Science and Constitutional Fact Finding in Equal Protection Analysis

ANGELO N. ANCHETA*

I. INTRODUCTION

The Supreme Court's multiple opinions and divergent analyses in *Parents Involved in Community Schools v. Seattle School District No. 1*[1] reflect deep-seated tensions in equal protection law and the meaning of racial equality. A plurality led by Chief Justice Roberts, joined by Justice Kennedy, formed the five-member majority that voted to strike down race-conscious voluntary desegregation plans in Seattle, Washington and Louisville, Kentucky as violations of the Equal Protection Clause. Justice Breyer, joined by three other Justices in dissent, would have upheld the student assignment plans as constitutional. The Court's dividing lines in *Parents Involved* are extensive, revealing disagreements over the appropriate standard of review to evaluate voluntary desegregation plans,[2] the meaning and valuation of racial diversity as a governmental interest,[3] and the fitness of racial classifications

---

* Assistant Professor of Law, Santa Clara University School of Law. Although I attempt in this Essay to provide an evenhanded analysis of recent U.S. Supreme Court cases, I have participated as an attorney in a number of those cases. I served as Counsel of Record for the American Educational Research Association as Amicus Curiae in Support of Respondents in *Parents Involved in Community Schools v. Seattle School District No. 1*, 127 S. Ct. 2738 (2007), and as Counsel of Record for the American Educational Research Association et al. as Amici Curiae in Support of Respondents in *Grutter v. Bollinger*, 539 U.S. 306 (2003), and *Gratz v. Bollinger*, 539 U.S. 244 (2003). In each of these instances, the amicus curiae briefs highlighted scientific research findings which supported the use of race-conscious policies to promote diversity in education.

[1] 127 S. Ct. 2738 (2007). The Supreme Court consolidated the *Parents Involved* litigation, which involved a Seattle, Washington school district, with *Meredith v. Jefferson County Board of Education*, No. 05-915, which involved the school district for the metropolitan area of Louisville, Kentucky. *Id.* at 2746.

[2] *Compare Parents Involved*, 127 S. Ct. at 2752 (opinion of the Court) ("As the Court recently reaffirmed, 'racial classifications are simply too pernicious to permit any but the most exact connection between justification and classification.'" (citations omitted)), *with id.* at 2819 (Breyer, J., dissenting) ("The view that a more lenient standard than 'strict scrutiny' should apply in the present context would not imply abandonment of judicial efforts carefully to determine the need for race-conscious criteria and the criteria's tailoring in light of the need.").

[3] *Compare id.* at 2755 (plurality opinion) ("In design and operation, the plans are directed only to racial balance, pure and simple, an objective this Court has repeatedly condemned as illegitimate."), *with id.* at 2797 (Kennedy, J., concurring in part and concurring in the judgment) ("A compelling interest exists in avoiding racial isolation, an interest that a school district, in its discretion and expertise, may choose to pursue.

in assigning students in K–12 educational settings.[4] Moreover, as demonstrated by the stark ideological contrasts between the Roberts plurality and the other Justices in *Parents Involved*,[5] there are profound divisions over whether *Brown v. Board of Education* stands for a strict anti-classification norm of color-blindness or for an anti-subordination ideal that permits color-consciousness to address persistent racial inequality.[6]

Along a separate set of dimensions—more methodological than ideological—the *Parents Involved* opinions illuminate another group of differences that have arisen in recent Supreme Court cases. These differences focus on the role of scientific research findings in the development of standards and rules under the Equal Protection Clause. In *Parents Involved*, the Roberts plurality and Justice Kennedy formed the bloc that struck down the Seattle and Louisville desegregation policies, but neither the Roberts opinion nor the Kennedy opinion cited scientific research to support the Court's judgment. On the other hand, Justice Breyer's dissenting opinion relied heavily on scientific findings on the benefits of diversity and the harms

---

Likewise, a district may consider it a compelling interest to achieve a diverse student population."), *and id.* at 2820 (Breyer, J., dissenting) (describing compelling interest as "the school districts' interest in eliminating school-by-school racial isolation and increasing the degree to which racial mixture characterizes each of the district's schools and each individual student's public school experience").

[4] *Compare id.* at 2760 (opinion of the Court) ("Classifying and assigning schoolchildren according to a binary conception of race is an extreme approach in light of our precedents and our Nation's history of using race in public schools. . . ."), *with id.* at 2829–30 (Breyer, J., dissenting) ("The upshot is that these plans' specific features . . . together show that the districts' plans are 'narrowly tailored' to achieve their 'compelling' goals.").

[5] *Compare id.* at 2767 (plurality opinion) ("It was not the inequality of the facilities but the fact of legally separating children on the basis of race on which the Court relied to find a constitutional violation in 1954."), *with id.* at 2791 (Kennedy, J., concurring in part and concurring in the judgment) ("School districts can seek to reach *Brown's* objective of equal educational opportunity. . . . To the extent the plurality opinion suggests the Constitution mandates that state and local school authorities must accept the status quo of racial isolation in schools, it is, in my view, profoundly mistaken."), *and id.* at 2798 (Stevens, J., dissenting) ("[I]t was only black schoolchildren who were so ordered; indeed, the history books do not tell stories of white children struggling to attend black schools. In this and other ways, The Chief Justice rewrites the history of one of this Court's most important decisions."), *and id.* at 2800 (Breyer, J., dissenting) ("All of those plans represent local efforts to bring about the kind of racially integrated education that *Brown v. Board of Education*, long ago promised—efforts that this Court has repeatedly required, permitted, and encouraged local authorities to undertake.") (citation omitted).

[6] *See generally* Reva B. Siegel, *Equality Talk: Antisubordination and Anticlassification Values in Constitutional Struggles over* Brown, 117 HARV. L. REV. 1470 (2004) (contrasting color-blind and color-conscious principles in equal protection jurisprudence); Jack M. Balkin & Reva B. Siegel, *The American Civil Rights Tradition: Anticlassification or Antisubordination?*, 58 U. MIAMI L. REV. 9 (2003) (same).

of segregation to argue that the plans were fully constitutional.[7] Justice Thomas's concurring opinion also drew extensively on research findings, but countered the Breyer dissent by arguing that the scientific literature was inconclusive and did not lend sufficient support to the school districts' interests in promoting diversity and addressing racial isolation.[8]

The stances of the Roberts, Kennedy, and Thomas opinions in *Parents Involved* diverge from the approach adopted four years earlier in *Grutter v. Bollinger*,[9] where the Court upheld the constitutionality of race-conscious admissions policies designed to promote student body diversity in higher education. In addressing the question of whether promoting educational diversity could be a compelling interest, Justice O'Connor's majority opinion in *Grutter* cited numerous research studies and amicus curiae briefs that demonstrated the educational benefits of a diverse student body, such as improving academic learning, increasing students' satisfaction with college, and promoting greater cross-racial understanding.[10]

Yet, the opinions of the Court in *Parents Involved* and *Grutter* do not reflect the only approaches taken in recent cases involving equal educational opportunity. They contrast, for example, with the Court's decidedly different tack in *United States v. Virginia*,[11] a 1996 case addressing gender-based segregation in higher education. The *Virginia* Court dismissed expert testimony and scientific evidence in the trial court record that supported a state's interest in maintaining a single-sex military academy.[12] Justice Ginsburg's majority opinion concluded that the state's scientific evidence on gender-based developmental differences and the benefits of single-sex education reflected only generalizations about men and women, and could not justify the exclusion of women from the Virginia Military Institute.

Why do these inconsistencies in the Justices' citation of science appear in recent opinions? Do they reflect the validity or quality of the scientific research? Do they mirror the Justices' divisions in ideology? Do they reflect personal differences in jurisprudence and the appropriate uses of science in constitutional interpretation? Or are they products of judicial rhetoric, with Justices selectively employing—or ignoring—scientific research findings in order to strengthen arguments that support a particular outcome? The questions are significant, not only because they reflect judicial decision making in some of the Court's most controversial cases, but because answers

---

[7] *Parents Involved*, 127 S. Ct. at 2820–24, 2837–42 (Breyer, J., dissenting).

[8] *Id.* at 2776–81 (Thomas, J., concurring).

[9] 539 U.S. 306 (2003).

[10] *Id.* at 330–31.

[11] 518 U.S. 515 (1996).

[12] *Id.* at 549–50.

pointing in a particular direction can strongly influence both civil rights advocacy and new lines of scientific research.

Drawing on *Parents Involved* and other recent equal protection cases, this Article suggests that the differences among the Justices are products of multiple factors, including weaknesses in constitutional fact-finding theory and shifts in the framing of equal protection analyses. While this Articles does not pretend that the courts will take significant steps to reconcile some of the contradictions that have arisen in recent cases, it does propose that modest changes in equal protection analysis can recalibrate judicial inquiries and place research findings in a better position to inform constitutional decision making.

The analysis proceeds in four parts. First, this Article discusses the theoretical underpinnings of the courts' use of science in equal protection litigation. This Article examines theories of fact finding and rules of evidence, as well as critiques of scientific citations in equal protection litigation, drawing on opinions starting with *Brown v. Board of Education* and its well-known citation of psychological and sociological studies documenting the harms of segregation—what the *Brown* Court labeled "modern authority."[13] Second, this Article examine a range of equal protection cases and discuss how constitutional frameworks have shaped both core constitutional values and the gathering of relevant constitutional facts. Third, this Article examine in more detail the *Parents Involved* cases, as well as the underlying science and the citation of studies by advocates. This Article does not attempt to summarize the large body of scientific data available to the Justices in these cases, but I do compare differences in the presentation of the studies to help explain the inconsistent interpretations of the research.[14] Finally, this Article propose that the courts reframe their equal protection analyses to focus on key inquiries that can turn to evidence of appropriate costs and benefits, and that the courts employ explicit evidentiary standards to better inform their analyses of constitutional questions.

II. LAW AND SCIENCE IN CONSTITUTIONAL FACT FINDING

At first glance, the use of relevant facts and scientific findings to help inform constitutional interpretation would seem uncontroversial. If the courts base their decisions in part on social realities—in addition to constitutional

---

[13] 347 U.S. 483, 494 & n.11 (1954).

[14] I rely on doctrinal analysis rather than scientific methods in examining recent case law. For an empirical analysis of the uses of science in the *Parents Involved* case, *see* Roslyn Arlin Mickelson, *21st Century Social Science on School Racial Diversity and Educational Outcomes*, 69 OHIO ST. L.J. 1173 (2008).

text, precedent, history, and other tools of constitutional analysis—should not the factual predicate on which they rely be as accurate and complete as possible, and not be rooted in assumption, supposition, or legal fiction? The answer is more complex than one might expect. Constitutional fact finding is an underdeveloped element of constitutional interpretation and is complicated by the absence of any formal procedural or evidentiary rules that govern the introduction of constitutional facts. Scientific facts in particular engender special problems because of methodological issues and inconsistencies between scientific analyses and the judicial process. I address some of the core questions and dilemmas of constitutional fact finding before turning to a discussion of the Court's recent equal protection cases.

A. *Theories of Fact Finding*

Patterns of judicial fact finding have been bound by the dichotomy between "adjudicative" and "legislative" facts. As first suggested by Kenneth Culp Davis[15] and acknowledged in the Federal Rules of Evidence,[16] adjudicative fact finding refers to the process by which a court gathers evidence used to resolve a specific dispute between parties to a lawsuit; these facts are limited to the immediate parties and no laws are created or changed in the process of adjudicating the dispute. Legislative fact finding, on the other hand, refers to the process by which a court, like a legislative body gathering pertinent information to draft a statute, compiles more general facts not simply to resolve a specific dispute but to establish legal principles that apply to a range of individuals or institutions.[17] *Constitutional* fact finding,

---

[15] *See* Kenneth Culp Davis, *An Approach to Problems of Evidence in the Administrative Process*, 55 HARV. L. REV. 364 (1942).

[16] FED. R. EVID. 201. The advisory committee's note to Rule 201 restates the core difference between adjudicative and legislative facts: "Adjudicative facts are simply the facts of the particular case. Legislative facts, on the other hand, 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." FED. R. EVID. 201 advisory committee's note.

[17] The distinction between adjudicative and legislative facts is justified by the interest in effective judicial policy making. As the advisory committee's notes to the Federal Rules of Evidence make clear: "[J]udge-made law would stop growing if judges, in thinking about questions of law and policy, were forbidden to take into account the facts they believe, as distinguished from facts which are 'clearly . . . within the domain of the indisputable.' Facts most needed in thinking about difficult problems of law and policy have a way of being outside the domain of the clearly indisputable." FED. R. EVID. 201 advisory committee's note.

as I employ the term, is simply that subset of legislative fact finding in which courts gather facts to inform the development of constitutional law.[18]

Both adjudicative and legislative/constitutional facts are often necessary to resolve a constitutional claim. For instance, in addressing whether a race-conscious policy is constitutional, courts employ "strict scrutiny" and inquire into whether the policy advances a compelling interest and whether it is narrowly tailored to that interest.[19] A court must first determine what the policy actually says, to whom it applies, and whether it reflects the true intent of the policy maker—a set of adjudicative facts. If a court has not already determined that the interest is compelling, it can do so by assigning a value to the interest, a value that can be informed by asking whether the interest produces significant social benefits or prevents significant harms. For instance, determining whether an interest in student body diversity in higher education is compelling could rely on legislative facts showing that diversity produces educational benefits and prevents harms such as racial stereotyping.

Several inquiries and facts may affect whether a policy is narrowly tailored, including whether a policy is flexible, whether it is limited in time, whether it unduly burdens third parties, and whether it has been weighed against race-neutral alternatives.[20] For example, whether a particular policy contains time limits or mechanisms for periodic review is an adjudicative fact; the policy in question either does or does not contain the relevant procedures and the court can assess whether it satisfies the constitutional standard. On the other hand, whether a policy maker has engaged in "serious, good faith consideration of workable race-neutral alternatives"[21] may require

---

[18] David Faigman has suggested an additional division of constitutional facts 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. . . . *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.

David L. Faigman, *"Normative Constitutional Fact-Finding": Exploring the Empirical Component of Constitutional Interpretation*, 139 U. PA. L. REV. 541, 553 (1991).

[19] *See, e.g.*, *Parents Involved*, 127 S. Ct. at 2751–52; Johnson v. California, 543 U.S. 499, 505–06 (2005); Grutter v. Bollinger, 539 U.S. 306, 326–27 (2003).

[20] *See Grutter*, 539 U.S. at 334–43; United States v. Paradise, 480 U.S. 149, 171 (1987).

[21] *Grutter*, 539 U.S. at 339.

facts that are both adjudicative (evidence that the policy maker at some point actually considered a set of alternatives) and legislative (evidence of similar types of policies, whether these policies have been workable in practice, and whether they are more effective than race-conscious policies).

Although differences can blur in practice—specific adjudicative facts often have broad legislative effects in precedent-setting cases[22]—the adjudicative-legislative fact distinction is methodologically critical because adjudicative facts are subject to evidentiary rules governing matters such as judicial notice[23] and because a body of federal law addressing the "gatekeeping" of expert testimony limits the entry of science-based adjudicative facts into evidence.[24] Appellate courts normally accept findings of adjudicative fact as given, and only second-guess lower court findings when a review of the record suggests that the findings are clearly erroneous.[25] Legislative or constitutional fact finding, however, carries no such constraints.[26] An appellate court is not bound by a trial court's findings when conducting constitutional fact finding, and the court can rely on the record, new information introduced by the parties on appeal, material

---

[22] For example, in *Grutter v. Bollinger* and *Gratz v. Bollinger*, the specific selection procedures for the race-conscious law school and undergraduate admissions policies at the University of Michigan were adjudicative facts designed to show how the policies worked in practice. In determining the constitutionality of the policies—upholding the law school's policy for using race flexibly but striking down the undergraduate policy for its mechanical uses of race—the Supreme Court established boundaries for what were permissible admissions policies. A set of adjudicative facts had legislative-fact effects because they were employed to produce broad rules of law applicable to university policies nationwide.

[23] *See* FED. R. EVID. 201 (judicial notice of adjudicative facts).

[24] *See* Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 589–98 (1993) (outlining gatekeeping role of federal courts); FED. R. EVID. 702 (codifying *Daubert* standard). Among the factors that trial courts must identify in trying to root out "junk" science are (1) whether a scientific theory or technique has been tested and is falsifiable, (2) whether it has been subjected to peer review and publication, (3) the standards employed for a specific scientific technique and the technique's known rate of error, and (4) the technique's general acceptance within a scientific community. *Daubert*, 509 U.S. at 593–95. *See generally* 60 AM. JUR. *Trials* § 1 (2008) (The *Daubert* Challenge to the Admissibility of Scientific Evidence).

[25] FED. R. CIV. P. 52(a) ("Findings of fact . . . must not be set aside unless clearly erroneous, and the reviewing court must give due regard to the trial court's opportunity to judge the witnesses' credibility.").

[26] *See* FED. R. EVID. 201 advisory committee's note ("[Rule 201] deals only with judicial notice of 'adjudicative' facts. No rule deals with judicial notice of 'legislative' facts. . . . The omission of any treatment of legislative facts results from fundamental differences between adjudicative facts and legislative facts.").

contained in amicus curiae briefs, findings and reports from other governmental bodies, and their own research.[27]

Consistent with the open-endedness of constitutional fact finding, the Supreme Court and other appellate courts searching for constitutional facts have not bound themselves by a set of evidentiary rules, nor do they rely on well-settled burdens of proof, such as the preponderance-of-evidence standard in civil cases or the beyond-a-reasonable-doubt standard in criminal cases. The Supreme Court is not required to test the validity of research findings contained in amicus briefs or reports by other branches of government, and constitutional tests that rely on factual predicates are often vaguely worded and imprecise. Whether an abortion regulation imposes an "undue burden"[28] or whether a governmental interest is a "compelling interest" requires the government to offer evidence in defense of a challenged policy, but the types of facts and the quantum of evidence needed to satisfy these standards are not entirely clear. Any number of facts could be considered germane to the constitutional question.

Despite its importance, constitutional fact finding has not engendered a coherent jurisprudence or led the courts to self-police their use of constitutional facts. As my introductory discussion of equal protection cases suggests,[29] courts may acknowledge key constitutional facts—such as scientific findings on important educational and psychological benefits—but those facts are not necessarily deployed in consistent ways: a judge may rely significantly on constitutional facts (*Grutter* and Justice Breyer's dissent in *Parents Involved*), a similar set of facts may lead to an altogether different legal conclusion (Justice Thomas's concurrence in *Parents Involved*), ostensibly relevant facts can be dismissed as beside the point (*U.S. v. Virginia*), or facts can be omitted or ignored (Chief Justice Roberts's plurality opinion in *Parents Involved*).[30] As David Faigman has aptly

---

[27] The major limitation of this flexibility and open-endedness, however, is that many of the filtering mechanisms inherent in a trial, including evaluating witness credibility and cross-examining evidence, are not employed at the appellate court level.

[28] *See* Planned Parenthood of Southeastern Pa. v. Casey, 505 U.S. 833, 877 (1992) (plurality opinion) ("A finding of an undue burden is a shorthand for the conclusion that a state regulation has the purpose or effect of placing a substantial obstacle in the path of a woman seeking an abortion of a nonviable fetus.").

[29] *See supra* notes 6–11 and accompanying text.

[30] The inconsistency of constitutional fact finding has been well documented in areas such as First Amendment law, criminal procedure, due process, and equal protection law. A general survey of the case law is beyond the scope of this Essay, but is addressed at length in DAVID L. FAIGMAN, LABORATORY OF JUSTICE (2004), and Dean M. Hashimoto, *Science as Mythology in Constitutional Law*, 76 OR. L. REV. 111 (1997). A historical treatment of equal protection cases suggests a serious inconsistency in the Supreme Court's constitutional fact finding, *see* ANGELO N. ANCHETA, SCIENTIFIC EVIDENCE AND EQUAL PROTECTION OF THE LAW 70–125 (2006), as does recent law

summarized it, "the Court's constitutional fact jurisprudence is erratic" and "guided by no comprehensive vision anchored in constitutional theory."[31]

The absence of a consistent theory of constitutional fact finding should not be surprising, though, since there is no overarching theory of constitutional interpretation that guides all of the judiciary. Judges differ markedly on the emphases they place on constitutional text, precedent, history, normative theories, legal scholarship, and other tools of constitutional analysis. And even if a mode of constitutional interpretation predominates, there is no guarantee that the fact-finding process will be identical from issue to issue or from case to case.[32] A judge employing an originalist theory of interpretation, for example, may be content to rely on textual exegesis and "original meaning" as the sole or primary sources of interpretation,[33] and may engage in little or no fact finding on contemporary social conditions. On the other hand, a judge favoring a balancing theory of constitutional rights may conduct extensive fact finding and seek out multiple sources of information in order to identify and weigh the various interests to be balanced against each other.[34]

B. *Science as Constitutional Fact*

As a subset of constitutional facts, scientific research findings merit special attention both because of the special attributes of scientific inquiry and because of the historical role of science in major equal protection cases. *Brown v. Board of Education* and its Footnote Eleven have produced the most commentary,[35] but the complex issues generated by *Brown* resound in

---

review literature examining a range of constitutional law fields, *see, e.g.*, Faigman, "*Normative Constitutional Fact-Finding,*" *supra* note 18, at 584–87 (procedural due process); Lloyd Jeglikowski, Note, *The Implication of Prisoners' Rights Jurisprudence on Racial Segregation in Prisons: The Normative Approach Gives Way to an Empirical Analysis in Selecting a Standard of Review*, 9 RUTGERS RACE & L. REV. 129, 152–57 (2007) (prisoners' rights); Shawn Kolitch, Comment, *Constitutional Fact Finding and the Appropriate Use of Empirical Data in Constitutional Law*, 10 LEWIS & CLARK L. REV. 673, 686–96 (2006) (criminal procedure).

[31] FAIGMAN, LABORATORY OF JUSTICE, *supra* note 30, at 364.

[32] *See* Steven I. Friedland, *The Centrality of Fact to the Judicial Perspective: Fact Use in Constitutional Cases*, 35 CONN. L. REV. 91 (2002).

[33] *See* ANTONIN SCALIA, A MATTER OF INTERPRETATION (1997).

[34] *See* T. Alexander Aleinikoff, *Constitutional Law in the Age of Balancing*, 96 YALE L.J. 943 (1987).

[35] The literature is voluminous, but for a set of more recent analyses of the science in *Brown*, see ANCHETA, *supra* note 30, 42–69; JACK M. BALKIN, WHAT *BROWN V. BOARD OF EDUCATION* SHOULD HAVE SAID 50–53 (2002); FAIGMAN, LABORATORY OF JUSTICE, *supra* note 30, at 161–204; JOHN P. JACKSON, JR., SOCIAL SCIENTISTS FOR SOCIAL JUSTICE: MAKING THE CASE AGAINST SEGREGATION (2001); Michael Heise, Brown v.

an array of constitutional cases. Although *Brown* was not the first equal protection case to invoke scientific findings, the Supreme Court made clear in *Brown* that school segregation deprived black children of equal educational opportunities and that psychological and educational harms were at the core of the constitutional injury: "To separate them from others of similar age and qualifications solely because of their race 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."[36] The Court further stated: "Whatever may have been the extent of psychological knowledge at the time of *Plessy v. Ferguson*, this finding is amply supported by modern authority."[37] *Brown's* Footnote Eleven underscored the Court's finding by citing seven research studies that had been offered by the plaintiffs at trial and in their appellate briefs.[38] Because of the cursory legal analysis in the opinion—the Court cited only a few cases and considered the legislative history of the Fourteenth Amendment to be inconclusive on the question of public school segregation[39]—the science drew heightened attention in an opinion designed more for public consumption than for an explication of constitutional doctrine. Just how important the scientific findings were to the Court's internal decision-making process remains uncertain,[40] but whether

---

Board of Education, *Footnote 11, and Multidisciplinarity*, 90 CORNELL L. REV. 279 (2005); Sanjay Mody, Note, Brown *Footnote Eleven in Historical Context: Social Science and the Supreme Court's Quest for Legitimacy*, 54 STAN. L. REV. 793 (2002).

[36] *Brown*, 347 U.S. at 494. The Court also quoted at length from the *Brown* trial court opinion: "Segregation of white and colored children in public schools has a detrimental effect upon the colored children. The impact is greater when it has the sanction of the law; for the policy of separating the races is usually interpreted as denoting the inferiority of the negro group. A sense of inferiority affects the motivation of a child to learn. Segregation with the sanction of law, therefore, has a tendency to (retard) the educational and mental development of Negro children and to deprive them of some of the benefits they would receive in a racial(ly) integrated school system." *Id.*

[37] *Id.* at 494–95.

[38] *Id.* at 494 n.11.

[39] *Id.* at 489–93.

[40] *See* Mody, *supra* note 35 at 809–14 (comparing arguments on Court's reliance on scientific evidence). It is impossible to confirm the *Brown* Court's internal decision-making processes, but science likely played only a minor role in the Court's drafting of the *Brown* opinion. Indeed, Chief Justice Warren was once quoted as saying that it was "only a note, after all." RICHARD KLUGER, SIMPLE JUSTICE 706 (1976). Moreover, the law clerk responsible for preparing the footnote has stated that it "wasn't anything anybody thought about, and nobody raised any question about it at the Court." ED CRAY, CHIEF JUSTICE: A BIOGRAPHY OF EARL WARREN 285 (1997) (quoting Richard Flynn). The Court's citation of "modern authority" in *Brown* seems largely designed to provide support for refuting some of the factual predicates of *Plessy v. Ferguson*, namely that separation of the races caused no harms and that inherent "racial instincts" and

real or perceived, the centrality of science in the *Brown* opinion engendered multiple questions and problems that remain relevant in contemporary constitutional fact finding.

One problem revolves around contingency—relying on science as a primary authority to support a constitutional ruling. Putting stock in scientific findings as a source of authority presumes that the findings will provide useful and relevant information and that the findings have been generated through valid scientific methods. Yet, the studies in Footnote Eleven have been criticized for having methodological weaknesses and for not isolating school segregation as the cause of the harm to black children.[41] A leading criticism of *Brown* is that the Court constructed its ruling not on a bedrock of constitutional doctrine but on a "flimsy foundation"[42] of questionable science. Moreover, because psychological and sociological research are subject to updating and reformulation, relying on science could leave the case open to being modified or even overruled if the key findings were to be later refuted. As Edmond Cahn, a supporter of *Brown*, stated soon after the decision:

> Today the social psychologists . . . are liberal and egalitarian in [their] basic approach. Suppose, a generation hence, some of their successors were to revert to the ethnic mysticism of the very recent past; suppose they were to present us with a collection of racist notions and label them "science." What then would be the state of our constitutional rights?[43]

Although it is doubtful that the Supreme Court would ever revisit *Brown* because of new scientific research,[44] the problem is clear: constitutional

---

"distinctions based upon physical differences" were beyond the pale of government regulation. Plessy v. Ferguson, 163 U.S. 537, 551 (1896).

[41] For instance, the well-known "doll study" conducted by Kenneth Clark, which focused on the response of African-American children to white versus black dolls, suffered from undersized samples and revealed data that actually contradicted the claim that children in segregated schools had lower self-esteem and attributed stronger positive qualities to the white dolls. Children in Northern schools actually preferred the white dolls to the black dolls at a higher rate than children in Southern schools, which was a finding inapposite to the plaintiffs' claim that segregation led to psychological harms. *See* Edmund Cahn, *Jurisprudence*, 30 N.Y.U. L. REV. 150, 161–65 (1955).

[42] *Id.* at 157–58.

[43] *Id.* at 167.

[44] The lower federal courts confronted this problem less than ten years after *Brown* in *Stell v. Savannah-Chatman County Board of Education*, 220 F. Supp. 667 (S.D. Ga. 1963), *rev'd*, 333 F.2d 55 (5th Cir.), *cert. denied*, 379 U.S. 933 (1964), where a federal trial court refused to enjoin a Georgia school district from operating a segregated system because scientific evidence presented by the defendants suggested that segregation did not, contrary to the findings in *Brown*, cause harm to black students. The trial court even

principles can be destabilized if they are based largely on a factual predicate that is subject to significant revision.[45]

Additional problems revolve around the question of objectivity. The utility of scientific information lies in its being produced through systematic and objective methods that attempt to minimize bias. Yet, science cannot be isolated from social context, and dominant ideologies can pervade both law and scientific research. During the nineteenth century, physical differences between blacks and whites, such as cranial dimensions and brain size, were scientifically measured and chronicled, while theories of social evolution were employed to enforce racial separation.[46] Consistent with the science of the day, the Supreme Court's decision in *Plessy v. Ferguson* turned to customs rooted in "racial instincts" to uphold segregation laws that merely codified the natural order. [47] By the mid-twentieth century, however, as both societal and scientific values evolved, a less discriminatory science emerged that was consistent with the *Brown* Court's ruling.[48] Nonetheless, issues of objectivity continue to persist, and scientific research can still be questioned for containing biases in the selection of questions and the methodologies employed; in the worst cases, researchers can be accused of reaching only those conclusions to which they may already be predisposed.

---

went so far as to find that desegregation had caused more harm than good. *Id.* at 684. On appeal, the Fifth Circuit rejected the trial court's reasoning, making clear that the lower court was bound by *Brown*: "We do not read the major premise of the decision of the Supreme Court in the first *Brown* case as being limited to the facts of the cases there presented. We read it as proscribing segregation in the public education process on the stated ground that separate but equal schools for the races were inherently unequal." 333 F.2d 55, 61 (5th Cir. 1964). The Fifth Circuit concluded that the Supreme Court had articulated an enduring principle that was not dependent on the adjudicative facts of *Brown* or its companion cases.

[45] A different problem arises when there is little or no scientific research bearing on a constitutional question: in the absence of scientific findings, can a court's decision command the same degree of legitimacy? The absence of an extant authority, whether it is scientific, precedential, or historical, is unlikely to prevent a court from reaching a conclusion of law, even if that conclusion is based on commonsensical knowledge, on assumptions, or on suppositions yet unproved. Nonetheless, establishing a contingent relationship between science and the law can lead an appellate court down different procedural paths that can affect the outcome of a case—the court can render the decision with the available information, it can order reargument to supplement the information, or it can remand the case to augment the record.

[46] *See* ANCHETA, *supra* note 30, at 20–27.

[47] *Plessy*, 163 U.S. at 551.

[48] JACKSON, JR., *supra* note 35 at 17–59. Nonetheless, a countervailing "segregation science" soon emerged after *Brown* and played roles in later litigation to defend Jim Crow policies in education and other sectors of Southern life. *See generally* JOHN P. JACKSON, JR., SCIENCE FOR SEGREGATION: RACE, LAW, AND THE CASE AGAINST BROWN V. BOARD OF EDUCATION (2005).

The adversarial process further complicates problems of objectivity. The expert witnesses for the *Brown* plaintiffs worked closely with the civil rights litigators and their clients to develop an extensive record of evidence, and the researchers no doubt shared core values with the plaintiffs and their lawyers in seeking to overturn the separate-but-equal doctrine. While affiliation does not necessarily imply bias in the science, the taint of partiality can arise if research is sponsored by or entangled in advocacy efforts. And problems can be even more serious in appellate advocacy, with the limited filtering that occurs in constitutional fact finding. Appellate advocates, including amici curiae, are not bound by assessments of credibility and cross-examination that occur at trial, and can slant research findings in service of their core legal arguments.[49]

Another set of issues revolves around questions of judicial capacity. By citing to science rather than precedent or legislative history, the *Brown* Court "opened itself up to charges that it went beyond its own competence and may have therefore misinterpreted the materials."[50] The Court did not discuss the scientific research in its opinion, so it is unclear whether the members of the Court fully comprehended the strengths and weaknesses of the studies. But even if the *Brown* Court's understanding of the research was accurate, the underlying question persists: Given the technically complex and often contested nature of scientific research, do courts have the competency and capacity to invoke scientific findings in constitutional analysis?

Science and law operate in markedly different realms, and many of the methods typical of scientific research—inductive reasoning, hypothesis testing, probabilistic and statistical analyses—differ greatly from the methods of lawyers and the judiciary, who are more accustomed to argumentation rooted in clearly defined rights, narrative presentations of information, and

---

[49] For a recent example of extensive and competing amicus curiae briefs outside of the equal protection context, see *District of Columbia v. Heller*, 128 S. Ct. 2783, 2854–61 (2008) (Breyer, J., dissenting) (discussing competing empirical studies and briefs in the area of gun control). In *Exxon Shipping Co. v. Baker*, a case addressing limits on punitive damage awards, Justice Souter noted in his majority opinion that the Court would not rely upon a body of research examining the predictability of punitive awards because the studies had been funded partly by Exxon, one of the parties. 128 S. Ct. 2605, 2626 n.17 (2008) ("The Court is aware of a body of literature . . . examining the predictability of punitive awards by conducting numerous 'mock juries,' where different 'jurors' are confronted with the same hypothetical case. . . . Because this research was funded in part by Exxon, we decline to rely on it.") (citations omitted). It is unclear whether the Supreme Court or the lower courts will presume in future litigation that litigant-funded research, regardless of its soundness or quality, should not be relied upon because it may be biased.

[50] LUCAS A. POWE, JR., THE WARREN COURT AND AMERICAN POLITICS 42 (2000).

the adversarial process.[51] Indeed, most scientific studies are designed primarily for other researchers as contributions to an aggregating literature, and assessing studies and their methodologies critically—such as asking whether sampling techniques are sound, probing for selection biases, or evaluating researchers' ultimate conclusions—can be daunting even for the well-trained.[52] Yet, science's strength as a special source of knowledge draws on its distinctiveness from law, drawing on methodologies that ostensibly transcend the value-laden nature of litigation and appellate advocacy. But if judges do not apprehend or carefully investigate the science, or if they rely on the advocates' presentation of information with an uncritical eye, scientific authorities may be errantly cited or dismissed.

Finally, because scientific information can carry special weight as an extralegal authority, there is a danger that advocates and the courts will invoke science solely for rhetorical purposes. Describing the science in *Brown*, Scott Brewer has stated: "Writing in the third century in which science enjoyed its ascendancy over religion as the dominant cultural authority, the Court might reasonably have sought to invoke social-scientific expertise to provide cultural authority for its profoundly controversial decision."[53] Dean Hashimoto has similarly proposed that science's role in constitutional law takes on largely mythological dimensions, with scientific facts serving not as guides to particular results but as "reassuring symbols to demonstrate that the legal rule is in harmony with our society's culture";[54] the *Brown* Court could thus invoke "an empirical symbol that invited whites to be helpful. It did not criticize whites for their biases, but invited sympathy for the plight of black children."[55]

Although rhetorical theories may accurately describe many legal citations of science, the troubling implication is that the quality and soundness of the underlying scientific findings can be irrelevant to their

---

[51] *See* Linda R. Tropp et al., *The Use of Research in the Seattle and Jefferson County Desegregation Cases: Connecting Social Science and the Law*, 7 ANALYSES OF SOC. ISSUES & PUB. POL'Y 93, 109–14 (2007) (addressing differences in approaches between judiciary and researchers).

[52] *See* David L. Faigman, *To Have and Have Not: Assessing the Value of Social Science to the Law as Science and Policy*, 38 EMORY L.J. 1005, 1026–39 (1989).

[53] Scott Brewer, *Scientific Expert Testimony and Intellectual Due Process*, 107 YALE L.J. 1535, 1557 (1998); *see also* Mody, *supra* note 35, at 828 ("[T]he rise of social science as an accepted discipline of knowledge was a background condition that formed part of the Warren Court's perception of the world. The members of the *Brown* Court, from this perspective, were themselves seduced by the exalted claims of social science in the middle of the twentieth century. Footnote Eleven was a consequence of ordinary human intuition, not grand strategy.")

[54] Hashimoto, *supra* note 30, at 150.

[55] *Id.* at 143.

citation; quoting science may serve only as an *argumentum ad verecundiam*—a simple appeal to authority. And an equally serious problem can arise if a court chooses to selectively ignore relevant research findings that are unsupportive of a legal position, while citing others that are supportive, even if all of the relevant studies are methodologically valid—what might be called a "cherry picking" approach to citation. If the omitted or discounted evidence is prominent and widely circulated, a court's disingenuousness in failing to cite relevant findings could undermine the legitimacy of its ruling.

Despite these multiple dilemmas, scientific findings can and should play important roles in reinforcing (or perhaps questioning) that legal precedents and principles are still applicable,[56] in informing the values that animate constitutional principles and theories,[57] and in answering specific inquiries about social realities that can address central questions of constitutional

---

[56] Precedent should not be supplanted by science, but relevant findings can help determine whether a precedent should still be applicable to a new set of circumstances; the scientific predicate might suggest a revision of precedent or simply distinguish it from the present set of facts. For example, in *Roper v. Simmons*, 543 U.S. 551 (2005), the Supreme Court ruled that the constitutional prohibition on cruel and unusual punishment banned the death penalty for crimes committed before a defendant was eighteen years of age, overruling the Court's 1989 decision in *Stanford v. Kentucky*, 492 U.S. 361 (1989). In addition to citing recent changes in state capital punishment laws, as well as the latest international developments, the Court turned to research findings to support its conclusion that an evolving consensus should lead to the overruling of its previous decision. Citing research studies addressing juvenile maturity and psychological development, the Court concluded that juveniles were not the worst offenders in the system and thus undeserving of capital punishment. *Roper*, 543 U.S. at 569–70.

[57] The normative values that underlie a constitutional theory can also be informed by science, since judicial perceptions of social realities can affect judges' values and norms. As Deborah Jones Merritt has proposed, the *Brown* Court did not necessarily turn to science for specific answers to constitutional questions, but scientific information was no doubt part of an evolving process that changed the Justices' understanding of the meaning of equal protection:

> The journey may have included personal observation of racial interactions, reflection on their own educational experience and that of their children, consideration of contemporary and historical accounts of segregation, fresh memories of a war in which odious racial classifications figured prominently, philosophical musing about the nature of equality, resolution of prior challenges to the separate-but-equal doctrine in higher education, and examination of a growing body of social science literature documenting the effects of segregation. Social science was but one of several strands weaving a picture of an unequal American society. The composite picture pushed the Justices to embrace a new constitutional theory.

Deborah Jones Merritt, *Constitutional Fact and Theory: A Response to Chief Judge Posner*, 97 MICH. L. REV. 1287, 1293–94 (1999).

review. Science can offer relevant information beyond the specific limits of a trial record and can expand anecdotal knowledge by adding wider and more generalizable facts on the workings of groups and institutions. And while problems of bias or incompleteness may be impossible to eliminate, scientific findings can offer at least some degree of insight beyond what appears to be commonsensical, hypothetical, or untested and suppositional. The danger, as an analysis of cases such as *Parents Involved* can show, is that a constitutional framework can be so entrenched and rooted in core values that even an informational role for science can be trumped by ideological priorities. In the next Part, I examine the roles of science in some of the most recent equal protection cases to determine both the latest direction of the Supreme Court and the possibilities for change in forthcoming litigation.

III. SCIENCE AND EQUAL PROTECTION ANALYSIS

The dilemmas generated by *Brown* and other cases have led a number of Supreme Court Justices to question the role of scientific evidence in equal protection litigation, proposing that legislatures "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'",[58] and that "proving broad sociological propositions by statistics is a dubious business, and one that inevitably is in tension with the normative philosophy that underlies the Equal Protection Clause."[59] Yet, these concerns have not significantly deterred the citation of scientific findings by advocates or the courts. Scientific research continues to play a part in the fact finding of leading equal protection cases, and Supreme Court decisions affecting school desegregation,[60] gender equality,[61] voting rights and redistricting,[62] criminal procedure,[63] prisoners' rights,[64] age discrimination,[65] disability rights,[66]

---

[58] McCleskey v. Kemp, 481 U.S. 279, 319 (1987) (quoting Gregg v. Georgia, 428 U.S. 153, 186 (1976)).

[59] Craig v. Boren, 429 U.S. 190, 204 (1976) (majority opinion of Brennan, J.).

[60] *See, e.g.*, Bd. of Educ. v. Dowell, 498 U.S. 237 (1991); Keyes v. Sch. Dist. No. 1, 413 U.S. 189 (1973).

[61] *See, e.g.*, Rostker v. Goldberg, 453 U.S. 57 (1981) (gender discrimination in military registration); Geduldig v. Aiello, 417 U.S 484 (1974) (pregnancy discrimination).

[62] *See, e.g.*, Crawford v. Marion County Elec. Bd., 128 S. Ct. 1610 (2008) (right to vote); Vieth v. Jubelirer, 541 U.S. 267 (2004) (political gerrymandering); Hunt v. Cromartie, 526 U.S. 541 (1999) (racial gerrymandering).

[63] *See* Batson v. Kentucky, 476 U.S. 79 (1986) (racial discrimination in peremptory challenges); Castaneda v. Partida, 430 U.S. 482 (1977) (racial discrimination in jury selection).

[64] *See* Johnson v. California, 543 U.S. 499 (2005) (racial segregation in prison).

immigrants' rights,[67] and affirmative action policy[68] have all contained opinions with multiple citations to scientific findings. In this Part, I discuss the Supreme Court's treatment of science in the equal protection arena by examining the underlying doctrine, the Justices' framing of equal protection inquiries, and the deployment of scientific findings in a range of recent decisions.

A. *Fact Finding and Case Law*

Courts engaging in constitutional fact finding[69] can turn to science on any of three levels of equal protection analysis:[70] (1) determining the nature

---

[65] *See* Mass. Bd. of Retirement v. Murgia, 427 U.S. 307 (1976) (age discrimination in employment).

[66] *See* City of Cleburne v. Cleburne Living Center, 473 U.S. 432 (1985) (rights of mentally retarded); Heller v. Doe, 509 U.S. 312 (1993) (rights of mentally ill).

[67] *See* Plyler v. Doe, 457 U.S. 202 (1982) (educational rights of undocumented immigrants).

[68] *See, e.g.*, Grutter v. Bollinger, 539 U.S. 306 (2003) (affirmative action in higher education).

[69] The leading use of scientific evidence in *adjudicative* fact finding is to help determine whether a constitutional violation has occurred. Statistical analyses are used to prove both an injury caused by discrimination and to create an inference of discriminatory intent. *See, e.g.*, Batson v. Kentucky, 476 U.S. 79 (1986) (peremptory challenges in jury selection); Castaneda v. Partida, 430 U.S. 482 (1977) (overall jury selection); Keyes v. Sch. Dist. No. 1, 413 U.S. 189 (1973) (school desegregation). Scientific evidence can also be used to determine whether a government's interest in remedying past discrimination is sufficiently compelling because it is grounded in a "strong basis in evidence." *See, e.g.*, Shaw v. Hunt, 517 U.S. 899, 909–10 (1996); City of Richmond v. J.A. Croson Co., 488 U.S. 469, 500 (1989). Evidence of past discrimination must be extensive and tied directly to a government's actions; the requirement is typically satisfied through a set of statistical and economic analyses covering several years of past discrimination. Another use is to determine whether heightened review is triggered in the first place; in race-conscious redistricting cases, the courts will apply strict scrutiny only after race has been shown to be a predominant factor in drawing legislative district lines. *See* Easley v. Cromartie, 532 U.S. 234, 241 (2001); Miller v. Johnson, 515 U.S. 900, 920 (1995). The question of whether race predominates can turn on regression analyses of voting behavior and other statistical techniques that can isolate race from other redistricting factors such as party affiliation and geography.

[70] As a practical matter, fact finding only becomes a significant issue when the courts are engaged in heightened review, employing either strict scrutiny or intermediate scrutiny, which requires that a policy be substantially related to an important governmental interest. *See, e.g.*, Lehr v. Robertson, 463 U.S. 248 (1983) (discrimination against unwed fathers); Craig v. Boren, 429 U.S. 190 (1976) (gender discrimination). Most social and economic regulations are subject to the default standard of "rational basis" review, and the courts presume their validity under a test in which a state interest need only be legitimate and the challenged policy need only be rationally related to the

of a classification, (2) determining the appropriate standard of review—the level of scrutiny applied to a particular classification, or (3) determining whether a governmental action satisfies the standard of review.[71] The Supreme Court and other federal courts have relied on research findings in determining that a national origin group, such as Mexican Americans, is a classification deserving recognition under the Equal Protection Clause;[72] that policies seeking to deny undocumented immigrant children access to a public school education were subject to heightened scrutiny;[73] that race-based prison segregation policies were subject to strict scrutiny;[74] and that

---

interest. *See* U.S. Dep't of Agric. v. Moreno, 413 U.S. 528, 533–34 (1973). The test is so lenient that "a legislative choice is not subject to courtroom fact finding and may be based on rational speculation unsupported by evidence or empirical data." FCC v. Beach Commc'ns, Inc., 508 U.S. 307, 315 (1993).

[71] Modern equal protection doctrine has focused largely on judicial review of governmental action that affects "suspect classes" or "semi-suspect" classes—group classifications such as race, national origin, alienage, or gender that trigger heightened scrutiny because of several key factors, including an extensive history of discrimination against the group, their exclusion from the political process, and the immutability of a classifying trait. *See* San Antonio Indep. Sch. Dist. v. Rodriguez, 411 U.S. 1, 28 (1973). In addition to suspect classes, certain fundamental rights, such as the right to vote and the right to interstate travel, can trigger strict scrutiny under the Equal Protection Clause. *See, e.g.*, Kramer v. Union Free Sch. Dist. No. 15, 395 U.S. 621, 626 (1969) (right to vote); Shapiro v. Thompson, 394 U.S. 618, 638 (1969) (right to travel).

[72] In *Hernandez v. Texas*, 347 U.S. 475 (1954), the Court ruled that the exclusion of Mexican Americans from criminal jury service violated the Equal Protection Clause. The government defended its practices by arguing that because Mexican Americans were classified as white there was no discrimination. *Id.* at 477. The Court disagreed, noting that "community prejudices are not static, and from time to time other differences from the community norm may define other groups which need the same protection." *Id.* at 478. Hernandez' brief documented longstanding discrimination against Mexican Americans in jury selection as well as education, housing, property ownership, employment, and access to public accommodations, and the Court consequently cited studies to support its ruling that national origin, like race, is a protected class under the Equal Protection Clause. *See* Brief for Petitioner, Hernandez v. Texas, 347 U.S. 475 (1954) (No. 406), 1953 WL 78625.

[73] In *Plyler v. Doe*, 457 U.S. 202 (1982), the parties and amici curiae offered extensive evidence addressing the costs of educating undocumented children, along with economic analyses of the impact of undocumented immigrants in general. The Court ultimately considered the costs of *not* educating undocumented children to support its argument that the educational policies deserved heightened review; while strict scrutiny was inappropriate because of the children's unlawful status, an intermediate standard requiring that the state further a substantial interest was apt because of the social costs and the important role of education in public life. *Id.* at 219–25.

[74] In *Johnson v. California*, 543 U.S. 499 (2005), the Court addressed the question of whether a temporary prison segregation policy was subject either to strict scrutiny, because the segregation was on the basis of race and national origin, or to a more deferential standard because it occurred in the context of prison administration. Ruling

particular race-conscious policies in K–12 education[75] and public employment[76] have advanced compelling interests in satisfaction of strict scrutiny.

In *Grutter*,[77] for example, scientific evidence was a central element of the University's defense of its affirmative action policy from the earliest stages, and was cited approvingly by the Supreme Court in upholding the policy. The University offered several expert reports at trial to demonstrate the educational benefits of diverse student bodies, along with statistical analyses on the workings of the law school admissions process. The plaintiffs relied on their own statisticians to attack the specific admission process, but offered no research studies on the question of diversity and did not dispute that racial diversity in a law school population could provide educational and societal benefits. The trial court ultimately agreed with the plaintiffs' analysis, although the judge acknowledged that the benefits of diversity were "important and laudable."[78] On appeal, the Sixth Circuit reversed the trial court in a majority opinion that relied on precedent—Justice Powell's controlling opinion in *Regents of the University of California v. Bakke*[79]—rather than science to uphold the diversity interest as compelling.[80]

---

that strict scrutiny should apply, the Court warned of the risks of segregation and cited scientific research which suggested that segregation by race could exacerbate prisoner violence. *Id.* at 507–08.

[75] *See* Hunter v. Regents of the Univ. of Cal., 190 F.3d 1061 (9th Cir. 1999) (upholding race-conscious admissions policy to a university-affiliated "laboratory" school because it served a compelling interest in advancing educational research), *cert. denied*, 531 U.S. 877 (2000).

[76] *See* Wittmer v. Peters, 87 F.3d 916 (7th Cir. 1996) (upholding race-conscious hiring policy for prison guards that favored black applicants because it served a compelling interest in meeting the operational needs of effective prison administration), *cert. denied*, 519 U.S. 1111 (1997). The *Wittmer* court cited expert testimony in concluding that "[t]he black lieutenant is needed because the black inmates are believed unlikely to play the correctional game of brutal drill sergeant and brutalized recruit unless there are some blacks in authority in the camp." *Id.* at 920. *But see* Lomack v. City of Newark, 463 F.3d 303 (3d Cir. 2006) (rejecting compelling interest in promoting racial diversity among fire fighters and discounting educational and sociological benefits of diversity).

[77] 137 F. Supp. 2d 821 (E.D. Mich. 2001), *rev'd*, 288 F.3d 732 (6th Cir. 2002), *aff'd*, 539 U.S. 306 (2003).

[78] *Id.* at 850. The plaintiffs in the companion case of *Gratz v. Bollinger* similarly conceded that diversity was "good, important, and valuable" but argued that it was also "too limitless, timeless, and scopeless" to be compelling. 122 F. Supp. 2d 811, 823 (E.D. Mich. 2000), *rev'd*, 539 U.S. 244 (2003).

[79] 438 U.S. 265 (1978).

[80] 288 F.3d 732 (6th Cir. 2002). Among the dissenting and concurring opinions, however, there was a serious colloquy over the scientific evidence, with a dissenting judge arguing that the University's primary study was "questionable science . . . created

In the Supreme Court, numerous amicus curiae briefs containing summaries of scientific research added to the record created at trial, but the bulk of the citations to research studies were contained in briefs supporting the University of Michigan,[81] while amicus briefs supporting the plaintiffs focused largely on undercutting the university's expert witness reports.[82] In ruling by a five-to-four vote that the law school admissions policy satisfied strict scrutiny, the *Grutter* Court concluded that the University's interest in promoting student diversity was a compelling interest. The Court did not rely solely on scientific evidence to reach its conclusion—precedent and constitutional facts from other amicus briefs, including ones from retired military officers and major businesses addressing the importance of diversity, were critical—but science played a prominent role in the Court's upholding the diversity interest. The *Grutter* Court concluded that the law school's admissions policy promoted cross-racial understanding, helped break down stereotypes, and enabled students to understand individuals of different races. The Court added that "[i]n addition to the expert studies and reports entered into evidence at trial, numerous studies show that student body diversity promotes learning outcomes, and 'better prepares students for an increasingly diverse workforce and society, and better prepares them as professionals.'"[83] Among the dissenting Justices, only Justice Thomas chose to criticize the

---

expressly for litigation" that suffered from "profound empirical and methodological defects," *id.* at 803–04 (Boggs, J., dissenting), and a concurring judge praising the same study as "one of the most broad and extensive series of empirical analyses conducted on college students in relation to diversity," *id.* at 761 (Clay, J., concurring) (internal citation omitted).

[81] *See* Brief of Am. Educ. Research Ass'n et al. as Amici Curiae in Support of Respondents, Grutter v. Bollinger, 539 U.S. 306 (2003) (No. 02-241), available at 2003 WL 398292; Brief Amicus Curiae of the Am. Psychological Ass'n in Support of Respondents, Grutter v. Bollinger, 539 U.S. 306 (2003) (No. 02-241) and Gratz v. Bollinger, 539 U.S. 244 (2003) (No. 02-516), available at 2003 WL 398321; Brief of the Am. Sociological Ass'n et al. as Amici Curiae in Support of Respondents, Grutter v. Bollinger, 539 U.S. 306 (2003) (No. 02-241), available at 2003 WL 398313; Brief for the Nat'l Ctr. for Fair & Open Testing (Fairtest) as Amicus Curiae Supporting Respondents, Grutter v. Bollinger, 539 U.S. 306 (2003) (No. 02-241), available at 2003 WL 554400; Brief Amicus Curiae of the Education Ass'n et al. in Support of Respondents, Grutter v. Bollinger, 539 U.S. 306 (2003) (No. 02-241) and Gratz v. Bollinger, 539 U.S. 244 (2003) (No. 02-516), available at 2003 WL 400774; Brief of Soc. Scientists Glenn C. Loury et al. as Amici Curiae in Support of Respondents, Grutter v. Bollinger, 539 U.S. 306 (2003) (No. 02-241) and Gratz v. Bollinger, 539 U.S. 244 (2003) (No. 02-516), available at 2003 WL 402129.

[82] *See* Brief Amici Curiae of the Ctr. for Equal Opportunity et al. in Support of Petitioner, Grutter v. Bollinger, 539 U.S. 306 (2003) (No. 02-241), available at 2002 WL 32101020; Brief for Amicus Curiae Nat'l Ass'n of Scholars in Support of Petitioners, Grutter v. Bollinger, 539 U.S. 306 (2003) (No. 02-241), available at 2003 WL 144938.

[83] 539 U.S. 306, 330 (2003).

scientific findings by citing other literature: an opposing study on the benefits of diversity and two additional studies on the achievement of black students in historically black colleges and universities.[84]

Nevertheless, the courts' endorsement of science across a range of cases is not fully consistent or easily predictable.[85] For instance, the Supreme Court has noted, but ultimately discounted, scientific evidence in ruling that classifications based on age[86] and mental disability[87] are not "suspect" classifications deserving heightened scrutiny; that separate age restrictions for men versus women in alcohol sales were not justified by statistics on gender differences in alcohol usage and drinking-related accidents and arrests;[88] and that statistical evidence of significant racial disparities in death

---

[84] *Id.* at 364–65 (Thomas, J., concurring in part and dissenting in part). Justice Scalia did not cite to scientific research but criticized the findings in this way:

> This is not, of course, an "educational benefit" on which students will be graded on their law school transcript (Works and Plays Well with Others: B+) or tested by the bar examiners (Q: Describe in 500 words or less your cross-racial understanding). For it is a lesson of life rather than law—essentially the same lesson taught to (or rather learned by, for it cannot be "taught" in the usual sense) people three feet shorter and 20 years younger than the full-grown adults at the University of Michigan Law School, in institutions ranging from Boy Scout troops to public-school kindergartens.

Id. at 347 (Scalia, J., concurring in part and dissenting in part).

[85] Empirical analyses of recent Supreme Court cases have not yielded any clear or consistent patterns in the citation of scientific findings. *See* ROSEMARY J. ERICKSON & RITA J. SIMON, THE USE OF SOCIAL SCIENCE DATA IN SUPREME COURT DECISIONS (1998); Henry F. Fradella, *A Content Analysis of Federal Judicial Views of the Social Science "Researcher's Black Arts,"* 35 RUTGERS L.J. 103 (2003).

[86] In *Massachusetts Board of Retirement v. Murgia*, 427 U.S. 307 (1976), the Court upheld a mandatory retirement policy and discounted a body of findings on the long-range ability of the elderly to continue contributing to society and the adverse effects of prematurely removing them from the workforce. Instead, the Court employed the commonsensical notion that everyone ages, and that the decline of certain physical and mental skills are a normal consequence of aging. *Id*. at 314–315.

[87] In *City of Cleburne v. Cleburne Living Center*, 473 U.S. 432 (1985), the Court applied rational basis scrutiny to a classification based on mental retardation, even though a significant number of studies offered by medical authorities, mental health professionals, and research associations documented the vulnerabilities of the mentally retarded and the harms caused by prejudice and past discrimination.

[88] In *Craig v. Boren*, 429 U.S. 190 (1976), the Court struck down an Oklahoma law setting a minimum age limit of eighteen for women and twenty-one for men for purchases of certain alcoholic beverages. Although the state had offered statistical evidence of differential rates of usage, accidents, and arrests, the Court concluded that "the principles embodied in the Equal Protection Clause are not to be rendered inapplicable by statistically measured but loose-fitting generalities concerning the drinking tendencies of aggregate groups." *Id.* at 208–09.

penalty sentencing did not implicate the Equal Protection Clause.[89] Across a number of cases, the Court and individual Justices have dismissed studies as irrelevant or inconclusive, or have not cited science at all, even if when it was an extensive part of the record and the appellate arguments. Consider two examples: *Loving v. Virginia*, where the Supreme Court struck down one of the last vestiges of Jim Crow segregation—anti-miscegenation laws prohibiting marriages between whites and non-whites, and *United States v. Virginia*, where the Court struck down the males-only admissions policy at the Virginia Military Institute.

In *Loving*, all of the briefs for the parties and all but one of the amicus curiae briefs contained scientific references addressing the purported harms of racial intermarriage.[90] And even the one amicus brief that contained no citations to specific scientific findings included a section entitled "The So-Called Scientific Argument," which was designed to undermine the petitioners' references to science by arguing that the science was inconclusive.[91] Attorneys challenging the Virginia law offered extensive references to works which showed that there were no biological harms

---

[89] In *McCleskey v. Kemp*, 481 U.S. 279 (1987), the Court rejected a death penalty challenge by an African-American defendant who had been convicted of murdering a white police officer. In support of his constitutional claims, McCleskey offered a statistical study of Georgia death penalty cases which found that defendants whose victims were white were 4.3 times more likely to receive a death sentence than defendants whose victims were black. The Court acknowledged the validity of the study, but ruled against McCleskey because the statistics did not demonstrate the state's intent to discriminate against him specifically or that consideration of the victim's race had actually tainted his trial. The Court concluded that such "disparities in sentencing are an inevitable part of our criminal justice system." *Id.* at 312.

[90] 388 U.S. 1 (1967); 64 LANDMARK BRIEFS AND ARGUMENTS OF THE SUPREME COURT OF THE UNITED STATES: CONSTITUTIONAL LAW 942 (Philip B. Kurland & Gerhard Casper eds., 1975) [hereinafter LANDMARK BRIEFS AND ARGUMENTS]. Among the amicus briefs filed on behalf of the petitioners was one submitted on behalf of several Roman Catholic bishops that contained not only theological sources but citations to anthropological studies supporting intermarriage.

[91] The state of North Carolina's amicus brief stated in part: "We do not enter into the scientific realm on this question. There is no equalitarianism in the field of biology, anthropology and geneticism. There is no certitude or concrete exactness in this field. These so-called sciences have not yet reached the position or status of the exact sciences one hundred and fifty years ago." Brief of the State of North Carolina as Amicus Curiae, Loving v. Virginia, 388 U.S. 1 (1967) (No. 395), *reprinted in* LANDMARKS BRIEFS AND ARGUMENTS, *supra* note 90, at 958.

Later commenting on the problems of scientific bias, the brief stated: "You can select books and treatises both pro and con on this question; one thing is sure and that is neither cranial measurements, intelligence quotients nor statistical averages will ever settle the question. This field is like expert witnesses in that you pay your money and take your choice." *Id*.

associated with intermarriage and mixed-race children. One study, a United Nations report summarizing a body of literature, was quoted at oral argument: "The biological data . . . stand in open contradiction to the tenets of racism. Racist theories can in no way pretend to have any scientific foundation."[92]

Attorneys defending the Virginia law, noting that the weight of recent biological science did not support their arguments, proposed that the scientific evidence was inconclusive and that the Court should defer to the wisdom of the legislature.[93] The state did, however, employ arguments addressing the psychological and social harms of intermarriage, citing the instability of individuals who entered into marriage, high divorce rates, and the stigma suffered by children of interracial marriages.[94] Virginia's attorney also quoted a study during oral arguments which had concluded that people entering into interracial marriages suffered from a "rebellious attitude," as well as "self-hatred, neurotic tendencies, immaturity, and other detrimental psychological factors."[95]

However the Supreme Court may have evaluated the scientific claims in chambers, the unanimous opinion in *Loving* cited no science, relying instead on clear violations of constitutional doctrine. The Court noted the state's argument that the scientific evidence was "substantially in doubt"[96] but went no further in discussing it because of the anti-miscegenation law's unambiguous failure to satisfy strict scrutiny. The Court stated: "There is patently no legitimate overriding purpose independent of invidious racial discrimination which justifies this classification. The fact that Virginia prohibits only interracial marriages involving white persons demonstrates

---

[92] *Id.* at 990 (quoting a statement by the United Nations Educational, Scientific and Cultural Organization).

[93] *Loving*, 388 U.S. at 8. The brief for Virginia stated:

> If this Court (erroneously, we contend) should undertake such an inquiry, it would quickly find itself mired in a veritable Serbonian bog of conflicting scientific opinion upon the effects of interracial marriage, and the desirability of preventing such alliances, from the physical, biological, genetic, anthropological, cultural, psychological and sociological point of view.

Brief and Appendix on Behalf of Appellee, Loving v. Virginia, 388 U.S. 1 (1967) (No. 395), *reprinted in* LANDMARK BRIEFS AND ARGUMENTS, *supra* note 90, at 834.

[94] Oral Argument of Loving v. Virginia, 388 U.S. 1 (1967) (No. 395), *reprinted in* LANDMARK BRIEFS AND ARGUMENTS, *supra* note 90, at 988.

[95] *Id.*

[96] *Loving*, 388 U.S. at 8.

that the racial classifications must stand on their own justification, as measures designed to maintain White Supremacy."[97]

In *United States v. Virginia*,[98] scientific evidence was a key element of the state's defense of its higher education policy, but the findings were ultimately rejected as irrelevant by the Supreme Court in a seven-to-one vote. In reviewing the males-only admissions policy at the Virginia Military Institute, the district court had employed an intermediate scrutiny analysis typically applied to gender classifications and required that the policy be substantially related to an important governmental interest.[99] During a six-day trial, the court took scientific evidence introduced by the Commonwealth that addressed the question of the government's interests in providing diverse educational opportunities throughout the state system (including a single-sex military institution) and maintaining VMI's unique "adversative" model of education, which featured "[p]hysical rigor, mental stress, absolute equality of treatment, absence of privacy, minute regulation of behavior, and indoctrination in desirable values . . . ."[100]

The trial court found credible the scientific evidence of gender-based developmental differences and the expert testimony on the likely changes to the VMI's pedagogy that would result from coeducation, and the court upheld the single-sex admissions policy under intermediate scrutiny.[101] On appeal, the Fourth Circuit accepted the trial court's factual findings and cited a number of additional studies to justify single-sex education,[102] but reversed the trial court on the law, requiring that the lower court examine the possibilities for a remedy in which women could receive a comparable, but still separate, military education. In light of the lower court rulings, Virginia chose to establish a special women-only military education program at a private women's college.

On appeal, the Supreme Court employed an elevated intermediate scrutiny test that required an "exceedingly persuasive justification"[103] in

---

[97] *Id.* at 11.

[98] 518 U.S. 515 (1996).

[99] *Id.* at 533.

[100] 766 F. Supp. 1407, 1421 (W.D. Va. 1991).

[101] *Id.* at 1434–43.

[102] 976 F.2d 890, 897–98 (4th Cir. 1992).

[103] 518 U.S. at 531 (1996). As Justice Rehnquist noted in his concurrence in *U.S. v. Virginia*, in prior gender discrimination cases, the term "exceedingly persuasive" was not used as an actual test, but as a term to describe the difficulty of meeting intermediate scrutiny: "While terms like 'important governmental objective' and 'substantially related' are hardly models of precision, they have more content and specificity than does the phrase 'exceedingly persuasive justification.' That phrase is best confined, as it was first used, as an observation on the difficulty of meeting the applicable test, not as a formulation of the test itself." *Id.* at 559 (Rehnquist, J., concurring).

order to ensure that stereotypes and generalizations were not at the heart of an exclusionary policy. Casting aside arguments in a number of amicus curiae briefs[104] and the district court's findings—so much so that the term "findings" was placed into quotation marks—Justice Ginsburg's majority opinion concluded that the expert testimony and studies on gender-based developmental differences only revealed general tendencies about men and women, and could not be used to justify the exclusion of women who might choose to attend and could thrive under the VMI's adversative model.[105] Justice Ginsburg further concluded that the adversative model would not, contrary to expert testimony, be harmed by the admission of women; she considered such a judgment "hardly proved, a prediction hardly different from other 'self-fulfilling prophecies,' once routinely used to deny rights or opportunities."[106] Consequently, the Court ruled that the state had not satisfied the "exceedingly persuasive justification" standard and that women would have to be made eligible for admission to VMI. Writing in dissent, Justice Scalia adopted a position that was considerably more deferential to the trial court and accepting of the scientific facts, upbraiding the majority for ignoring the lower court's findings: "How remarkable to criticize the District Court on the ground that its findings rest on the evidence (i.e., the testimony of Virginia's witnesses)! That is what findings are supposed to do."[107]

B. *Facts and Framing*

Grutter, *Loving*, and *U.S. v. Virginia* span multiple Court eras and cover different equal protection standards and types of evidence, so direct comparisons between the three cases are difficult. Yet, the contrasts in their approaches to scientific findings are evident. The *Loving* Court's opinion

---

[104] *See, e.g.*, Amici Curiae Brief of Women's Schools Together, Inc. et al. in Support of Respondents at *10–27, United States v. Virginia, 518 U.S. 515 (1995) (Nos. 94-1941, 94-2107), available at 1995 WL 761812; Brief of Amici Curiae Independent Women's Forum et al. in Support of Respondents at *4–15, United States v. Virginia, 518 U.S. 515 (1995) (Nos. 94-1941, 94-2107), available at 1995 WL 745003; Brief Amici Curiae in Support of Respondents by Dr. Kenneth E. Clark et al. at *4–13, United States v. Virginia, 518 U.S. 515 (1995) (Nos. 94-1941, 94-2107), available at 1995 WL 744995. *But see* Brief Amici Curiae in Support of Petitioner by the Am. Ass'n of University Professors et al. at *2–28, United States v. Virginia, 518 U.S. 515 (1995) (Nos. 94-1941, 94-2107), available at 1995 WL 702833 (containing extensive citations to scientific literature, but taking position that the scientific literature was not conclusive and offered only generalizations on male-female learning differences).

[105] *United States. v. Virginia*, 518 U.S. at 541–42.

[106] *Id.* at 542–43 (citation omitted).

[107] *Id.* at 585 (Scalia, J., dissenting).

relied entirely on legal grounds for its repudiation of anti-miscegenation laws, but implicitly dismissed Virginia's empirical arguments. The VMI case yielded an explicit rejection of empirical data that Justice Ginsburg found largely irrelevant to the question of gender exclusion, since the studies offered by the state focused on generalized differences between men and women rather than the suitability of women who chose to attend VMI. And the *Grutter* Court relied on scientific research that supported its legal conclusion that concrete educational benefits accrued because of student body diversity, making the interest sufficiently compelling.

A tempting explanation for the differences is that the citation of scientific findings is largely outcome-driven, and that the Justices are only using science instrumentally and rhetorically. In other words, when scientific findings align with a legal conclusion that is reached through other criteria, including personal policy preferences and ideological grounds, the findings are cited; but when the science does not align with the end result, it is treated as inconclusive or irrelevant—or it is ignored altogether. A rhetorical theory can provide partial explanations for many Supreme Court opinions, but attributing the citation of science solely to judicial rhetoric offers only limited insights into the relationships between equal protection norms and fact finding; nor does it provide prescriptive guidance for the courts on how to better structure their uses of science in constitutional litigation.

An alternative analysis to help understand recent case law is an approach focusing on the *framing* of constitutional inquiries and fact finding. In suggesting a framing analysis,[108] I start with the proposition that constitutional interpretation is not solely driven by law or by ideology, but is fueled by problem solving approaches in which the courts rely on broad constitutional frameworks that include appropriate factual inquiries to fill gaps in knowledge. These frameworks yield constitutional meaning—a particular interpretation of the Equal Protection Clause—as well as holdings and the language of opinions in specific cases. In employing the term "constitutional framework," I refer not only to constitutional text and precedent, but to a general structure that judges employ to approach a

---

[108] In using the term "framing analysis" I am relying on a large and varied literature that covers areas of cognitive science, media studies, and other fields and am adapting it to constitutional analysis. I draw on Erving Goffman's seminal conceptualization of "frame analysis," *see* ERVING GOFFMAN, FRAME ANALYSIS: AN ESSAY ON THE ORGANIZATION OF EXPERIENCE (1974), as well as more recent treatments of the field, *see, e.g.*, FRAMING PUBLIC LIFE: PERSPECTIVES ON MEDIA AND OUR UNDERSTANDING OF THE SOCIAL WORLD (Stephen D. Reese et al. eds., 2001). For other recent examples of framing in law and legal advocacy, see Gary Blasi & John T. Jost, *System Justification Theory and Research: Implications for Law, Legal Advocacy, and Social Justice*, 94 CAL. L. REV. 1119, 1149–55 (2006); Cheryl I. Harris, *Whitewashing Race: Scapegoating Culture*, 94 CAL. L. REV. 907, 932–40 (2006).

recurring type of problem and to reach a legal conclusion based on relevant facts. A framework will typically incorporate the text and rules established by precedent, but it also includes core values, theories, and interpretive approaches to the law. In this sense, a framework is broader than an individual jurisprudence or an ideological basis for decision making, because it can incorporate appropriate fact finding into addressing a constitutional problem.[109]

A framing analysis suggests that constitutional frameworks can determine factual inquiries—or, in some instances, can dictate when little or no further factual inquiry is necessary. The most basic facts, of course, trigger certain frameworks in the first place: a court must know, for example, that a case involves a governmental racial classification in order to invoke an equal protection framework. But additional fact finding, whether it is adjudicative or legislative/constitutional, can be structured through the framework. Based on the most elemental facts of *Grutter*, for instance, all of the Supreme Court Justices employed a frame that the race-conscious Michigan admissions policy should be analyzed as an equal protection problem triggering heightened scrutiny. The *Grutter* trial court also adopted a basic strict scrutiny framework and conducted extensive adjudicative fact finding on the mechanics of the policy's use of race at trial; expert testimony, including scientific evidence, was also taken at trial as constitutional facts relevant to the question of whether the university's interest in diversity was compelling.

Beyond recognizing that strict scrutiny had been triggered, however, the majority and the dissenting Justices differed on the specific framework to apply to the policy. Justice O'Connor and the other members of the *Grutter* majority employed a deferential form of strict scrutiny rooted in the context of higher education and the attendant interest in academic freedom.[110] More specifically, Justice O'Connor framed the core strict scrutiny questions around a balancing test in which the compelling interest inquiry focused on the benefits of student body diversity and the narrow tailoring inquiry focused on the costs borne by individual applicants because of procedures

---

[109] Reframing or frame "shifting" may be possible, but may only be triggered by significant changes in the law, such as an amendment to the Constitution or a precedent-reversing case, which require a judge to adopt a revised constitutional frame. Changes in fundamental values over time may also yield frame shifts: the evolution of the Supreme Court's approach to racial segregation from *Plessy* to *Brown* provides one example, as do recent cases in which the Court has reversed earlier precedents because of the evolution of societal values. *See, e.g.*, Roper v. Simmons, 543 U.S. 551 (2005) (overruling previous case law on juvenile death penalty); Lawrence v. Texas, 539 U.S. 558 (2003) (overruling previous case law on sodomy statutes).

[110] *Grutter*, 539 U.S. at 327–29.

that could be too inflexible or that weighted race too heavily.[111] Under a cost-benefit analysis, evaluating the benefits of diversity meant a turn to empirical information, available in the trial court record and in amicus curiae briefs containing both scientific and anecdotal information from a range of sources. Deferring to the university, the majority concluded that the costs of the policy would be minimal because they allowed non-minority applicants to compete fully with minority applicants who might receive a "plus" because of race.

In their dissenting opinions in *Grutter*, Chief Justice Rehnquist and Justice Kennedy each employed a strict scrutiny inquiry that paralleled the balancing elements of Justice O'Connor's frame, but one that was considerably more skeptical and exacting.[112] Justice Kennedy agreed with the majority that consistent with precedent, an interest in student body diversity, when supported by empirical evidence, could be compelling because it furthered a university's educational task.[113] Focusing on the narrow tailoring, however, both the Chief Justice and Justice Kennedy would have struck down the policy. They each concluded that, as revealed through the trial court's adjudicative fact finding on multi-year admissions statistics, the policy in practice operated as a means to obtain consistent percentages of minority group enrollments. Within the Rehnquist and Kennedy dissents, the policy only advanced "racial balancing" designed merely to obtain proportionality for proportionality's sake.

The frameworks of Justices Thomas and Scalia in *Grutter* were even more unyielding, and for all practical purposes would have categorically prohibited any race-conscious admissions policy, with little need for constitutional fact finding. Justice Thomas's strict scrutiny analysis, for instance, reframed the compelling interest requirement as a "pressing public necessity"[114]—alluding to earlier Supreme Court language on national security interests during wartime—and recast the university's interest not as one focusing on educational benefits, but merely "in offering a marginally superior education while maintaining an elite institution."[115] The framework's standard of review thus became virtually impossible to satisfy, and the interest was devalued without any need for significant fact finding on educational benefits.

---

[111] *See* Michelle Adams, *Searching for Strict Scrutiny in* Grutter v. Bollinger, 78 TUL. L. REV. 1941 (2004) (comparing cost-benefit analyses and "smoking out" analyses in *Grutter v. Bollinger*).

[112] *Grutter*, 539 U.S. at 378 (Rehnquist, C.J., dissenting); *id.* at 387 (Kennedy, J., dissenting).

[113] *Id*. at 387–88 (Kennedy, J., dissenting).

[114] *Id.* at 351 (Thomas, J., concurring in part and dissenting in part).

[115] *Id.* at 356.

Examining *Loving v. Virginia* and *United States v. Virginia* through a framing lens analysis also suggests that highly exacting and categorical frameworks can lead to the discounting of constitutional facts. In *Loving*, the Court employed a strict scrutiny standard that reflected the apex of the Court's "'strict' in theory, fatal in fact" approach to racial classifications that burden racial minority groups.[116] The Court did not cite any of the state's scientific evidence, but its strict scrutiny language clearly repudiated any claims that the state had to the legitimacy of their interest in preventing the psychological or social harms of intermarriage. In *U.S. v. Virginia*, Justice Ginsburg employed a "skeptical scrutiny"[117] analysis that framed the equal protection inquiry as a test that was closer in both form and substance to high-level strict scrutiny; indeed, the scrutiny was so skeptical that it was unyielding to facts that were inconsistent with the full inclusion of women at the Virginia Military Institute. In essence, a value-focused framework of gender integration was so strong that it went beyond merely casting aside the scientific evidence as inapt or irrelevant. Justice Ginsburg's opinion was openly averse to the trial court's findings.

In identifying these cases as examples, I do not imply that a framing analysis can explain the fact finding in every recent equal protection case. Nor do I suggest that framing is a deliberate and predictable strategy employed by the Justices—as opposed to an analytical lens through which opinions and arguments can be assessed. I simply propose that examining case law through framing analyses provides particular insights into how the courts can link values, law, and fact finding. In the next Part, I apply a framing analysis in more detail to the *Parents Involved* cases.

IV. SCIENTIFIC EVIDENCE AND *PARENTS INVOLVED*

The *Parents Involved* cases reflect significant differences in the framing of constitutional arguments and reliance on scientific evidence to answer key inquiries under strict scrutiny. These differences are found in multiple dimensions in three stages of the litigation: (1) the parties' arguments and evidence at trial; (2) the legal arguments and summaries of scientific research contained in amicus curiae briefs; and (3) the Supreme Court Justices' citations of scientific evidence and their responses to the equal protection claims.

---

[116] *Loving*, 388 U.S. at 11–12; *see* Gerald Gunther, *Foreword: In Search Of Evolving Doctrine On A Changing Court: A Model For A Newer Equal Protection*, 86 HARV. L. REV. 1, 8 (1972) (proposing that Supreme Court's equal protection jurisprudence of the 1960s and early 1970s was "a scrutiny that was 'strict' in theory and fatal in fact").

[117] 518 U.S. at 515, 531.

A. *Science in the Lower Courts*

The plaintiffs' challenges to the voluntary desegregation plans in Seattle and Louisville represented claims asserting an individual right to choose one's school without race being used as a factor—a strong color-blind framework paralleling earlier challenges to race-conscious affirmative action plans in cases such as *Grutter v. Bollinger* and *Gratz v. Bollinger*. In the Seattle litigation, both the plaintiffs and the school district relied on expert reports that were submitted in conjunction with their applications for summary judgment before the district court.[118] To support the school district's argument that its interests in promoting racial diversity and reducing the effects of racial isolation were compelling, the district's expert identified four categories of research which showed that racial diversity produced social and educational benefits, including (1) greater educational opportunities and achievement, (2) improved academic achievement and critical thinking skills, (3) improved race relations and civil values, and (4) increased employment opportunities in racially diverse settings.[119] The plaintiffs' expert disagreed with the conclusions of the school district's expert that the scientific evidence was conclusive on producing significant academic and social benefits, but did acknowledge that "[t]here is general

---

[118] 137 F. Supp. 2d 1224, 1236–38 (W.D. Wash. 2001).

[119] As quoted by the district court, the declaration of Dr. William T. Trent stated in relevant part:

> [1.] Opportunity and achievement. The research shows that a desegregated educational experience opens opportunity networks in the areas of higher education and employment, particularly for minority students, which do not develop when students attend less integrated schools. . . .
> [2.] Teaching and learning. The research shows that academic achievement of minority students improves when they are educated in a desegregated school, likely because they have access to better teachers and more advanced curriculum. The research also shows that both white and minority students experienced improved critical thinking skills—the ability to both understand and challenge views which are different from their own—when they are educated in racially diverse schools.
> [3.] Civic values. The research clearly and consistently shows that, for both white and minority students, a diverse educational experience results in improvement in race-relations, the reduction of prejudicial attitudes, and the achievement of a more democratic and inclusive experience for all citizens. . . . Recent research has identified the critical role of early school experiences in breaking down racial and cultural stereotypes . . .
> [4.] Employment. Research . . . shows that, as a group, minority students who exited desegregated high schools were more likely to be employed in a racially diverse workplace, obtained more prestigious jobs than those who did not, and that their jobs tended to be higher paying than those students who did not attend desegregated schools.

Id. at 1236.

agreement by both experts and the general public that integration is a desirable policy goal mainly for the social benefit of increased information and understanding about the cultural and social differences among the various racial and ethnic groups."[120] The district court ultimately concluded that the school district's interests were indeed compelling based on the expert reports.

In contrast, the Louisville case did not involve competing claims of scientific experts.[121] The defendant school district offered several witnesses at trial, including two experts, who testified in support of key constitutional facts, including core findings comparable to those in the *Grutter* case:

> [I]n a racially integrated learning environment, students learn tolerance towards others from different races, develop relationships across racial lines and relinquish racial stereotypes. . . . [T]hese students are better prepared for jobs in a diverse workplace and exhibit greater social and intellectual maturity with their peers in the classroom and at their job.[122]

The plaintiffs' argument rested primarily on the assertion that the Louisville voluntary desegregation plan was an illegal racial quota;[123] the plaintiffs offered neither witnesses nor arguments against the proposition that racially integrated schools were valuable. Consequently, the district court accepted as fact that integrated schools strengthen and make an entire school system more attractive. "To find otherwise," the district court concluded, "would require the Court to ignore every bit of testimony on the subject."[124]

Both the Seattle and Louisville trial court decisions were affirmed by federal courts of appeals, with the Sixth Circuit offering a short per curiam opinion in full agreement with the trial court's opinion,[125] and the Ninth Circuit's en banc opinion approvingly citing the school district's expert

---

[120] *Id.* (quoting the deposition of Dr. David J. Armor).

[121] McFarland v. Jefferson County Pub. Sch., 330 F. Supp. 2d 834, 854 n.39 (W.D. Ky. 2004).

[122] *Id.* at 853.

[123] *Id.* at 857.

[124] *Id.* at 854 n.40.

[125] McFarland v. Jefferson County Pub. Sch., 416 F.3d 513 (6th Cir. 2005). One amicus curiae brief in the Sixth Circuit focused on scientific evidence on the benefits of diversity and the harms of racial isolation. *See* Brief of the Civil Rights Project at Harvard University as Amicus Curiae in Support of Defendants-Appellees and Affirmance of the Judgment of the District Court at *18–22, McFarland v. Jefferson County Pub. Sch., 416 F.3d 513 (6th Cir. 2005) (No. 04-5897), available at 2004 WL 5151650.

witness report on the question of compelling interest.[126] In dissent, however, one Ninth Circuit judge offered a preview of the framework differences that would surface in the Supreme Court. Judge Bea, joined by three members of the en banc panel, made clear that he found the fact finding of the lower court to be inadequate and the scientific evidence in support of the Seattle school district to be lacking: "The sociological evidence presented by the District suggests that *some* benefits will accrue from racial balancing. To me, evidence of *some* benefits does not satisfy the District's burden of proving a compelling governmental interest, especially in light of the Supreme Court's frequent pronouncements that racial balancing itself is unconstitutional."[127]

B. *Amicus Curiae Briefs*

Briefs that were filed in the Supreme Court appeals of the Seattle and Louisville cases reflected major differences in both the legal positions and the scientific opinion regarding the educational benefits of racially diverse schools. Nearly one half of the sixty-plus amicus curiae briefs filed in the cases, as well as the Petitioners' reply brief in the Louisville case, contained significant citations to scientific evidence.[128] Six amicus briefs in particular —two filed on behalf of the plaintiffs and four filed on behalf of the school districts—devote most of their space to highlighting and summarizing bodies of research: the brief of David J. Armor, Abigail Thernstrom, and Stephan Thernstrom[129] and the brief of John Murphy, Christine Rossell, and Herbert Walberg[130] were filed on behalf of the Petitioners challenging the district

---

[126] Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No.1, 426 F.3d 1162, 1174–75 (9th Cir. 2005) (en banc). Only one amicus curiae brief filed in the Ninth Circuit offered scientific findings at any great length. *See* Amicus Curiae Brief of Am. Civil Liberties Union in Support of Appellee Seattle School District No. 1 at *17–27, Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No.1, 426 F.3d 1162 (9th Cir. 2005) (No. 01-35450), available at 2001 WL 34644525.

[127] *Parents Involved*, 426 F.3d at 1209 (Bea, J., dissenting) (emphasis in original).

[128] *See* National Academy of Education Committee on Social Science Research Evidence on Racial Diversity in Schools, *Race-Conscious Policies for Assigning Students to Schools: Social Science Research and the Supreme Court Cases* (Robert L. Linn & Kevin G. Welner eds., 2007), *available at* http://www.naeducation.org/Meredith_Report.pdf [hereinafter Linn & Welner].

[129] Brief of David J. Armor, Abigail Thernstrom, and Stephan Thernstrom as Amici Curiae in Support of Petitioners at *9–29, Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1, 127 S. Ct. 2738 (2007) (Nos. 05-908, 05-915), available at 2006 WL 2453607.

[130] Brief of Amici Curiae Drs. Murphy, Rossell and Walberg in Support of Petitioners at *5–17, Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1, 127 S. Ct. 2738 (2007) (Nos. 05-908, 05-915), available at 2006 WL 2459104.

plans; the brief of 553 Social Scientists,[131] the brief of the American Educational Research Association,[132] the brief of the American Psychological Association and the Washington State Psychological Association,[133] and the brief of Amy Stuart Wells et al.[134] were filed on behalf of the Respondent school districts.[135] The major debate among the briefs revolved around the question of educational benefits associated with diverse schools, with more limited attention to narrow tailoring questions such as the effectiveness of race-neutral alternatives.

The opposing sets of amicus briefs are illuminating both for the explicit legal stances taken in support of the parties and the major disagreements in their interpretation of the applicable scientific literature. For example, the Armor, et al. brief took a position opposing the Court's recognizing compelling interests beyond the interests in remedying past discrimination and in promoting of diversity in higher education,[136] while the Murphy, et al. brief more explicitly suggested overruling or seriously limiting *Grutter*.[137] On the other hand, the brief for the American Educational Research

---

[131] Brief of 553 Soc. Scientists as Amici Curiae in Support of Respondents at *4, Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1, 127 S. Ct. 2738 (2007) (Nos. 05-908, 05-915), available at 2006 WL 2927079. The 553 Social Scientists brief was lengthier than other briefs and contained many more summaries and citations because the brief summarized the findings in an appendix rather than in the body of an argument. The literature summaries in the brief's appendix took up 54 pages.

[132] Brief of the Am. Educ. Research Ass'n as Amicus Curiae in Support of Respondents at *5–17, Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1, 127 S. Ct. 2738 (2007) (Nos. 05-908, 05-915), available at 2006 WL 2925967.

[133] Brief for Amici Curiae The Am. Psychological Ass'n and the Washington State Psychological Ass'n in Support of Respondents at *5–27, Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1, 127 S. Ct. 2738 (2007) (Nos. 05-908, 05-915), available at 2006 WL 2927084.

[134] Brief of Profs. Amy Stuart Wells, Jomills Henry Braddock II, Linda Darling-Hammond, Jay P. Heubert, Jeannie Oakes and Michael A. Rebell and the Campaign for Educ. Equity as Amici Curiae in Support of Respondents at *5–29, Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1, 127 S. Ct. 2738, (Nos. 05-0908, 05-915), available at 2006 WL 2927074.

[135] Amicus David J. Armor had also served as the expert for the plaintiffs in the Seattle litigation, while William T. Trent, the expert for the Seattle school district, and Gary Orfield, an expert for the Louisville school district, were among the signatories to the 553 Social Scientists brief.

[136] *See* Brief for David J. Armor, *supra* note 129, at *6 (point headings stating "The Court has Properly Found Very Few Asserted State Interests to be Compelling" and "*Grutter* Does Not Resolve the Issues in these Cases").

[137] *See* Brief of Amici Curiae John Murphy, M.D. et al., *supra* note 130, at *8 ("In this case, the Court has a chance to refortify the meaning of the Fourteenth Amendment, either by overruling *Grutter* or by making clear that it applies only in the context of higher education.").

Association proposed that a compelling interest in racial diversity in K–12 education implicitly followed from the educational diversity interest recognized in *Grutter*,[138] and the brief for Wells, et al. recommended applying a lower standard review than strict scrutiny in the *Parents Involved* cases.[139]

The differences in the citation of research studies and the general interpretations of the broad bodies of scientific literature are even more striking. For instance, the Armor, et al. brief proposed that a "comprehensive review of the literature" revealed that "[t]here is no evidence of a clear and consistent relationship between desegregation and academic achievement, which is the primary purpose of universal public education. . . . When averaged over large numbers of studies, the effects are generally weak or nonexistent."[140] Moreover, the brief suggested that there was no evidence of a clear and consistent relationship "between desegregation and such long-term outcomes as college attendance, occupational status, and wages" or "between racial balance in K–12 schools and such social outcomes as racial attitudes, prejudice, race relations, and inter-racial contact."[141]

In contrast, the 553 Social Scientists brief contained point headings and summaries of the scientific literature—spanning fifty-four pages in the brief's appendix—that identified multiple benefits associated with racial diversity and multiple harms associated with racial isolation:

- Racial Integration Promotes Cross-Racial Understanding and Reduces Racial Prejudice
- Racial Integration Improves Critical Thinking Skills and Academic Achievement
- Racial Integration Improves Life Opportunities
- Racially Integrated Schools Better Prepare Students for a Diverse Workforce, Reduce Residential Segregation, and Increase Parental Involvement in Schools
- Racial Isolation is Associated with Higher Teacher Turnover and Lower Teacher Quality
- Racially Isolated Schools Have Concentrated Educational Disadvantages

---

[138] *See* Brief for Am. Educ. Research Ass'n, *supra* note 132, at *5 ("Like the benefits of diversity in higher education, the benefits of diversity in elementary and secondary education are 'not theoretical but real.'").

[139] *See* Brief of Profs. Amy Stuart Wells et al., *supra* note 134, at *2 ("*Amici* note, however, that the plans are not the kind of race-based policies that treat people of different races differently and therefore trigger strict scrutiny; rather, the plans are the kind of local, positive integration effort that the Court expressly has endorsed.").

[140] Brief of David J. Armor, et. al., *supra* note 129, at *5.

[141] *Id.*

- Racial Isolation Limits Access to Peers Who Can Positively Influence Academic Learning
- Racial Isolation is Associated with Lower Educational Outcomes[142]

The brief for the American Educational Research Association, in addition to citing multiple research findings, also rebutted the arguments of the Petitioners' amici and contained multiple footnotes criticizing the Armor, et al. and Murphy et al. amicus briefs for their "incomplete analyses of the literature, critiques of well-established scientific methodologies, and reliance on studies that are outdated or inconsistent with more recent research."[143]

The dichotomies between the scientists in *Parents Involved* show that the framing of constitutional arguments and supporting scientific evidence occurred at the appellate advocacy level, even before the Justices directly addressed the constitutionality of the plans. The legal arguments in the various scientific amicus briefs differ little from those in the parties' briefs or other amicus briefs, and the citation of science is designed largely to support those arguments. The amicus briefs supporting the plaintiffs are consistent with a legal framework that treats race-conscious policies as categorically unconstitutional "racial balancing" and treats the scientific evidence as indeterminate. The amicus briefs for the defendant school districts adopt a framework that is considerably more permissive of race-conscious measures and cite multiple studies that tip the balance strongly in favor of those measures.

As one analysis of the *Parent Involved* amicus briefs has shown, the research literature was certainly not unanimous in supporting a racial diversity interest, but the volume of studies and the breadth of support among researchers for the positive benefits of diversity weighed much more heavily in favor of the school districts.[144] Yet, only the four dissenting Justices in *Parents Involved* adopted a framework that considered the findings relevant and supportive of the compelling interest argument.

C. *Science and the* Parents Involved *Court*

The opinion of the *Parents Involved* Court—comprising those sections of Chief Justice Roberts's plurality opinion joined by Justice Kennedy—makes clear that the race-conscious assignment policies employed by the Seattle and

---

[142] Brief for 553 Soc. Scientists, *supra* note 131, at *i–ii. Similarly, a strongly-worded heading in the Wells et al. brief stated: "Social Science Evidence Overwhelmingly Confirms the Compelling Benefits of Racially Integrated Elementary and Secondary Schools." Brief of Profs. Amy Stuart Wells et al., *supra* note 134, at *8.

[143] Brief for Am. Educ. Research Ass'n, *supra* note 132, at *2.

[144] *See* Linn & Welner, *supra* note 127.

Louisville school districts did not satisfy strict scrutiny because they were not narrowly tailored.[145] In reaching its conclusion, the opinion of the Court cites no scientific research as constitutional fact. But further analyzing the Roberts, Kennedy, Thomas, and Breyer opinions[146] for the use and non-use of scientific evidence reveals not only depth of the ideological cleavages among the Justices in *Parents Involved* but also offers insights into the framing of their arguments and constitutional fact finding. Although only two of the opinions cite scientific findings, there are three identifiable frameworks in the *Parents Involved* cases: (1) a *presumptive racial balancing* framework employed by both Chief Justice Roberts and Justice Thomas that sees almost all race-conscious measures as categorically unconstitutional, (2) a *skeptical strict scrutiny* framework employed by Justice Kennedy that is highly exacting and wary of race-conscious measures, and (3) a *racial integration* framework employed by Justice Breyer that employs a more permissive cost-benefit approach to race-conscious policies similar to Justice O'Connor's analysis in *Grutter*.

1. *Roberts Plurality Opinion*

The Court has confirmed in recent years that it will apply strict scrutiny "to *all* racial classifications to 'smoke out' illegitimate uses of race by assuring that [government] is pursuing a goal important enough to warrant use of a highly suspect tool."[147] The compelling interest analysis in Chief Justice Roberts's plurality opinion that was not joined by Justice Kennedy is notable for going beyond the basic "smoking out" inquiry and reframing the school districts' racial diversity interest as a "racial balancing" interest. The plurality opinion itself cites no scientific research studies, but does

---

[145] *Parents Involved*, 127 S. Ct. at 2746–54, 2759–61. The Court concluded that the Seattle and Louisville policies were not necessary to achieve a goal of racial diversity and that the districts had failed to adequately consider race-neutral alternatives. *Id.* at 2759–61. Beyond the basic holding, however, the decision does not offer clear guidance on a number of key issues. Justice Kennedy refused to join the plurality's compelling interest analysis, and along with the four dissenting Justices formed a group of five Court members recognizing compelling interests in preventing racial isolation and promoting educational diversity; but there was no formal holding of the Court on the compelling interest question. Justice Kennedy's concurring opinion outlines his views on constitutionally acceptable programs, but it remains to be seen whether his opinion will be adopted as controlling by the courts in future litigation. *Id.* (Kennedy, J. concurring)

[146] I do not include Justice Stevens' dissent in this discussion because of its brevity and its focus on precedent and the proper interpretation of *Brown v. Board of Education*. *See id.* at 2797–2800 (Stevens, J., dissenting).

[147] Johnson v. California, 543 U.S. 499, 506 (2005) (quoting Richmond v. J.A. Croson Co., 488 U.S. 469, 493 (1989)).

acknowledge the dispute over the educational benefits of diversity. The opinion states:

> The parties and their *amici* dispute whether racial diversity in schools in fact has a marked impact on test scores and other objective yardsticks or achieves intangible socialization benefits. The debate is not one we need to resolve, however, because it is clear that the racial classifications employed by the districts are not narrowly tailored to the goal of achieving the educational and social benefits asserted to flow from racial diversity. In design and operation, the plans are directed only to racial balance, pure and simple, an objective this Court has repeatedly condemned as illegitimate.[148]

Chief Justice Roberts's argument rests on the assumption that the school districts' interests were detached from educational goals and linked only to demographic data and racial proportionality goals: "This working backward to achieve a particular type of racial balance, rather than working forward from some demonstration of the level of diversity that provides the purported benefits, is a fatal flaw under our existing precedent."[149]

In particular, the plurality opinion is critical of a weak point in the school districts' empirical argument, a question that was not strongly documented by the parties or by the amicus curiae briefs: What percentage or number of minority students are necessary to achieve the benefits of diversity or to avoid the harms of racial isolation? Although the plurality opinion notes trial court-level expert testimony on having "sufficient numbers so as to avoid students feeling any kind of specter of exceptionality" and the importance of having "at least 20 percent" minority group representation in order to have meaningful effects, the opinion ultimately rejects that evidence because of the linkage to district demographic data.[150] "The plans," according to the plurality, were "tied to each district's specific racial demographics, rather than to any pedagogic concept of the level of diversity needed to obtain the asserted educational benefits."[151]

By employing a framework that recast the racial diversity interest as a racial balancing interest, the plurality effectively isolated the *Parents Involved* cases from their roots in desegregation law and from any science that supported the school districts' interests. The plurality opinion severed any meaningful connections between the *Parents Involved* cases and post-*Brown* desegregation litigation by focusing on the distinction between remedying intentional de jure segregation and addressing unintentional de facto segregation; the plurality then divorced *Parents Involved* from *Grutter*

---

[148] *Parents Involved*, 127 S. Ct. at 2755.

[149] *Id.* at 2757.

[150] *Id.* at 2756.

[151] *Id.* at 2755.

by treating the higher education context as unique.[152] The Roberts plurality could then eliminate the need for any empirical basis for showing the benefits of diversity and the harms of racial isolation segregation. No amount of scientific evidence would have been sufficient to negate the reframing of the school districts' interests as racial balancing.

At the same time, the Roberts opinion asserts harms and costs resulting from the use of race, but does not cite to any scientific literature to support those assertions. In Part IV of his opinion, Chief Justice Roberts states that racial classifications are inherently suspect because they contribute to an escalation of racial hostility and conflict, and demean the dignity and worth of a person to be judged by ancestry instead of by his or her own merit. The Roberts plurality draws on both precedent and assumptions that are ostensibly commonsensical to support these claims, yet psychological research suggests that the picture is more complex.[153] Research indicates that the increased intergroup contact resulting from the use of racial classifications tends to reduce prejudice and intergroup conflict rather than increase it, and that while racial distinctions can lead to notions of inferiority, minority group members can bear feelings of inferiority regardless of whether racial classifications are sanctioned by the government.[154]

2. *Kennedy Concurring Opinion*

Justice Kennedy's concurring opinion in *Parent Involved* invokes a highly skeptical strict scrutiny standard but nevertheless acknowledges the school districts' compelling interests in avoiding racial isolation and achieving a diverse student population. The Kennedy opinion cites no scientific findings on the question of compelling interest, and is more directly reliant on constitutional values and precedent than on constitutional facts. For instance, in acknowledging that the legacy of *Brown* includes a legitimate objective of equal opportunity, Justice Kennedy employed idealistic language rooted in moral and constitutional values:

> This Nation has a moral and ethical obligation to fulfill its historic commitment to creating an integrated society that ensures equal opportunity for all of its children. A compelling interest exists in avoiding racial isolation, an interest that a school district, in its discretion and expertise,

---

[152] *Id.* at 2751–54.

[153] *See* Tropp, *supra* note 51, at 99–109 (comparing assertions of *Parents Involved* opinions with recent scientific findings).

[154] *Id.* at 101.

> may choose to pursue. Likewise, a district may consider it a compelling interest to achieve a diverse student population.[155]

Moreover, unlike the Roberts plurality, Justice Kennedy's opinion established a direct line between the *Parents Involved* cases and *Grutter* on the question of compelling interest, and reformulated the school districts' asserted interest in racial diversity as a broader, *Grutter*-like form of educational diversity in which "[r]ace may be one component of that diversity, but other demographic factors, plus special talents and needs, should also be considered."[156]

As Justice Kennedy's opinion reveals, a scientific predicate was not essential to establish that the school districts' interests were compelling, although the cases on which Justice Kennedy relied as precedent did include presentations and citations to scientific evidence. Justice Kennedy drew on the long history of desegregation litigation to argue for the interest in avoiding racial isolation: "Fifty years of experience since *Brown v. Board of Education*, should teach us that the problem before us defies so easy a solution. School districts can seek to reach *Brown's* objective of equal educational opportunity."[157] And his opinion turns directly to *Grutter* for support of the diversity interest: "In the administration of public schools by the state and local authorities it is permissible to consider the racial makeup of schools and to adopt general policies to encourage a diverse student body, one aspect of which is its racial composition."[158]

Justice Kennedy's opinion also omits any relevant findings on questions of harm related to racial classifications, as well as on the effectiveness of alternative policies that could satisfy constitutional standards. He cited no empirical authority for the propositions that "[g]overnmental classifications that command people to march in different directions based on racial typologies can cause a new divisiveness" or that "[t]he practice can lead to corrosive discourse, where race serves not as an element of our diverse heritage but instead as a bargaining chip in the political process."[159] Nor did his opinion cite research findings on the effectiveness of policies that he believed could supplant explicit racial classifications, which included strategic site selection of new schools, drawing attendance zones that recognize the demographics of neighborhoods, allocating resources for

---

[155] *Parents Involved*, 127 S. Ct. at 2755 (Kennedy, J., concurring in part and concurring in the judgment).

[156] *Id.*

[157] *Id.* at 2791 (citations omitted).

[158] *Id.* at 2792.

[159] *Id.* at 2797.

special programs, targeted recruiting of students and faculty, and tracking enrollments, performance, and other statistics by race.[160]

3. *Breyer Dissenting Opinion*

In contrast to the Roberts and Kennedy opinions, Justice Breyer's dissenting opinion offers extensive citations to empirical findings and includes appendices replete with tables, graphs, and multiple citations that document recent trends in racial isolation and resegregation. The opinion covers extensive ground in both law and constitutional fact, but two areas merit special attention: (1) the opinion's framing of strict scrutiny as the standard of review and (2) its use of scientific evidence to support Justice Breyer's strict scrutiny analysis and his assessment of the likely consequences of the Court's ruling.

Although the Breyer opinion ultimately casts its standard of review as strict scrutiny, it is clear that Justice Breyer envisioned a contextual and more deferential constitutional standard for the *Parents Involved* cases. Justice Breyer's opinion first notes that adopting a more lenient standard than strict scrutiny would not imply "abandonment of judicial efforts" to determine the need for race-conscious criteria and the criteria's tailoring in light of the need.[161] But his opinion then goes on to say that "in light of *Grutter* and other precedents, I shall . . . apply the version of strict scrutiny that those cases embody."[162] Nonetheless, Justice Breyer's version of strict scrutiny still contains a degree of deference to the school districts. The opinion states, for example, that "the evidence supporting an educational interest in racially integrated schools is well established and strong enough to permit a democratically elected school board reasonably to determine that this interest is a compelling one."[163] But as Justice Thomas properly notes in his concurring opinion, "[i]t is not up to the school boards—the very government entities whose race-based practices we must strictly scrutinize—to determine

---

[160] *Id.* For an analysis of the alternatives suggested by Justice Kennedy, as well as other policy options for school districts, see Erica Frankenberg, *Voluntary Integration After* Parents Involved*: What Does Research Tell Us About Available Options?* (Charles Hamilton Houston Inst. for Race & Justice, Working Paper, Dec. 2007), *available at* http://www.charleshamiltonhouston.org/Publications.aspx?year=2007.

[161] *Parents Involved*, 127 S. Ct. at 2819 (Breyer, J., dissenting). In the Ninth Circuit en banc decision of *Parents Involved*, Judge Kozinski had urged in a concurring opinion that a "robust and realistic rational basis review" was preferable to strict scrutiny because the Seattle plan carried "none of the baggage the Supreme Court has found objectionable in cases where it has applied strict scrutiny and narrow tailoring review." 426 F.3d 1162, 1194 (9th Cir. 2005) (Kozinski, J., concurring).

[162] *Parents Involved*, 127 S. Ct. at 2820 (citations omitted).

[163] *Id.* at 2821.

what interests qualify as compelling under the Fourteenth Amendment."[164] It is ultimately the Court's prerogative to determine whether an interest is sufficiently compelling, if strict scrutiny is indeed being applied. Justice Breyer's version of strict scrutiny, whether it is relaxed or truly strict, is nonetheless more permissive than Chief Justice Roberts's framework, and invites the use of scientific evidence to demonstrate the benefits and harms associated with the school districts' interests.

Justice Breyer's opinion confirms the view that an interest in promoting or preserving greater racial integration within the public schools is sufficiently compelling to justify the use of race-conscious measures.[165] His use of scientific evidence parallels his division of the school districts' racial integration interests into three interrelated elements: (1) "a historical and remedial element: an interest in setting right the consequences of prior conditions of segregation";[166] (2) "an educational element: an interest in overcoming the adverse educational effects produced by and associated with highly segregated schools";[167] and (3) "a democratic element: an interest in producing an educational environment that reflects the 'pluralistic society' in which our children will live."[168]

In addressing the historical/remedial element, Justice Breyer's opinion and its Appendix A turn to recent studies of resegregation documenting increasing levels racial isolation from the 1970s through the current decade.[169] These studies show that racial isolation has increased steadily from previous decades and in many areas is approaching levels that existed in the 1950s. In addressing the educational element, his opinion notes multiple studies which suggest that "children taken from [segregated] schools and placed in integrated settings often show positive academic gains"[170] and that "(1) black students' educational achievement is improved in integrated schools as compared to racially isolated schools, (2) black students' educational achievement is improved in integrated classes, and (3) the earlier that black students are removed from racial isolation, the better their educational outcomes."[171]

In addressing the democratic elements of the integration interest, the Breyer opinion cites several studies and identifies a number of findings: "black and white students in desegregated schools are less racially prejudiced

---

[164] *Id.* at 2778 (Thomas, J., concurring).

[165] *Id.* at 2820 (Breyer, J., concurring).

[166] *Id.*

[167] *Id.*

[168] *Parents Involved*, 127 S. Ct. at 2821.

[169] *Id.* at 2838–39 (Appendix A).

[170] *Id.* at 2820.

[171] *Id.* at 2821.

than those in segregated schools"; "interracial contact in desegregated schools leads to an increase in interracial sociability and friendship"; "both black and white students who attend integrated schools are more likely to work in desegregated companies after graduation than students who attended racially isolated schools"; "desegregation of schools can help bring adult communities together by reducing segregated housing"; and "[c]ities that have implemented successful school desegregation plans have witnessed increased interracial contact and neighborhoods that tend to become less racially segregated."[172]

Justice Breyer's opinion also cites scientific research to support various elements of his narrow tailoring analysis. He notes, for instance, that there is research-based evidence supporting the use of target ratios tied to a district's underlying population, and that a "ratio no greater than 50% minority . . . is helpful in limiting the risk of 'white flight.'"[173] Moreover, although he does not cite specific studies to support his point, Justice Breyer states that after "[h]aving looked at dozens of *amicus* briefs, public reports, news stories, and the records in many of this Court's prior cases," he could find "*no* example or model that would permit this Court to say to Seattle and to Louisville: 'Here is an instance of a desegregation plan that is likely to achieve your objectives and also makes less use of race-conscious criteria than your plans.'"[174]

In addition, Part V of the Breyer opinion—entitled "Consequences"—goes beyond the strict scrutiny analysis to assess the likely consequences of the Court's decision to strike down the Seattle and Louisville policies.[175] In this section as well, Justice Breyer employs constitutional facts and research studies to argue that the ruling would require setting aside the laws of several states and local communities.[176] The "Consequences" section quotes extensively from a U.S. Civil Rights Commission study assessing a wide range of desegregation strategies throughout the country, as well as statistics from a study examining the use of "open choice" plans in several states.[177] Referring again to Appendix A of his opinion, Justice Breyer notes the

---

[172] *Id.* at 2822.

[173] *Id.* at 2827.

[174] *Parents Involved*, 127 S. Ct. at 2827 (emphasis in original).

[175] Justice Breyer's attention to consequences is not specific to the voluntary desegregation context. *See* STEPHEN BREYER, ACTIVE LIBERTY 115–32 (2005) (discussing importance of examining consequences of court rulings as an element of constitutional interpretation).

[176] *Parents Involved*, 127 S. Ct. at 2833.

[177] *Id.* at 2831–32.

serious educational, social, and civil problems associated with resegregation that are likely to result from the Court's ruling.[178]

One rule that Justice Breyer did not attempt to articulate, however, is a specific evidentiary standard—either for the volume and strength of the scientific literature or for the level of agreement among researchers—needed to satisfy the compelling interest test. In a number of sections, his opinion indicates that there are some scientific research studies which reach conclusions contrary to the studies that he cites, but he ultimately concludes that the evidence supporting his position is either "well established" or "firmly established" and that it is either "strong enough" or "sufficiently strong" to make the integration interest compelling.[179] His opinion also makes the point that "[i]f we are to insist upon unanimity in the social science literature before finding a compelling interest, we might never find one."[180] These phrases alone suggest that a standard, if adopted, would likely require substantiality but not unanimity within a body of relevant literature.

4. *Thomas Concurring Opinion*

Justice Thomas's concurring opinion also contains extensive citations to scientific literature, but his opinion is designed primarily to rebut the arguments of Justice Breyer, so his analyses of the science do not represent an attempt to engage in a thorough balancing test or to evaluate the evidence against a legal standard that determines whether a scientific predicate sufficiently supports a compelling interest. Indeed, Justice Thomas, who was also a member of the Roberts plurality in *Parents Involved*, states unequivocally in the conclusion of his opinion that he has no tolerance for race-conscious measures: "The plans before us base school assignment decisions on students' race. Because '[o]ur Constitution is color-blind, and neither knows nor tolerates classes among citizens,' such race-based decisionmaking is unconstitutional."[181] Thus, his treatment of scientific evidence is highly skeptical, and he chastises Justice Breyer for adopting an approach that would leave equal protection jurisprudence "at the mercy of

---

[178] *Id.* at 2833.

[179] *Id.* at 2821, 2824.

[180] *Id.* at 2824. Justice Breyer also offered a counterargument to Justice Thomas's citation of the work of David Armor: "[Justice Thomas] is entitled of course to his own opinion as to which studies he finds convincing—although it bears mention that even the author of some of Justice Thomas' preferred studies has found *some* evidence linking integrated learning environments to increased academic achievement." *Id.* (citations omitted; emphasis in original).

[181] *Parents Involved*, 127 S. Ct. at 2788 (Thomas, J., concurring) (citations omitted).

elected government officials evaluating the evanescent views of a handful of social scientists."[182]

Justice Thomas focuses his discussion of the scientific research on its contestability and begins his analysis of the science by criticizing the dissent for "unquestioningly accepting the assertions of selected social scientists while completely ignoring the fact that those assertions are the subject of fervent debate."[183] The studies cited by Justice Thomas are placed largely in opposition to each other to show the inconclusiveness of the literature: "Scholars have differing opinions as to whether educational benefits arise from racial balancing. Some have concluded that black students receive genuine educational benefits. . . . Others have been more circumspect. . . . And some have concluded that there are no demonstrable educational benefits."[184] In addition, Justice Thomas noted that the *Parents Involved* amicus curiae briefs mirrored the divergence of scientific opinion, and criticized the amicus briefs supporting the school districts for not providing "specific details like the magnitude of the claimed positive effects or the precise demographic mix at which those positive effects begin to be realized."[185] Justice Thomas further cited research highlighting the success of black students in racially isolated environments[186] and consequently asserted that it was far from apparent that "coerced racial mixing has any educational benefits [and] that integration is necessary to black achievement."[187]

Later addressing the democratic element of Justice Breyer's integration interest, an element that Justice Thomas considered "limitless in scope,"[188] the Thomas opinion rejected the claim that increased interracial contact leads to improved racial attitudes and relations. First, Justice Thomas challenged the notion that more racially balanced schools necessarily result in increased contact between white and black students: "Simply putting students together under the same roof does not necessarily mean that the students will learn together or even interact."[189] In support of this assertion, his opinion cites

---

[182] *Id.* at 2778.

[183] *Id.* at 2773.

[184] *Id.* at 2776 (citations omitted).

[185] *Id.* Justice Thomas juxtaposed the amicus briefs of the American Educational Research Association and the 553 Social Scientists with the amicus briefs of Murphy et al. and Armor et al.

[186] Justice Thomas did not, however, indicate whether the studies focusing on black achievement reflected typical achievement levels or whether the particular nature of the program—special curriculum or enrichment attached to the school setting—was more influential on student achievement.

[187] *Parents Involved*, 127 S. Ct. at 2776.

[188] *Id*. at 2780.

[189] *Id.*

studies showing that students are often tracked into classes by ability, which results in racial segregation within a school. Second, Justice Thomas argued that the research literature provided no clear support for Justice Breyer's position, at least within the universe of studies that Justice Thomas cited, which were primarily from the 1970s and 1980s. The studies, he concluded, were largely equivocal, with some studies even finding "that a deterioration in racial attitudes seems to result from racial mixing in schools."[190] Thus no democratic element could support an integration interest because of the paucity of evidence supporting Justice Breyer's position.[191]

Although Justice Thomas's assessment of the literature is undoubtedly accurate in finding a lack of unanimity, his opinion makes no attempt to assess the volume of studies, the number of researchers supporting a position, the timing of the studies, or the levels of agreement and disagreement among the researchers. Thus, one study identifying educational benefits is weighed against another study showing no educational benefits, and one or two amicus briefs supporting the school districts are weighed equally against one or two amicus briefs supporting the plaintiff. While an assessment of the literature should not treat the research as a popularity contest, Justice Thomas's opinion contains no attempt to determine if a brief representing the view of over 500 researchers might carry more persuasive weight than a brief representing the view of three researchers. Nor does he assess whether more recent studies that supersede the findings of earlier studies should be considered more persuasive.[192] Indeed, Justice Thomas could easily be accused of adopting a cherry-picking strategy in selecting evidence, but given his framing of the compelling interest inquiry and his goal of undermining Justice Breyer's empirical arguments, his assessment of the research is unsurprising. And since his opinion does not articulate *any* standard under which the compelling interest inquiry could actually be met, Justice Thomas's analysis could readily conclude that the requirement was not satisfied.[193]

---

[190] *Id.* at 2781.

[191] *Id.*

[192] *See* Mickelson, *supra* note 14, at 1188 (comparing citation of older research by amicus briefs and the Court in *Parents Involved* with citation of more recent research and methodologies).

[193] *Parents Involved*, 127 S. Ct. at 2782. Justice Thomas's concluding language is strongly rhetorical: "Stripped of the baseless and novel interests the dissent asserts on their behalf, the school boards cannot plausibly maintain that their plans further a compelling interest." *Id.*

5. *Summary*

The multiple opinions in *Parents Involved* illuminate longstanding ideological differences within the Supreme Court—differences that have become even more acute with the latest composition of the Court and the alignment of the Justices. The constitutional frameworks adopted by the Justices in *Parents Involved* reflect these ideological differences, and the frameworks ultimately guided how the Justices sought constitutional facts and relevant scientific evidence. The Roberts plurality saw little need for constitutional fact finding once the school districts' interests in promoting diversity and addressing racial isolation had been transmuted into mere racial balancing interests. Justice Kennedy, relying on legal principles and precedent, did not turn to any constitutional fact finding either, although he reached a different conclusion on the compelling interest inquiries. Neither Justice Breyer nor Justice Thomas, the only Justices who cited scientific literature, provided doctrinal guidance on the appropriate uses of scientific evidence as constitutional facts, nor did they provide a standard to which a quantum of scientific evidence could be pegged in order to satisfy the compelling interest inquiry. Both of their analyses were grounded in their particular framing of strict scrutiny.

Problems related to the objectivity and selective use of scientific evidence clearly arose in *Parents Involved*, with competing expert witnesses, the submission of diametrically opposed sets of amicus curiae briefs, and markedly different analyses of research literature in the Thomas and Breyer opinions. Many of these problems may be intractable given the nature of the adversarial process and the constitutional frameworks of the Justices, but at least some of them can be traced to the lack of clear standards in fact finding and equal protection standards of review. As I propose in the next Part, there should still be room for reform in the area of constitutional fact finding and the use of scientific evidence, even if the entrenched frameworks of the Justices limit progress in the area of race-conscious policy making.

V. REFRAMING EQUAL PROTECTION ANALYSIS

As *Parents Involved* and other recent equal protection cases show, constitutional fact finding and the citation of scientific evidence are closely tethered to frameworks of constitutional interpretation. Values and ideological perspectives strongly shape these frameworks and delimit factual inquiries. Clearer and more consistent approaches to constitutional fact finding and the use of science could improve the courts' analyses, and there have been a wide range of recommendations for reform, including calls to

develop unitary theories of constitutional fact finding;[194] to establish principles of constraint, such as remanding cases to the lower courts for additional fact finding or ordering reargument in appropriate circumstances;[195] or to increase judicial capacity to gather scientific evidence through the appointment of experts or special masters[196] or through the creation of separate, specialized research services.[197] Yet, the federal courts have been highly resistant to change, and significant improvements seem unlikely given the unsuccessful history of many proposals. Indeed, the most basic of procedural steps—requiring the parties at trial to introduce both adjudicative and constitutional facts to produce as complete a record as possible—can be illusory; the appellate courts will still likely seek to go beyond the record for their own constitutional fact finding.

Rather than dwell on already well-tread recommendations to develop a coherent fact-finding theory or to expand the courts' capacity to address scientific evidence, I propose that shifts in the basic frameworks and substantive approaches to equal protection problems can lead to improvements in the usage of scientific evidence. My recommendations focus on articulating informational roles for scientific evidence in heightened scrutiny, and refocusing key questions in the compelling interest inquiries and the narrow tailoring inquiries. I resist suggesting, however, that the courts adopt a uniform standard for evaluating scientific evidence in isolation, and instead propose that the evaluation be linked to the nature of the legal inquiry and the total body of relevant evidence, including both scientific and non-scientific information.

A. *Future Litigation: Classifications and Standards of Review*

Key areas of equal protection analysis—determining the nature of a classification, determining a classification's applicable standard of review, and determining if a policy satisfies the standard of review—are all likely in the future to benefit from the empirical insights of relevant scientific evidence. The Supreme Court only occasionally addresses questions of whether a particular classification should be recognized or whether a particular classification should be subject to heightened scrutiny, but

---

[194] *See* DAVID L. FAIGMAN, CONSTITUTIONAL FICTIONS: A UNIFIED THEORY OF CONSTITUTIONAL FACTS 159–81 (2008).

[195] Kenneth L. Karst, *Legislative Facts in Constitutional Litigation*, 1960 SUP. CT. REV. 75, 95 (1960).

[196] Michael Rustad & Thomas Koenig, *The Supreme Court and Junk Social Science: Selective Distortion in Amicus Briefs*, 72 N.C. L. REV. 91, 158–60 (1993).

[197] *Id.* at 160; Kenneth Culp Davis, *Judicial, Legislative, and Administrative Lawmaking: A Proposed Research Service for the Supreme Court*, 71 MINN. L. REV. 1, 15 (1986).

scientific evidence could still play a role in addressing either of these questions. For example, recent developments in genetic science have led to concerns about discrimination by employers and insurers on the basis of genetic predispositions to illness. Statutes such as the federal Genetic Information Nondiscrimination Act of 2008 have been enacted to address potential problems.[198] New governmental classifications linked to genetic information—as well as to the intersection of genetics with race and gender—may develop over time, and constitutional law will likely need to turn to the latest scientific developments if problems of differential treatment arise. Inquiries may focus on whether a classification is actually a new one deserving special analysis, whether a genetic classification tied to particular racial groups or to one gender or another constitutes unconstitutional discrimination,[199] and whether classifications based on genetic predispositions merit heightened scrutiny.

Given recent trends in state equal protection law and ongoing controversies over same-sex marriage,[200] the federal courts may also be

---

[198] Pub. L. 110–233, 122 Stat. 881 (codified in scattered sections of 26 U.S.C., 29 U.S.C., and 42 U.S.C.). Among Congress's key findings in developing the Genetic Information Nondiscrimination Act of 2008 were the following:

> Deciphering the sequence of the human genome and other advances in genetics open major new opportunities for medical progress. New knowledge about the genetic basis of illness will allow for earlier detection of illnesses, often before symptoms have begun. Genetic testing can allow individuals to take steps to reduce the likelihood that they will contract a particular disorder. New knowledge about genetics may allow for the development of better therapies that are more effective against disease or have fewer side effects than current treatments. These advances give rise to the potential misuse of genetic information to discriminate in health insurance and employment. . . .
> [T]he current explosion in the science of genetics, and the history of sterilization laws by the States based on early genetic science, compels Congressional action in this area
> . . . .
> Congress clearly has a compelling public interest in relieving the fear of discrimination and in prohibiting its actual practice in employment and health insurance.

Id. at 881–82.

[199] Because of the intent requirement in equal protection jurisprudence, disparate impact alone is insufficient to prove intentional discrimination based on race or gender. *See* Washington v. Davis, 426 U.S. 229 (1976); Personnel Adm'r of Mass. v. Feeney, 442 U.S. 256 (1979). Additional evidence beyond a statistical correlation between a genetic predisposition on the one hand and race or gender on the other would be necessary to prove intentional discrimination on the basis of race or gender.

[200] *See* Kerrigan v. Comm'r of Pub. Health, 957 A.2d 407 (Conn. 2008) (Connecticut Supreme Court ruling that sexual orientation is a quasi-suspect classification and denial of marriage license to same-sex couples violates equal protection

addressing whether classifications based on sexual orientation deserve heightened review. In *Romer v. Evans*,[201] the Supreme Court applied a rational basis test in striking down a state constitutional provision that infringed on the rights of lesbians and gay men to access the political process, but did not address the question of whether sexual orientation is a suspect or semi-suspect classification. Questions such as whether sexual orientation is an immutable characteristic, whether there are historical and ongoing harms resulting from discrimination against lesbians, gay men, and bisexuals, and whether there are harms associated with same-sex marriage could be informed by relevant medical, psychological, and sociological findings—and would no doubt be offered by advocates on both sides of the issue.[202]

But the most contested issues of equal protection law are likely to revolve around questions of strict scrutiny and race. With the *Grutter* Court's opening the door to compelling interests other than the remediation of past discrimination, including forward-looking interests like promoting educational diversity in higher education, the federal courts will no doubt be called upon to assess whether a number of different race-conscious policies satisfy strict scrutiny. Indeed, because the *Parents Involved* Court itself did not provide a clear holding on whether promoting racial diversity and avoiding racial isolation in K–12 education are compelling interests, the question may still be subject to litigation. And there are a number of questions that the Supreme Court has not directly addressed, including the constitutionality of minority-only programs for K–12 and higher education students,[203] race-conscious policies designed to advance faculty diversity,[204]

---

under intermediate scrutiny); In Re Marriage Cases, 183 P.3d 384 (Cal. 2008) (California Supreme Court ruling that sexual orientation is a suspect classification and denial of marriage license to same-sex couples violates equal protection under strict scrutiny); Goodridge v. Dep't of Public Health, 798 N.E.2d 941 (Mass. 2003) (Massachusetts Supreme Judicial Court ruling that denial of marriage license to same-sex couples violates equal protection under rational basis test).

[201] 517 U.S. 620 (1996).

[202] Scientific evidence has been introduced in a number of previous Supreme Court cases involving sexual orientation, and members of the Court have cited findings from professional associations such as the American Psychological Association, the American Psychiatric Association, and the American Public Health Association in addressing questions of sexual orientation and mental health. *See* Boy Scouts of Am. v. Dale, 530 U.S. 640, 699–700 (2000) (Stevens, J., dissenting); Bowers v. Hardwick, 478 U.S. 186, 203 (1986) (Blackmun, J., dissenting).

[203] *See* Peter Schmidt, *Dow Jones Fund Opens Journalism Programs to White Students After Lawsuit*, CHRON. OF HIGHER EDUC., Feb. 23, 2007, at A18 (discussing lawsuit challenging minority-only summer program for aspiring journalism students); Andrija Samardzich, Note, *Protecting Race-Exclusive Scholarships from Extinction With*

and race-conscious employment policies to meet the operational needs of law enforcement and other public agencies.[205]

Moreover, a number of empirical questions that arose in *Parents Involved* were not thoroughly addressed by the Court or by advocates, and could arise in future cases addressing the narrow tailoring of race-conscious policies. For instance, the "critical mass" question of what might constitute a minimal or optimal percentage of minority students in a particular setting was a concern in the Roberts plurality opinion and the Thomas concurring opinion in *Parents Involved*, but neither the parties nor the amicus briefs supporting the school districts provided as much empirical support for this question as they did for the compelling interest question.[206] Another issue in *Parents Involved* focused on the use of race-neutral alternatives, which formed one basis for the Court's ruling against the school districts and was also highlighted in Justice Kennedy's concurring opinion; the relative effectiveness of race-neutral alternatives is likely to become a key inquiry in upcoming cases.

B. *Strict Scrutiny Frameworks and Evidentiary Standard*

Neither the Thomas concurrence nor the Breyer dissent in *Parents Involved* offered clear guidelines for determining the factual predicate to conclude that the school districts had satisfied strict scrutiny. Justice Thomas's insistence on virtual unanimity in the scientific literature is

---

an Alternative Compelling State Interest, 81 IND. L.J. 1121 (2006) (discussing constitutionality of minority-only scholarships).

[204] *See generally* L. Darnell Weeden, *Back to the Future: Should* Grutter's *Diversity Rationale Apply to Faculty Hiring? Is Title VII Implicated?* 26 BERKELEY J. EMP. & LAB. L. 511 (2005); Jonathan Alger, *When Color-Blind is Color-Bland: Ensuring Faculty Diversity in Higher Education*, 10 STAN. L. & POL'Y REV. 191 (1999). In *University and Community College System of Nevada v. Farmer*, the Nevada Supreme Court upheld a race-conscious faculty hiring plan under Title VII of Civil Rights Act of 1964, ruling that "race must be only one of several factors used in evaluating applicants" and "the desirability of a racially diverse faculty [is] sufficiently analogous to the constitutionally permissible attainment of a racially diverse student body. . . ." 930 P.2d 730, 735 (Nev. 1997). The *Farmer* Court did not directly address faculty diversity under constitutional standards, but noted the relationship between student body diversity and faculty diversity.

[205] *See* Lomack v. City of Newark, 463 F.3d 303 (3d Cir. 2006) (rejecting compelling interest in promoting racial diversity among fire fighters); Cotter v. City of Boston, 323 F.3d 160, 172 n.10 (1st Cir. 2003) (declining to address question of compelling interest but expressing sympathy for "the argument that communities place more trust in a diverse police force and that the resulting trust reduces crime rates and improves policing.").

[206] *See* Linn & Welner, *supra* note 127, at 33–35 (analyzing limited discussion of critical mass question in *Parents Involved* amicus curiae briefs).

unrealistic and unworkable, and Justice Breyer's opinion only hints at a possible standard. The Roberts plurality assumed away any empirical questions by recasting the districts' interests as racial balancing, and Justice Kennedy's opinion found no need to cite scientific findings to conclude that the school districts' interests were sufficiently compelling, relying instead on values, history, and precedent. Indeed, the Kennedy opinion raises the question of whether scientific evidence is even needed at all to answer the compelling interest inquiry. Looking ahead to future litigation, there may be two potential areas in equal protection doctrine that can shift the overall frameworks and the information gathering of the courts: (1) the reframing of strict scrutiny as a cost-benefit analysis and (2) the development of evidentiary standards in non-remedial strict scrutiny cases.

1. *Reframing Strict Scrutiny: Cost-Benefit Analyses*

Strict scrutiny, as the Court has reiterated in its recent cases, has traditionally been designed to "smoke out" illegitimate uses of race, so that a racial classification is not motivated by "illegitimate notions of racial inferiority or simple racial politics."[207] The Roberts plurality in *Parents Involved*, for example, saw little need for constitutional fact finding and summarily concluded that the school districts' objective was "racial balance, pure and simple," and thus constitutionally impermissible.[208] But smoking out true motives has not been the sole function of strict scrutiny in recent cases. As Justice O'Connor noted in *Adarand Constructors, Inc. v. Peña*, strict scrutiny also embodies a balancing of costs and benefits:

> [W]henever the government treats any person unequally because of his or her race, that person has suffered an injury that falls squarely within the language and spirit of the Constitution's guarantee of equal protection. . . . The application of strict scrutiny, in turn, determines whether a compelling governmental interest justifies the infliction of that injury.[209]

Justice O'Connor's contextual analysis in *Grutter* and Justice Breyer's dissent in *Parents Involved* represent clear turns toward cost-benefit

---

[207] City of Richmond v. J.A. Croson Co., 488 U.S. 469, 493 (1989) (plurality opinion).

[208] *Parents Involved*, 127 S. Ct. at 2755.

[209] 515 U.S. 200, 229–30 (1995). *See generally* Adams, *supra* note 110, at 1943 (discussing recent trends of cost-benefit balancing in equal protection cases); Kim Forde-Mazrui, *The Constitutional Implications of Race-Neutral Affirmative Action*, 88 GEO. L.J. 2331, 2359–64 (2000) (same); Jed Rubenfeld, *Affirmative Action*, 107 YALE L.J. 427, 436–44 (1997) (same).

balancing, where overall educational and social benefits were evaluated against burdens and harms to individuals who might be adversely affected by race-conscious policies. In *Grutter*, Justice O'Connor weighed the educational benefits of diversity, which were "substantial" and "not theoretical but real,"[210] against the fact that an individualized race-conscious admissions policy "does not unduly harm nonminority applicants."[211] Similarly, Justice Breyer's dissent in *Parents Involved* concluded that eradicating the "remnants . . . of primary and secondary school segregation," creating "school environments that provide better educational opportunities for all children," and creating "citizens better prepared to know, to understand, and to work with people of all races and backgrounds,"[212] far outweighed the costs of using racial criteria that affected "potentially disadvantaged students less severely, not more severely, than the criteria at issue in *Grutter*."[213]

Examining strict scrutiny through a cost-benefit frame highlights multiple inquiries under the Court's existing compelling interest/narrow tailoring inquiries. The compelling interest inquiry must focus on both the importance of a policy and its motivation; adjudicative facts are critical to assess sincerity in motives, but constitutional facts are central to the policy determination that a law is sufficiently important to be compelling. Whether an interest is important is, of course, not a purely empirical inquiry; it is intertwined with value judgments that reflect moral and constitutional norms. Indeed, some interests may be so strongly valued—for example, governmental interests in protecting national security or in remedying past racial segregation under law—that they are unlikely to be challenged as insufficiently important, even if the government's true motives may be invidious or the challenged policy does not satisfy narrow tailoring. But constitutional facts rooted in empirical inquiries can clearly inform those value judgments when the assessment involves other types of social benefits. The *Grutter* Court's analysis, for example, makes clear that empirical evidence of the concrete educational benefits that accrue to a wide range of students, not merely underrepresented minorities, underscore the importance of diversity as a governmental interest that can justify race-conscious policy making.

---

[210] *Grutter*, 539 U.S. at 330.

[211] *Id.* at 341.

[212] *Parents Involved*, 127 S. Ct. at 2823.

[213] *Id.* at 2825 (emphasis omitted).

Elements of narrow tailoring can also turn to constitutional facts in cost-benefit versions of strict scrutiny.[214] The *Grutter* Court confirmed that inquiries into three areas were central to a narrow tailoring analysis of university admissions programs: (1) the necessity of particular race-conscious policies, (2) the burdens on non-minority applicants, and (3) the viability of workable race-neutral alternatives. An inquiry into the necessity of a particular policy addresses the specific benefits of that policy and its relative strength compared to other policies (or to no policy at all); an inquiry into undue burdens addresses the costs to third-parties who may be injured by a policy; and an inquiry into race-neutral alternatives compares the costs and benefits of a challenged policy against the costs and benefits of policies that do not employ race. All of these inquiries are highly relevant in future challenges to race-conscious policies and could rely on empirical research that assesses the benefits and costs of various policies.

The Supreme Court has not yet developed an explicit cost-benefit framework to complement its compelling interest and narrow tailoring inquiries under strict scrutiny. Nor is it entirely clear under *Grutter* how much the benefits must outweigh the costs in order to satisfy strict scrutiny, although there is no question that the benefits must be significant and costs quite small in order to justify a race-conscious policy. And there can be a danger, as Jed Rubenfeld has cautioned, that strict scrutiny can become "an escape hatch through which government can, with impunity, violate equal protection principles in the name of more important state interests."[215] Yet, as the Court moves forward in addressing a variety of asserted governmental interests and race-conscious policies, the weighing of societal benefits against the costs to affected individuals seems inevitable. Any shift to cost-benefit analysis clearly implies that constitutional facts, including scientific evidence, will be crucial in strict scrutiny inquiries because of the need to establish the value of social costs and benefits, as well as to assess the balance between the two.

2. *Evidentiary Standards: Strong Basis in Evidence*

Developing workable evidentiary standards under either a cost-benefit framework or the traditional smoking-out framework of strict scrutiny presents another set of challenges. First, equal protection doctrine is subject to more variability after *Grutter* because of the Court's determination that

---

[214] For an evaluation of cost-benefit approaches to narrow tailoring in university admissions, see Ian Ayres & Sydney Foster, *Don't Tell, Don't Ask: Narrow Tailoring After* Grutter *and* Gratz, 85 TEX. L. REV. 517 (2007).

[215] Rubenfeld, *supra* note 208, at 440.

there can be contextual differences in strict scrutiny.[216] Even though the Roberts plurality in *Parents Involved* did not extend the same degree of deference to the K–12 educational setting that Justice O'Connor extended in *Grutter's* higher education setting, context could still matter in future cases. A more relaxed form of strict scrutiny might not necessitate a strong evidentiary requirement because of the good-faith deference afforded to an institution, but, assuming that the courts continue to apply versions of strict scrutiny that are more exacting and searching, a basic evidentiary requirement would be consistent with the underlying goals of the compelling interest and narrow tailoring inquiries. [217] Second, an evidentiary standard must be workable and realistically attainable so that the strict scrutiny standard does not become "fatal in fact." Justice Thomas's framework in *Parents Involved*, for instance, is so doctrinaire and inflexible that nothing short of unanimity in the scientific evidence could possibly satisfy the compelling interest requirement. Establishing an explicit evidentiary requirement should build on standards that are both attainable and sufficiently rigorous to make the strict scrutiny inquiry a meaningful one.

The Supreme Court already requires factual predicates for strict scrutiny in one line of equal protection cases. In cases involving the remediation of past racial discrimination, the Court has insisted on adjudicative fact finding and established a "strong basis in evidence" requirement to ensure that a government's remedial interest is justified by a past history of significant and particularized discrimination.[218] The interest in remedying discrimination is, in the abstract, a compelling interest because of the importance of redressing past legal harms, but the courts apply the strong basis in evidence rule and evaluate statistical analyses and other evidence of specific discrimination by an institution in order to smoke out and ensure that remediation reflects the government's true motivating interest. While the Court has not established an evidentiary rule for strict scrutiny outside the remedial context, adapting workable rules in appropriate non-remedial settings could ensure that race-conscious policies are motivated by important policy goals, rather than racial politics, and that the courts engage in accurate cost-benefit calculations. There is no guarantee that judges who are predisposed to characterize nearly all uses of race as "racial balancing" will find a body of evidence to be

---

[216] *See* Angelo N. Ancheta, *Contextual Strict Scrutiny and Race-Conscious Policy Making*, 36 LOY. U. CHI. L.J. 21 (2004).

[217] The intermediate scrutiny standard represents a ratcheted-down version of strict scrutiny, but is still searching and exacting. By implication, an evidentiary standard for strict scrutiny could serve as an initial benchmark for intermediate-level analyses, but presumably the standard would be more relaxed in intermediate scrutiny cases.

[218] *See, e.g.*, Shaw v. Hunt, 517 U.S. 899, 909–10 (1996); *Croson*, 488 U.S. at 500. *See generally* Nicki Herbert, Comment, *Appellate Review of "A Strong Basis in Evidence" in Public Contracting Cases*, 77 U. COLO. L. REV. 193 (2006).

sufficient, but applying an evidentiary standard would at least establish a process by which courts would carefully evaluate the evidence and not make mechanical or automatic decisions about a policy's constitutionality.

Employing a requirement for a strong basis in evidence in non-remedial (and non-deferential) strict scrutiny analyses would mandate that a significant quantum of evidence be introduced by the government, and would also require trial courts, at least in cases of first impression where the constitutional law questions remain unsettled, to engage in extensive fact finding for both adjudicative and constitutional facts.[219] The government would bear the initial burden of producing substantial evidence of the benefits of their policy along with evidence designed to satisfy various elements of narrow tailoring. The types of evidence will no doubt vary from case to case, but evidence of a policy's need—both absolute and relative to other policies—its value, the consequences of adopting the policy, and its burdens and costs are likely to be essential in most cases. Plaintiffs challenging a policy should then bear the burden of producing significant evidence that rebuts the government's evidence.[220] Shifting constitutional fact finding to the trial court level would place additional burdens on the parties to introduce evidence at trial (and to turn to amici curiae earlier in the litigation), but it would not be unreasonable since "legislators, not judges, have primary responsibility for drawing policy conclusions from empirical fact"[221] and government should be marshalling evidence of the benefits and costs of race-conscious policies well in advance of potential litigation.

The filtering and gatekeeping functions of the trial court would be available to regulate all types of evidence, even if the trial court chose to apply more open-ended analyses to constitutional facts. Constitutional facts, including relevant scientific information, would be used to inform the value

---

[219] In the context of higher education admissions, Goodwin Liu has outlined an evidentiary standard for addressing both the importance of a compelling interest and the sincerity of governmental motives. Goodwin Liu, *Affirmative Action in Higher Education: The Diversity Rationale and the Compelling Interest Test*, 33 HARV. C.R.-C.L. L. REV. 381, 401–10 (1998). Although his analysis predates the *Grutter* decision, Liu suggests that a strong basis in evidence requirement in a non-remedial setting would ensure that courts are able to make informed judgments about the importance of race-conscious policies and are able to smoke out true governmental motives.

[220] A common expression of the plaintiffs' burden in remedial settings is the following: "After the government's initial showing, the burden shifts to [the plaintiff] to rebut that showing: 'Notwithstanding the burden of initial production that rests' with the government, '[t]he ultimate burden [of proof] remains with [the challenging party] to demonstrate the unconstitutionality of an affirmative-action program.'" Adarand Constructors, Inc. v. Slater, 228 F.3d 1147, 1166 (10th Cir. 2000) (citations omitted).

[221] Dist. of Columbia v. Heller, 128 S. Ct. 2783, 2860 (2008) (Breyer, J., dissenting) (discussing role of legislature and courts in addressing policy conclusions drawn from a wide range of empirical studies).

judgment about a governmental interest's importance and its social benefits and costs. Adjudicative facts for a particular program would also be part of the calculus and would be useful in determining the sincerity of the governmental objective and smoking out any illicit motives. A formal evidentiary standard would thus move the primary basis for constitutional and adjudicative facts to the creation of a trial record rather than placing a heavy reliance on amicus briefs and other sources of constitutional fact in the appellate courts.

However, in proposing that the lion's share of fact finding shift to the trial courts, I do not suggest that constitutional fact finding by appellate courts should be restricted in any significant way. The appellate courts, including the Supreme Court, should not mechanically defer to trial court findings of constitutional fact and should still have the ability to go beyond the record on questions of law. But I do propose that the trial court play a more important precursory role as the gatekeeper and initial evaluator of constitutional facts under a requirement that strict scrutiny be satisfied through a strong basis in evidence.

Nor am I proposing a *science-specific* evidentiary standard for either the compelling interest requirement or the narrow tailoring requirement under strict scrutiny. Instead, I am offering a more general fact finding standard that would include relevant scientific and non-scientific evidence. At this level, the proposal may elide some of the difficult questions that arise with the use of scientific evidence, but making the compelling interest and narrow tailoring inquiries contingent upon a scientific predicate would be both unwise and overly circumscribed. As I discussed in Part II of this Essay, basing a constitutional ruling entirely or largely on scientific evidence can leave a decision on unstable ground. Moreover, there is no guarantee that scientific evidence will be available on a particular legal question given, as one court of appeals has noted, "the leisurely pace at which most academic research proceeds." [222] Indeed, "[i]f academic research is required to validate any departure from strict racial neutrality, social experimentation in the area of race will be impossible despite its urgency."[223] This is not to say that scientific findings cannot be highly informative or cannot significantly tip the balance in a compelling interest or narrow tailoring inquiry. In educational rights cases like *Grutter* and *Parents Involved*, the body of scientific research may be highly developed. But a general rule for strict scrutiny should look at the totality of evidence to determine whether it is sufficient to substantiate a government's defense of a race-conscious policy.

---

[222] Wittmer v. Peters, 87 F.3d 916, 920 (7th Cir. 1996), *cert. denied*, 519 U.S. 1111 (1997).

[223] *Id.*

Determining whether there is a significant body of scientific research that addresses a strict scrutiny inquiry would thus be a threshold question for a court engaging in constitutional fact finding. If the research literature is insubstantial or clearly inconclusive, the court might still turn to other sources, including witness testimony, historical sources, and anecdotal sources, with an understanding that the absence of scientific information, while not fatal, could weaken the defense of a race-conscious policy. If there is a significant body of scientific evidence relevant to constitutional fact finding, a trial court could employ traditional screening mechanisms for expert testimony, such as examining whether a scientific theory has been tested and is falsifiable, examining whether it has been subjected to peer review and publication, assessing the standards employed for a specific scientific theory and its error rate, and assessing the theory's general acceptance within a scientific community. [224] The appellate courts are not able to engage in cross-examination and other assessments of witness credibility, but they could still engage *sua sponte* in comparable gatekeeping of the information contained in amicus briefs and other sources.[225]

Because of the Justices' strongly ideological frameworks in cases involving race and other controversial subjects, it seems unlikely that a requirement for a strong basis in evidence would have changed the basic votes in cases like *Grutter* or *Parents Involved.* In *Grutter*, the University of Michigan offered extensive evidence at trial that likely would have satisfied a strong basis in evidence requirement, even if the Supreme Court had not adopted a more deferential strict scrutiny framework. However, an evidentiary requirement might have changed the litigation posture of the *Grutter* plaintiffs, who might have introduced oppositional evidence or conducted more cross-examination at trial. The *Grutter* Court ultimately relied on a variety of sources to reach its compelling interest conclusion, including both scientific and non-scientific evidence, but might have engaged in a more thorough analysis of the educational benefits literature and might

---

[224] *See* Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 593–95 (1993); FED. R. EVID. 702.

[225] A court might also have to determine, if there was some disagreement in the literature, whether the literature as a whole was sufficient to support a challenged policy. In contrast to Justice Thomas's approach in *Parents Involved*, a court employing a more realistic standard should take into account the fact that no field of inquiry will have unanimity within its literature. An evidentiary standard drawing on general acceptance, which is an existing element of gatekeeping under the federal rules of evidence, or a specific standard such as a "strong majority" implied by Justice Breyer in *Parents Involved* would be superior to Justice Thomas's unworkable unanimity standard. A trial court could rely on an expert witness or a special master to make such a determination, while an appellate court could make its own determination through an evaluation of the available evidence.

have examined additional scientific evidence that bore on the cost elements of narrow tailoring, including undue burdens and race-neutral alternatives.

In *Parents Involved,* the defendant school districts also offered a significant quantum of evidence at trial, and the trial courts engaged in a careful analysis of the science. But in the Supreme Court, the Roberts plurality was disinclined to look beyond the barest of adjudicative facts. Given the ideological grounding of their framework, if the Roberts plurality had engaged in a cost-benefit analysis it might still have reached the same conclusions; however, the opinion would have reflected an extra level of analysis that would have better illuminated their core value judgments. Justice Thomas also might have reached an identical legal conclusion in *Parents Involved*, but his analysis of the scientific evidence might have been more evenhanded if he had been bound by a standard in which something less than unanimity in the literature were required. A turn to the empirical might not have strongly influenced Justice Kennedy's conclusions, but it would have elucidated more of his narrow tailoring concerns and would have shone more light on the viability and relative effectiveness of his alternatives to the school districts' race-conscious assignment policies. At the very least, equal protection doctrine and guidance for policy makers and the lower courts would have been better developed in *Grutter* and *Parents Involved* through a strong basis in evidence requirement, notwithstanding the Justices' fixed voting alignments.

CONCLUSION

As policy makers, researchers, and the courts move forward with the development and assessment of race-conscious policies and other governmental actions that trigger equal protection analysis, it will be essential to draw on social facts and relevant scientific evidence. *Parents Involved* and other recent equal protection cases demonstrate that constitutional fact finding and the citation of scientific evidence are complex endeavors closely bound to constitutional frameworks. Scientific evidence can fit into these frameworks in many ways, and changes to the inquiries and the evidentiary bases for equal protection analysis may yield better reasoned and less purely ideological decisions. Ultimately, however, the task of constitutional interpretation remains centrally driven by constitutional values. The insights of scientific evidence may be critical to litigation in the short run, but their more powerful influence may be in the long run as "modern authority" that helps frame and inform evolving norms of equality.