See *supra* note 36 and accompanying text.

³⁰⁶ See *supra* notes 250-54 and accompanying text.

amendment analysis, the government would bear the burden of identifying a compelling state interest to justify the risks of arbitrary and capricious punishment.³⁰⁷ Instead, the Court placed the burden of proof on petitioners to demonstrate individualized discrimination.

Additionally, the Court's recent tendency to change the law in order to avoid the facts affects a wide range of cases whose only similarity is the constitutional provision from which they emanate. Prior to *McCleskey*, for example, the eighth amendment standard had been concerned with the risk of arbitrary or capricious decisions in the system. After *McCleskey*, the focus is on the particular decision-makers in the petitioner's case. How this new standard will affect other eighth amendment cases remains to be seen.³⁰⁸ For petitioners with eighth amendment claims outside of the *McCleskey* context, *McCleskey* is surely an unwelcome turn of events.

In light of these negative effects, the introduction of empirical research into the *McCleskey* litigation might very well be characterized as a disaster. In the process of transforming the law to avoid the facts, the Court now accepts racial bias in capital sentencing, petitioners now effectively carry the burden of proof, and the former eighth amendment protections now are in doubt. These results are far from what the researchers intended.³⁰⁹ But the influence, as well as the value, of empirical research cannot be measured in individual cases.

Taking a narrow view of *McCleskey* and similar cases, empirical research might indeed 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. In *McCleskey* itself, the Court struggled to come to terms with the implications of racial bias in capital sentencing. This struggle might have been buried in factual suppositions if not for the data. Further, although *McCleskey*

³⁰⁷ See *supra* note 257 and accompanying text.

³⁰⁸ It is still too early to measure the effect of *McCleskey* outside the specific context of that case. One decision that suggests the possible impact of *McCleskey* is *Fuller v. Georgia State Bd. of Pardons & Paroles*, 851 F.2d 1307 (11th Cir. 1988). The *Fuller* court rejected statistical evidence indicating that the Georgia Parole Board paroled white convicted rapists more often than black convicted rapists. The statistical evidence, the court held, was "clearly insufficient to support an inference that any of the decisionmakers . . . acted with discriminatory purpose." *Id.* at 1310 (quoting *McCleskey*, 481 U.S. at 297).

³⁰⁹ See D. BALDUS, *supra* note 244, at 310.

changes the landscape of eighth amendment litigation, this outcome exerts pressure on the Court. The costs associated with transforming a whole body of law to accommodate inconvenient facts create an obstacle to unbridled discretion. By preventing the Court from inventing convenient facts, empirical research compels the Court to face up to the ramifications of its constitutional law-making.

CONCLUSION

In *Craig v. Boren*, Justice Brennan observed that "proving broad sociological propositions by statistics is . . . in tension with the normative philosophy that underlies the Equal Protection Clause."³¹⁰ This tension, which extends to every corner of the Constitution, largely explains the Court's normative approach to questions of constitutional fact. From the start, facts, together with the text, original intent, precedent, constitutional scholarship, and contemporary values, have served as authority for the Court's explication of the Constitution. Yet, essentially, interpreting the Constitution is a normative enterprise. Not surprisingly, therefore, in "finding" facts, the Court's vision often has been affected by the outcome it sought. Facts were molded into the fabric of the Constitution itself, not as empirical reality but as legal imperative. Through most of its history, the Court could manipulate facts in this fashion with impunity. Although many might have disagreed with the particular factual findings, no one could prove the Court's observations wrong.

Today, much has changed. Researchers armed with volumes of data regularly challenge the Court's factual statements. The Court so far has responded to this challenge using the same strategy it has always employed, viewing facts according to its vision of the Constitution, rather than according to reality. This strategy has limited efficacy, for the Court's empirical myopia ultimately undermines its political legitimacy.

When the Court's factual observations depart from reality, the rules attached to those observations become suspect. Empirical research places an especially cogent check on judicial decision-making by clarifying the factual premises upon which legal judgments are based. If the Court rests a legal judgment on a factual basis that empirical research indicates does not exist, the Court must choose an alternative basis to support the rule or suffer the

³¹⁰ *Craig v. Boren*, 429 U.S. 190, 204 (1976).

slings and arrows of critical comment. If the Court decides to retain the outcome and, to avoid appearing ignorant on the facts, transform the legal rule, it must elaborate an alternative basis that will support the decision. By not having the convenience of sculpting the facts of each case, the Court is made more accountable for its decisions. This accountability restrains the Court's constitutional discretion.

Constitutional law-making inevitably involves the exercise of considerable discretion. The Constitution supplies merely a map of necessary destinations and a rather incomplete outline of the roads needed to reach them. Reading this map requires consulting a variety of authorities, none of which alone dictates the best road to follow. Ultimately, the value of any constitutional authority is measured by its capacity to keep the Court from getting lost. Using this criterion, fact-finding serves as an important compass for directing the Court in its constitutional travels.