Research on the Death Penalty

A Different Agenda: The Supreme Court, Empirical Research Evidence, and Capital Punishment Decisions, 1986–1989

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This article examines the Supreme Court's use of social science research evidence in 28 capital punishment cases decided between 1986 and 1989. The study describes the frequency and major correlates of the justices' citation of social science authorities in the 1986–89 sequence of cases. Social science evidence figured significantly in several death penalty cases, although a majority of the justices were more eager to discredit and discount research conclusions than to use them as premises for their decisions, and prevailing case opinions generally promoted principles that had little to do with empirical evidence concerning the administration of capital punishment. Social science citation patterns in majority and dissenting opinions, and in the opinions of "liberal" and "conservative" Supreme Court justices, in significant respects parallel the Court's shifting doctrinal premises in capital punishment decisions.

The constitutional jurisprudence of capital punishment has "gone from pillar to post" over the past quarter-century (*Lockett v. Ohio* 1978:629, Rehnquist, J., dissenting) and has aptly been characterized by Supreme Court Justices themselves as "byzantine" (*Sochor v. Florida* 1992:2130, Scalia, J., concurring), "exceedingly complex" (*Murray v. Giarratano* 1989:27, Stevens, J., dissenting), and "contradictory" (*Walton v. Arizona* 1990:3065, Scalia, J., concurring). The Court's death penalty decisions have alternatively reflected dramatic doctrinal swings and gradual yet perceptible shifts in premises and reasoning. Prior to *Furman v. Georgia* (1972), the Court was besieged with claims that the death penalty was administered unfairly and was a constitutionally excessive punishment (Meltsner 1973). After

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skirting and then rejecting these contentions (*Boykin v. Alabama* 1969; *Maxwell v. Bishop* 1970; *McGautha v. California* 1971), the justices executed an abrupt about-face in *Furman* and ruled that the death penalty was unconstitutional as administered, thus invalidating capital sentencing statutes throughout the land. A scant four years later the Court upheld reform legislation that narrowed the class of offenses punishable by death and that incorporated standards designed to guide sentencing discretion (*Gregg v. Georgia* 1976; *Jurek v. Texas* 1976; *Proffitt v. Florida* 1976).

When the justices invalidated standardless death penalty legislation in *Furman* and again when they upheld "guided discretion" capital sentencing statutes in the 1976 cases, their decisions appeared to rely heavily on their understanding of how death penalty statutes functioned in actual operation (Bowers 1984:193–205; Cornell Law Review 1984; Weisberg 1983). *Furman* itself reflected the justices' misgivings about whether capital punishment legislation was being imposed evenhandedly and whether, as administered, the death penalty promoted legitimate penological objectives.[1] The Court's subsequent approval of reformed capital sentencing statutes rested in part on the justices' acceptance of different empirical propositions, or "social fact" assumptions (Davis 1942; Marvell 1978:139–56). The prevailing Court opinions deferred to the reasonableness of legislative judgments about the death penalty's effectiveness as a deterrent to crime and expressed confidence that "guided discretion" statutes would minimize the risk that capital punishment would be imposed in an arbitrary or impermissibly discriminatory manner (*Gregg v. Georgia* 1976). Such assumptions spurred researchers to intensify their study of the social fact issues relevant to the administration of capital punishment laws. The resulting studies produced important new evidence about the very issues the justices had defined as integral to their constitutional rulings.

This article focuses on the patterns of social science citations in the death penalty cases decided by the Supreme Court between 1986 and 1989. It complements an earlier study of the

[1] Each of the five justices who concluded in *Furman v. Georgia* (1972) that the death penalty was a cruel and unusual punishment, as administered, was concerned that capital sentences were imposed unfairly or were ineffective to accomplish acceptable goals of punishment. Justice Douglas perceived invidious discrimination in the application of death penalty statutes (pp. 255–57); Justice Stewart focused on the random or capricious manner in which capital sentences appeared to be imposed (pp. 308–10); and Justice White doubted that the infrequent and sporadic use of capital punishment in fact promoted legitimate sentencing objectives (pp. 312–13). Justices Brennan (pp. 257–306) and Marshall (pp. 314–74) were of the opinion that capital punishment per se violated the Eighth Amendment's cruel and unusual punishment clause, but each cited the arbitrary administration of death penalty statutes and expressed doubts, in justification of their conclusions, that capital punishment was necessary or effective to accomplish deterrence and other sentencing objectives.

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justices' uses of social science research evidence in capital punishment decisions between 1963 and 1985 (Acker 1991) and thus permits consideration of the Court's social science citation practices in death penalty cases decided over a considerable period of time. In the 28 death penalty cases decided between 1986 and 1989 the Court laid to rest a number of highly important constitutional issues.[2] So sweeping were the issues resolved in these cases that the Court may have reached the "end of an era in the jurisprudence of the death penalty," one in which little else remains but "the possibility of small scale tinkering with the details of administration" (Burt 1987:1741). With rare exception, the decisions in these cases revealed a radical schism between legal doctrine and the logical implications of related empirical research evidence: capital punishment practices were upheld notwithstanding impressive social science evidence reflecting the very problems of administration that earlier Court decisions seemingly had condemned.

Most published research concerning the administration of capital punishment has produced evidence that has been far more congenial to justices who have perceived constitutional deficiencies in death penalty cases than to justices who have been willing to uphold capital convictions and sentences. Justices in majority and dissenting opinions in capital cases, by hypothesis, would be expected to make significantly different use of these research conclusions. The patterns of social science citations in these opinions help illuminate how the justices may influence and communicate with one another as they address social fact issues in their case decisions. This article explores these and related issues by describing the frequency with which social science research evidence has been cited, discussed, and quoted in the Court's 1986–89 death penalty cases. It identifies the types of social fact issues in these cases which attracted social science citations and related discussion, reports on the justices' uses of social science evidence in majority and dissenting opinions, and describes the individual justices' citation of social science studies. It also examines the types of cases that produced the largest number of social science citations, identifies the kinds of social science references cited by the justices, and describes the degree of correspondence between social science references cited in case opinions and in briefs filed in the same cases. It concludes with observations about the significance of

[2] Among the major issues resolved during this time interval were whether the death qualification of guilt phase jurors undermines the impartiality and representativeness of capital juries (*Lockhart v. McCree* 1986), whether race discrimination fatally infected the administration of capital punishment in Georgia (*McCleskey v. Kemp* 1987), and whether minors (*Stanford v. Kentucky* 1989; *Thompson v. Oklahoma* 1988) and the mentally retarded (*Penry v. Lynaugh* 1989) are constitutionally exempt from the capital sanction.

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empirical research studies to the Court's developing death penalty jurisprudence.

I. Methodology and Data

Twenty-eight death penalty cases were decided by the United States Supreme Court between 1986 and 1989[3] (see Appendix A). Information was recorded about the justices' citation of social science research evidence in each of these published decisions. "Social science research evidence" was defined as:

> information derived from the traditional *methods* of science—through systematic observation and objective measurement, allowing for replication and empirical verification—and within the *subject* purview of the social sciences, the study of behavioral events relevant to individuals and social relations, including psychology, sociology, psychiatry, economics, political science and criminal justice, but not history.[4] (Acker 1990a:4)

Citations of social science research evidence within the 132 briefs that were filed with the Supreme Court in these 28 capital punishment cases also were tabulated.

A systematic record was kept of the frequency with which social science research evidence was cited in the Supreme Court cases and briefs. Other specific information was collected, including the types of opinions making use of social science evidence (plurality, majority, concurrence or dissent), which justices cited social science materials, whether social science references were cited in the text of opinions or in footnotes, and the number of lines of print in each opinion devoted to the discussion and quotation of research evidence.[5] These latter measures were used as very rough indicators of the significance of social science information to Court opinions.

The empirical issues associated with social science citations

[3] The universe is limited to death penalty cases that received full briefing and argument. It does not include applications for stays of execution or cases in which the Court denied certiorari or summarily rendered judgment without receiving briefs.

[4] The study focused on the use of social science research evidence for the establishment of legal rules, rather than to help establish case-specific "adjudicative facts." Accordingly, information was recorded about social science citations only when research evidence was used to discuss "legislative facts" or "social authority," the broad empirical propositions important to legal rulemaking (see Davis 1942; Monahan & Walker 1986; Saks 1990). Social science evidence that was cited for issues not relevant to capital punishment was not of interest to this study, and information about such citations was not recorded.

[5] The number of lines of discussion and lines of quotation of social science research evidence are based on Supreme Court opinions as reported in the *U.S. Supreme Court Reports, Lawyers' Edition*. "Lines of quotation" is a subset of "lines of discussion" of social science evidence. In other words, quoted material is included within the amount of discussion devoted to social science references and does not represent additional discussion of the cited reference.

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also were identified, and a record was made of the amount of discussion and quotation of research evidence devoted to the separate issues. The empirical issues that figured in these decisions included the deterrent efficacy of capital punishment, the racially discriminatory or arbitrary application of the death penalty, and the functioning of capital juries, in addition to others. Finally, the types of references that were cited as social science authorities were noted, along with whether the references relied upon in the justices' opinions had first been cited in any of the briefs filed in the corresponding Supreme Court case. Six types of sources or references for social science research evidence were identified: law reviews and other publications referenced within the *Index to Legal Periodicals* (*ILPs*); journals not referenced within the *Index to Legal Periodicals* (non-*ILPs*); books; statistical compilations (e.g., the *Uniform Crime Reports* or the *Sourcebook of Criminal Justice Statistics*); government documents or reports; and others.

II. The Uses of Social Science Research Evidence in Supreme Court Death Penalty Decisions: Results and Discussion

A. Social Science Citation Patterns: Frequency, Case Issues, and Opinion Types

The justices cited social science research evidence in 10 of the 28 death penalty cases (35.7%) decided between 1986 and 1989. This represents far more regular use of social science than occurs in criminal decisions generally: only 13.8% of a random sample of 240 Supreme Court criminal cases decided between 1959 and 1988 cited one or more social science references (including just 12.5%, or 5 of the 40 cases in the subsample of cases decided between 1984 and 1988) (Acker 1990a). A greater proportion of the Court's earlier capital punishment decisions—45.8%, or 22 of the 48 cases decided by full opinion between 1963 and 1985—incorporated social science research findings (Acker 1991). In this most recent set of death penalty decisions, an overwhelming share of the citation and discussion of social science authorities occurred in just five cases: *Lockhart v. McCree* (1986), *McCleskey v. Kemp* (1987), *Thompson v. Oklahoma* (1988), *Penry v. Lynaugh* (1989), and *Stanford v. Kentucky* (1989) (see Appendix B).

Collectively, these five cases accounted for roughly 95% of the Court's citation, discussion, and quotation of social science references, while all other cases in the sample accounted for the remaining 5%. This starkly divergent pattern in the use of social science within the 1986–89 death penalty decisions is largely explained by the nature of the issues confronting the

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justices in these cases. Most of the decisions during this period presented case-specific issues involving particular aspects of capital trials or legislation. Only a few cases prominently involved issues of legislative fact, which in turn made social science research evidence important to the justices' decisions.

It is not surprising that social science evidence was not used in many death penalty decisions. Research evidence has little to contribute to the resolution of such issues as whether a New York court's judgment invalidating a felony conviction relied upon in a Mississippi capital sentencing decision must be honored by the Mississippi courts (*Johnson v. Mississippi* 1988); or whether a lawyer's failure to investigate and present potential mitigating evidence at a capital sentencing hearing amounts to constitutionally ineffective assistance of counsel (*Burger v. Kemp* 1987); or whether state procedures governing the consideration of mitigating evidence at death penalty hearings are consistent with Eighth Amendment requirements (*Franklin v. Lynaugh* 1988; *Hitchcock v. Dugger* 1987; *Mills v. Maryland* 1988).

On the other hand, each of the five cases that dominated the Court's use of social science involved social fact issues which made empirical evidence directly relevant or even essential to the justices' case decisions. *McCree* forced the Court to resolve whether the death qualification of jurors for the guilt-determination phase of a capital trial produced conviction-prone juries and threatened the impartiality and representativeness of the trial jury; *McCleskey* involved allegations that race discrimination systematically tainted the administration of Georgia's capital punishment legislation; and *Thompson, Stanford*, and *Penry* raised questions about the volitional control and the cognitive and moral development of juveniles and the mentally retarded, and whether capital punishment serves legitimate penological objectives when employed against such offenders. Social science evidence naturally is most relevant to cases in which legal and empirical issues are intertwined. Thus, the very nature of the cases on the Court's docket to a large extent explains the patterns of social science citations in these Supreme Court decisions (cf. Acker 1990a:5–7; Karst 1960; Rosenblum 1978).

This generalization of course does not account for all circumstances in which the justices did or did not make use of social science. For example, in *Turner v. Murray* (1986) the Court held that black defendants charged with the capital murder of white victims must always be allowed to direct voir dire questions to prospective jurors concerning their racial prejudices. In coming to this conclusion, the Court ignored the extensive body of social science research discussed in the briefs that addressed racial discrimination in capital sentencing and that could have been cited in this case decision. Similarly, in

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Ford v. Wainwright (1986) the justices cited no research evidence while ruling on the substantive and procedural rules pertaining to the execution of the mentally incompetent. The brief writers in *Ford*, including the American Psychiatric Association and the American Psychological Association as amici, devoted considerable discussion to related social science information.

As the Court's modern death penalty jurisprudence developed through the mid-1960s and into the 1970s and early 1980s, the justices most frequently cited social science evidence to discuss the deterrent efficacy of capital punishment (27.2% of social science citations) (e.g., *Furman v. Georgia* 1972; *Gregg v. Georgia* 1976), and to address issues related to incapacitation and the future dangerousness of capital offenders (19.9% of social science citations) (e.g., *Barefoot v. Estelle* 1983). Descriptive statistics concerning death row populations, executions, and homicide rates (18.0%); evidence relating to the arbitrary or racially discriminatory use of the death penalty (18.0%); and jury issues (7.0%) accounted for the majority of the other social science citations in these earlier cases (Acker 1991). The justices used social science research evidence to examine a different range of issues in their death penalty decisions from 1986 through 1989.

Deterrence and incapacitation all but dropped out of the 1986–89 cases for social science purposes, as if earlier decisions had established empirical "precedent" that would not be reexamined (Daniels 1979; Ewing 1991:149–50; Monahan & Walker 1986:512–16; Perry & Melton 1983–84; Walker & Monahan 1988). The dominant issues for social science discussion were race discrimination in the application of capital punishment (32.6% of social science citations) (*McCleskey v. Kemp* 1987), jury matters (23.2% of social science citations) (*Lockhart v. McCree* 1986), and matters relating to the moral development and culpability of capital offenders (20.6% of social science citations) (*Penry v. Lynaugh* 1989; *Stanford v. Kentucky* 1989; *Thompson v. Oklahoma* 1988). The justices' description of death-row populations, homicide rates, and related issues accounted for 10 to 15% of the discussion and citation of social science information in these cases, a slightly lower share than in the 1963–85 death penalty decisions (see Table 1) (Acker 1991).

Based upon the outcomes of cases addressing these issues, it would be plausible to assume that *dissenting* opinions, or those finding specific death penalty practices to be unconstitutional, would make principal use and discussion of related social science findings. Surprisingly, however, the justices' use of social science references was only slightly heavier in dissents than in lead (plurality and majority) opinions (Table 2). Plurality and majority opinions accounted for 30, or about one-third (33.7%), of the 89 opinions written in the 28 death penalty

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Table 1. Social Science Citations, Discussion, and Quotations of Social Science Research Evidence by Issue Type, 28 U.S. Supreme Court Death Penalty Cases, 1986–1989

	Soc. Sci. Cites		Lines of Discussion		Lines of Quotation	
	No.	(%)	No.	%	No.	%
Deterrence	8	(3.4)	36	(2.4)	23	(7.0)
Race discrimination/arbitrary application	76	(32.6)	736	(49.6)	130	(39.6)
Incapacitation/future dangerousness/ recidivism	0	(0.0)	0	(0.0)	0	(0.0)
Jury issues	54	(23.2)	238	(16.0)	41	(12.5)
Public opinion	4	(1.7)	16	(1.1)	0	(0.0)
Descriptive statistics: death row, homicides, habeas corpus, executions, etc.	35	(15.0)	151	(10.2)	4	(1.2)
Moral development/culpability issues	48	(20.6)	256	(17.3)	130	(39.6)
Other	8	(3.4)	50	(3.4)	0	(0.0)
Total	233	(99.9)	1,483	(100.0)	328	(99.9)

NOTE: Percentages may not sum to 100.0 due to rounding.

Table 2. Social Science Citations by Opinion Type, U.S. Supreme Court Death Penalty Cases, 1986–1989

	Opinions			Social Science Citations				Total Lines of Discussion		Total Lines of Quotation	
	Total No.	(%)	No. with >1 Soc. Sci. Cite	No.	(%)	Text	Fn.	No.	(%)	No.	(%)
Plurality	7	(7.9)	3	25	(10.7)	3	22	117	(7.9)	46	(14.0)
Majority	23	(25.8)	4	73	(31.3)	19	54	473	(31.9)	125	(38.1)
Concurrence in opinion	10	(11.2)	0	0	(0.0)	—	—	0	(0.0)	0	(0.0)
Concurrence in judgment	13	(14.6)	1	1	(0.4)	1	0	6	(0.4)	0	(0.0)
Dissent	36	(40.4)	10	134	(57.5)	100	34	887	(59.8)	157	(47.9)
Total	89	(99.9)	18	233	(99.9)	123	110	1,483	(100.0)	328	(100.0)

NOTE: Percentages may not sum to 100.0 due to rounding.

cases, yet included 42.1% of the social science citations, 39.8% of the related discussion, and over half (52.1%) of the quoted discussion from social science references. The 36 dissenting opinions, amounting to 40.4% of all opinions written, included 57.5% of the social science citations, 59.8% of the discussion, and 47.9% of the quotation of social science references. Concurring opinions (23, or about one quarter—25.8%—of the total) all but excluded social science materials entirely, containing just a single social science research citation.

The distribution of social science citations in lead and dissenting opinions in the 1986–89 capital punishment decisions also is of interest because it deviates rather significantly from the corresponding citation patterns in the 1963–85 sequence

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of capital cases. In the earlier decided cases, lead opinions included just 14% of social science citations and approximately one quarter of the related discussion. Dissenting (50.2% of social science citations, 40.2% of discussion) and concurring (35.5% of citations, 35.2% of discussion) opinions accounted for relatively greater shares of the justices' consideration of social science materials (Acker 1991:426–27). Nevertheless, the surface similarity in the usage of social science evidence in plurality, majority, and dissenting opinions during the 1986–89 period does not justify the conclusion that social science findings were relatively more important to the outcome of these death penalty cases than to case outcomes in the earlier sequence.

One suggestion that the use of social science in the controlling case opinions from 1986 to 1989 may have been less meaningful than the frequency measures would indicate arises from the distribution of social science citations between the text and footnotes of opinions. It is commonly assumed that footnote citations in a judicial opinion connote the relative insignificance of the cited material. An illustration of this point is the surprise expressed by Chief Justice Warren at the tremendous stir created by his reference to social science authorities in the famous footnote 11 of *Brown v. Board of Education* (1954). Warren, the author of the *Brown* opinion, afterwards observed that "[i]t was only a note, after all" (Schwartz 1983:107). In a similar vein, Justice Blackmun's remarkable use of social science in *Ballew v. Georgia* (1978) has been trumpeted as a "case in which social science has moved out of the footnotes of U.S. Supreme Court decisions into the body of the text" (Grofman & Scarrow 1980:212).

In the instant sample of cases, 76 of the 98 social science citations (77.6%) made in majority and plurality opinions appeared in *footnotes*. In contrast, 100 of the 134 social science citations (74.6%) in dissenting opinions appeared in the *text*. Overall, more than half of the 233 citations to social science research in these decisions (123, or 52.8%) were in the text of opinions (see Table 2). This proportion of textual cites far exceeds the norm. In other types of criminal cases (Acker 1990a, 1990b) and in the 1963–85 death penalty cases (Acker 1991), the justices have relegated approximately 85% of social science citations to the footnotes of opinions.[6]

Substantive analysis of these cases confirms what is sug-

[6] In the death penalty cases decided by the Supreme Court between 1963 and 1985, 41 of 46 (89.1%) citations to social science research evidence appeared in footnotes in plurality and majority opinions, while 127 of 164 (77.4%) social science citations appeared in footnotes in dissenting opinions, and 113 of 116 (97.4%) of the social science citations in concurring opinions were relegated to footnotes (Acker 1991:426). In a random sample of 240 criminal cases decided between the 1958 and 1987 court terms, 92.7% of the social science citations in majority and plurality opin-

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gested by the crude index reflected by text and footnote citation patterns. When social science research evidence was cited and discussed in controlling opinions, the research findings typically were disparaged, discounted, or otherwise rendered insignificant to the case decisions.[7] Dissenting justices, conversely, normally relied upon the research evidence, and tended to shape their conclusions of law in conformance with the implications of the social science findings (cf. Haney 1982). The dialogue between dissenting and lead opinions on social science issues is of considerable interest. The dissents' typical endorsement and promotion of social science findings in cases like *McCree, McCleskey*, and *Stanford* almost certainly occasioned the extensive anticipatory rebuttals in lead opinions that resulted in rejection of the legal significance of the research evidence. Social science findings that are central to dissenting opinions apparently cannot be ignored by justices who dispute their significance, any more than can legal authorities that must be distinguished or considered not controlling in case decisions (cf. Monahan & Walker 1986; Perry & Melton 1983–84).

B. The Individual Justices' Citation of Social Science Research Evidence

Justice Brennan was by far the most prolific user of social science information in the 1986–89 death penalty cases, accounting for nearly twice as many citations and lines of discussion of research evidence as any other member of the Court (cf. Hashimoto 1991). His entire use of social science occurred in four dissenting opinions. Justice Blackmun also cited social science in four different opinions, with Justice Stevens making use of social science authorities in three cases (Table 3). Along with Justice Marshall, who placed extensive reliance on research evidence in his dissent in *Lockhart v. McCree* (1986), these justices generally formed a voting bloc to invalidate capital convictions or sentences. It is no coincidence that they also joined to account for the bulk of social science citations and discussion in these cases, as their opinions frequently relied upon factual evidence that suggested significant irregularities in the administration of capital punishment laws.

Justice Powell, in *McCleskey v. Kemp* (1987), and then-Justice Rehnquist, in *Lockhart v. McCree* (1986), also engaged in rela-

ions were in the footnotes, compared to 74.2% of the social science citations in dissents and 79.2% of the social science citations in concurring opinions (Acker 1990a:8).

[7] Justice Stevens cited social science authorities only in the footnotes of his plurality opinion in *Thompson v. Oklahoma* (1988), in which the Court ruled that the Eighth Amendment forbids the execution of 15-year-old offenders (see Appendix B). *Thompson* thus represents an exception to the normal pattern, in which justices voting to invalidate capital punishment practices tended to cite social science references in the text of their opinions.

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Table 3. U.S. Supreme Court Justices' Citation of Social Science Research Evidence, 28 Death Penalty Cases, 1986–1989

Justice &	No. of Opinions Authored[a]						No. Soc. Sci. Cites			Total No. Lines	
Years on Court	Plurality	Majority	Conc. Opinion	Conc. Judgment	Dissent	Total	Total	Text	Fn.	Discussion	Quotation
Brennan 1956–90		1	3		8(4)	12(4)	64	54	10	456	98
White 1962–	2	6	3		2	13(0)	0	—	—	—	
Marshall 1967–91	1	1		1	5(1)	8(1)	26	18	8	123	25
Burger 1969–86			2	1		3(0)	0	—	—	—	
Blackmun 1970–	1(1)	2(1)		2	6(2)	11(4)	33	20	13	252	38
Powell 1972–87		3(1)		3	2	8(1)	25	4	21	273	73
Rehnquist 1972–	1	4(1)			2	7(1)	26	0	26	112	16
Stevens 1975–	1(1)	2			5(2)	8(3)	29	1	28	131	46
O'Connor 1981–		3(1)	2	5(1)	1	11(2)	20	16	4	86	32
Scalia 1986–	1(1)	1			5(1)	7(2)	10	10	0	50	—
Kennedy 1988–				1		1(0)	0	—	—	—	—
Total	7(3)	23(4)	10(0)	13(1)	36(10)	89(18)	233	123	110	1,483	328

[a] No. with ⩾1 social science citations in parentheses.

tively extensive citation and discussion of social science authorities. However, they did so for very different purposes than did the dissenting justices. Rather than crediting or relying on the social science evidence presented, both Powell[8] and Rehnquist[9]

[8] Justice Powell's majority opinion in *McCleskey v. Kemp* (1987) perhaps signified more than any case in recent memory the Court's unwillingness to give legal recognition to empirical research results. Warren McCleskey, a black man, had been convicted in Georgia of murdering a white police officer and was sentenced to death. McCleskey presented the results of a detailed study of capital sentencing decisions in Georgia completed by Professor David Baldus and his colleagues (Baldus et al. 1990). This study concluded that within a "mid-range" of aggravated murders, offenders (and especially black offenders) who had murdered white victims were significantly more likely to receive the death penalty than similarly situated offenders convicted of murdering blacks. The Baldus study, hailed as "far and away the most complete and thorough analysis of sentencing" that has ever been done (testimony of Professor Richard Berk, quoted in ibid., p. 452), formed the empirical foundation for McCleskey's Eighth Amendment and equal protection challenges to his sentence of death. Justice Powell, writing for the *McCleskey* majority, was willing to "assume the [Baldus] study is valid statistically," with the caveat that this concession "does not include the assumption that the study shows that racial considerations actually enter into sentencing decisions in Georgia" (*McCleskey v. Kemp* 1987:291 n.7). Notwithstanding this initial endorsement of the Baldus study, Justice Powell perceptibly backpedaled as his opinion unfolded. In due course he observed: "At most, the Baldus study indicates a discrepancy that appears to correlate with race" (p. 312) and ultimately arrived at the normative judgment that "the Baldus study does not demonstrate a constitutionally significant risk of race bias affecting the Georgia capital-sentencing process" (p. 313). Moreover, the five-justice majority in *McCleskey* ruled that aggregate level data of the sort analyzed in the

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went to lengths to question the research findings, sometimes dismissing such evidence as legally irrelevant in cases in which dissenting opinions placed substantial reliance on the same data. Justice O'Connor, an important swing vote in many decisions, was correspondingly moderate in her reliance on social science authorities. Justice White authored the most opinions and the most majority opinions in these cases but never once cited social science information (Table 3).

Justices Brennan, Blackmun,[10] and Marshall were among the leading users of social science materials in the death penalty cases decided by the Court between 1963 and 1985. Justice

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Baldus study were inadequate to support an inference that racial considerations influenced capital sentences in individual case decisions. The Court's sweeping rejection of McCleskey's claims effectively forecloses any future federal constitutional challenges to the administration of capital punishment based on broad-scale empirical studies that reflect arbitrariness or invidious discrimination in the application of death penalty statutes (Acker 1987; Burt 1987; Ellsworth 1988:188).

[9] In *Lockhart v. McCree* (1986), Justice Rehnquist's majority opinion revisited the issue of whether the death qualification of jurors for the guilt phase of capital trials denied the accused the right to an impartial jury. This question had been left open 18 years earlier because corresponding research evidence then available was considered "too tentative and fragmentary" (*Witherspoon v. Illinois* 1968:517) to undergird a constitutional ruling. Researchers responded to *Witherspoon's* implicit "call for data" (Rosenblum 1978:59–62) by producing a wealth of evidence suggesting that the disqualification of prospective jurors who strongly oppose capital punishment produces trial juries that are more conviction-prone than juries that have not been death-qualified, systematically distorts the representativeness of juries, and even undermines the presumption of innocence and communicates judicial disapproval of jurors who are unwilling to impose a sentence of death (Cowan et al. 1984; Finch & Ferraro 1986; Fitzgerald & Ellsworth 1984; *Grigsby v. Mabry* 1983; Haney 1984a, 1984b; Thompson et al. 1984). Justice Rehnquist's opinion in *McCree* completely discounted this ample body of research evidence. After leveling numerous criticisms at the studies' methodologies, the opinion begrudgingly assumed that "the studies are both methodologically valid and adequate to establish that 'death qualification' in fact produces juries somewhat more 'conviction-prone' than 'non-death qualified' juries" (*Lockhart v. McCree* 1986:173). Such maneuvering allowed the Court, over Justice Marshall's strenuous dissent, to dismiss the research findings entirely. The majority opinion concluded that empirical assumptions were completely inapposite to the legal principles at issue, thus rendering those principles absolutely immune to social science assault. A more complete judicial repudiation of social science research evidence could hardly have been accomplished (Bersoff 1987; Ellsworth 1988:189–204).

[10] Justice Blackmun typically voted to uphold death penalty laws early in his tenure on the Court. He dissented in *Furman v. Georgia* (1972), concurred in the judgment in the 1976 cases that upheld guided-discretion capital sentencing legislation (e.g., *Gregg v. Georgia* 1976), and he dissented from the Court's decision to invalidate mandatory death penalty statutes in the 1976 cases (*Roberts v. Louisiana* 1976; *Woodson v. North Carolina* 1976). Later in his career he became less willing to uphold capital sentences and convictions (see, e.g. *Sumner v. Shuman* (1987), in which he authored the majority opinion invalidating a mandatory death sentence imposed on a life-term inmate convicted of murder during the service of his sentence). Most recently, he has expressed growing "skepticism that, with each new decision from this Court constricting the ability of the federal courts to remedy constitutional errors, the death penalty really can be imposed fairly and in accordance with the requirements of the Eighth Amendment" (*Sawyer v. Whitley* 1992:2525, Blackmun, J., concurring in the judgment). Justice Blackmun cited social science research evidence in only one death penalty case decided between 1963 and 1985 but engaged in a comprehensive review of empirical evidence concerning psychiatrists' ability to predict future dangerousness in his dissenting opinion in *Barefoot v. Estelle* (1983) (Acker 1991:430–31, 433–35).

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Stewart, a moderate or centrist justice, also made relatively frequent use of social science references in these earlier cases, as did Justice White, who had voted to invalidate death penalty laws in *Furman* and other important early cases (e.g., *Coker v. Georgia* 1977, *Enmund v. Florida* 1982), yet approved of guided discretion capital punishment legislation in the 1976 decisions. Justices Powell, Stevens, and O'Connor, along with the most conservative members of the Court, Chief Justice Burger and Justice Rehnquist, infrequently cited and discussed social science findings in their earlier death penalty opinions (Acker 1991:433–35). If there is a general pattern to these findings, it is that "liberal" or due process-oriented justices (Packer 1968:149–73), the ones less inclined to uphold capital convictions and sentences, have a greater willingness to make use of empirical research evidence than do their more "conservative" counterparts.

The evidence remains mixed about whether a general relationship exists between judicial ideology and the use of social science in case opinions (Acker 1991; Acker 1990a; Levine & Howe 1985:181; Rosenblum 1978:24–28). Justice Scalia, who is fairly characterized as an ideological conservative[11] in his death penalty opinions, has left no doubt about where he stands concerning the Court's proper role in receiving and evaluating social science research evidence in capital cases. His plurality opinion in *Stanford v. Kentucky* (1989:378), in which the Court ruled that the Constitution does not prohibit the execution of 16- and 17-year-old murderers, unequivocally repudiated the Court's competence to consider empirical evidence relevant to the capital punishment of youthful offenders.

> The battle must be fought . . . on the field of the Eighth Amendment; and in that struggle socioscientific, ethicoscientific, or even purely scientific evidence is not an available weapon. . . . The audience for these arguments, in other words, is not this Court but the citizenry of the United States. . . . We have no power under the Eighth Amendment to substitute our belief in the scientific evidence for the society's apparent skepticism.

If this view prevails, future death penalty cases will involve stakes much higher than whether the justices will attempt to

[11] Traditional wisdom has it that "conservative" judges more typically focus on formal legal reasoning and the law "on the books" in order to maintain or adhere to the legal status quo, while "liberal" judges are more apt to rely on extralegal foundations as they develop and promote change in legal doctrine (Hafemeister & Melton 1987; Haney 1980; Rosen 1972:215–17). However, it is particularly hazardous to typecast conservative and liberal justices as being more or less inclined to preserve the status quo in capital punishment cases. Indeed, in the Court's recent death penalty jurisprudence the more conservative justices (e.g., Chief Justice Rehnquist, Justice Scalia) have unabashedly questioned fundamental principles of capital punishment doctrine and discounted precedent and *stare decisis* in their rulings (Acker 1990c; *Payne v. Tennessee* 1991).

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Table 4. Social Science Citations by Number of Justices Joining Lead Opinion, 28 U.S. Supreme Court Death Penalty Cases, 1986–1989

No. Justices Joining Lead Opinion	Cases			Total No. Lines	
	No.[a]	No. with ≥1 Soc. Sci. Cite	No. Soc. Sci. Cites	Discussion	Quotation
4	7	4	67	319	73
5	16	5	163	1,156	251
6	4	1	3	8	4
7	0	—	—	—	—
8	1	0	0	—	—
9	2	0	0	—	—
Total	30[a]	10	233	1,483	328

[a] Includes two cases with different numbers of justices joining opinions for different case issues: *Turner v. Murray* (1986) and *Ford v. Wainwright* (1986).

evaluate and make use of social science findings to support their judgments. In Justice Brennan's words, "Justice Scalia's approach would largely return the task of defining the contours of Eighth Amendment protections to political majorities . . . [;] the very majorities the Framers distrusted . . . to define the precise scope of protection afforded by the Bill of Rights" (ibid., pp. 391–92).

C. Social Science Citations and Case Voting Patterns

In most of the death penalty cases decided between 1986 and 1989 the Court was highly fragmented. Twenty-three of 30 principal opinions (2 of the 28 cases presented dual issues that resulted in different voting patterns), or roughly three-fourths of the lead opinions in these cases, were joined by either four (7 opinions) or five (16 opinions) justices. The citation and discussion of social science authorities, almost without exception, occurred in these cases involving plurality and in 5 justice-majority decisions, to the exclusion of cases decided by less sharply divided courts (Table 4). In death penalty cases between 1963 and 1985 (Acker 1991:428–29) and in other types of criminal decisions (Acker 1990a:7–9), the justices also made far greater use of social science references in cases decided by plurality and bare majority opinions than in cases reflecting greater consensus.

It is not clear why this relationship exists between closely decided cases and the citation and discussion of social science research evidence. The explanation may have something to do with the types of issues that produce fragmented courts: issues that may be new, or that have particularly widespread implications (perhaps because of related social fact assumptions) (Acker 1990a:5–7), or that inspire the justices to muster an array of supporting authorities including social science refer-

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Table 5. Social Science Research Evidence Cited in 28 U.S. Supreme Court Death Penalty Cases, 1986–1989: Source Type, Whether Sources Also Cited in Case Briefs, Lines of Discussion and Quotation

	Cites		Sources		Cited in	Discussion		Quotation	
Source Type	No.	(%)	No.	(%)	Case Briefs	No.	(%)	No.	(%)
ILP	34	(14.6)	24	(22.6)	14	141	(9.5)	42	(12.8)
Non-*ILP*	37	(15.9)	19	(17.9)	9	150	(10.1)	22	(6.7)
Book	40	(17.2)	20	(18.9)	16	243	(16.4)	102	(31.1)
Statistics	7	(3.0)	6	(5.7)	5	30	(2.0)	0	(0.0)
Govt. doc.	6	(2.6)	6	(5.7)	2	20	(1.3)	0	(0.0)
Other	109[a]	(46.8)	31	(29.2)	26	899[a]	(60.6)	162[a]	(49.4)
Total	233	(100.1)	106	(100.0)	72	1,483	(99.9)	328	(100.0)

NOTE: Percentages may not sum to 100.0 due to rounding.
[a] Includes total of 57 cites, 689 lines of discussion, and 95 lines quoted from records and lower court opinions in *Lockhart v. McCree* (1986) and *McCleskey v. Kemp* (1987).

ences, simply because they are controversial and cannot be supported by logic or legal precedent alone. Alternatively, the inclusion of social science authorities in case opinions actually may help *cause* splintered voting patterns. At least in some contexts, one or more justices may find reliance on social science authorities in a case opinion to be objectionable and for that reason decide to write separately or to refrain from joining an otherwise solid voting bloc (Acker 1991:428; Acker 1990a:9; cf. *Ballew v. Georgia* 1978:246, Powell, J., concurring in the judgment). Now that Justices Brennan and Marshall have retired from the Court (both of whom consistently voted to invalidate capital convictions and sentences and who also cited social science findings regularly), it is likely that death penalty cases will be decided less frequently by 5–4 votes and by plurality opinions and more consistently by solid majority votes.

D. Social Science References: Types Cited and the Correspondence between Opinion Cites and Brief Cites

When the justices made use of social science research evidence in their death penalty opinions, they relied on a wide array of reference materials. Law review articles (*ILP*s), journals not referenced in the *Index to Legal Periodicals* (Non-*ILPs*), and books were cited as social science authorities in these cases with roughly the same regularity, although the contents of books received the most extensive discussion and quotation. Statistical compilations and governmental documents infrequently were used as social science references. "Other" types of references—especially the records of lower court proceedings developed in *Lockhart v. McCree* (1986) and *McCleskey v. Kemp* (1987)—accounted for nearly half of the social science ci-

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tations, provoked most of the discussion, and amounted to half of the quoted social science materials in these cases (Table 5).

The records in both *McCree* and *McCleskey* were developed through evidentiary hearings conducted in federal habeas corpus proceedings. As such, the social science evidence in those cases was fully subjected to "the traditional testing mechanisms of the adversary process" (*Ballew v. Georgia* 1978:246, Powell, J., concurring in the judgment). Absent such opportunity to evaluate the reliability and validity of social science findings, the justices understandably may be reluctant to embrace research evidence in their decisions (ibid.; Miller & Barron 1975; Sperlich 1980b; but see Monahan & Walker 1986). Ironically, the Court recently has severely limited the availability of federal habeas corpus review of state criminal judgments (Hoffmann 1990; Pachtel 1991; Weisberg 1990; *Butler v. McKellar* 1990; *Coleman v. Thompson* 1991; *Keeney v. Tamayo-Reyes* 1992; *McCleskey v. Zant* 1991; *Teague v. Lane* 1989). One of the unanticipated consequences of this cutback on federal habeas may be to impede capital defendants from developing a full evidentiary record in cases such as *McCree* and *McCleskey*, where social science is central to the legal claims.

Table 5 makes clear that the justices are more than willing to rely on non-*ILPs* as sources of social science authority. Although it still may benefit social scientists to publish the results of their research in legal periodicals and books to attract the attention of lawyers and judges (Melton 1987a, 1987b; Tremper 1987), this practice no longer appears to be as important as it once may have been. Computerized data bases and other bibliographic indexing systems have made primary social science references widely accessible to law-trained library users. The justices for many years have relied on extralegal references as social science authorities (Acker 1990a, 1990b), often locating these authorities without the assistance of the case briefs (ibid.; Acker 1992). Roughly two-thirds (72 of 106, or 67.9%) of the social science references cited in opinions in the 1986–89 death penalty cases also had been cited in the corresponding case briefs, compared to a 56.5% correspondence rate between brief cites and opinion cites in the 1963–85 capital punishment cases (Acker 1991:436–37). The remainder of the cited social science authorities were located through the independent research efforts of the justices and their law clerks (Table 5).

III. Conclusion

The prevailing opinions in the Court's recent major capital punishment decisions have increasingly displayed an unwillingness to incorporate the results of relevant social science find-

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ings. This trend has profound implications for developing death penalty doctrine. Research studies almost invariably have produced evidence that is inconsistent with the premises that the death penalty is administered evenhandedly and that capital punishment is effective or necessary to serve deterrent and incapacitation objectives (cf. Aguirre & Baker 1990; Bowers 1988; Marquart & Sorensen 1989). Justices writing lead opinions frequently have professed uncertainty and indifference about empirical evidence concerning the practical operation of death penalty systems, have adopted principles of adjudication that make social fact propositions subsidiary or irrelevant to governing decisional premises, and have proclaimed incompetence to scrutinize basic facts about capital punishment administration. These techniques have left the Court free to promote other objectives that almost certainly would be compromised if social science research on the death penalty were fully credited.

Unfettered by empirical evidence relating to capital punishment administration, a working majority of the justices has emphasized alternative priorities to guide death penalty decisions. These other objectives include promoting federalism (*Penry v. Lynaugh* 1989; *Tison v. Arizona* 1987), displaying deference to the judgments of legislatures and other elected officials (*McCleskey v. Kemp* 1987; *Stanford v. Kentucky* 1989), preserving the finality of criminal convictions (*Dugger v. Adams* 1989), accommodating resource-allocation, cost and other administrative considerations (*Lockhart v. McCree* 1986; *Murray v. Giarratano* 1989), and ensuring that procedures governing death penalty decisions are not so demanding as to jeopardize the states' ability to maintain viable capital punishment systems (*McCleskey v. Kemp* 1987). The values and techniques of adjudication reflected in prevailing opinions in the death penalty cases are perfectly consistent with the general ideology and principles promoted by the Rehnquist Court in other types of cases (Benner 1989; Chemerinsky 1989; Hoffmann 1990; Patchel 1991; Weisberg 1990).

From a result-oriented perspective, social science evidence had little influence on the Court's death penalty decisions. Lead opinions brushed aside convincing empirical evidence that death-qualified juries are more conviction-prone and less representative of communities than non–death-qualified juries, ignored exhaustively documented findings that race influenced death penalty decisions in Georgia, and refused to consider social-scientific evidence relevant to capital punishment for 16- and 17-year-olds and mentally retarded offenders. If research findings did influence Court opinions, they did so in other ways. Most important, research conclusions denied the prevailing justices the convenience of relying on uncertainty about the facts of capital punishment as a decisional gambit and forced

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the explicit identification of other controlling decisional principles (Faigman 1991; Grisso & Saks 1991). While a greater harvest could be expected from social scientists' research efforts, helping to flesh out the true premises of case decisions is an important function, one that directly concerns the legitimacy of the decisional process (Acker 1991; Faigman 1991; Risinger, Denbeaux & Saks 1989; Woolhandler 1988).

Social science evidence was relied upon extensively by "liberal" justices in these cases, who would have ruled death penalty practices unconstitutional. As such, empirical research primarily was cited and discussed in dissenting opinions. Dissenting justices typically cited social science authorities in the text of their opinions, while social science was more often relegated to the footnotes in majority opinions. The results of empirical research on capital punishment thus were addressed both by majority and dissenting justices, but with predictable regularity these research results were accorded vastly different stature in the respective opinions. As in other types of cases, the justices were not tied to traditional legal authorities such as books and law reviews as their social science authorities, nor were they reluctant to make use of social science references that had not been called to their attention in case briefs.

Social scientists, among others, may well feel discouraged about the Supreme Court's treatment of empirical research evidence in recent death penalty decisions (Dorin 1981; Ellsworth 1988; Thompson 1989). For the foreseeable future other forums, such as legislatures or state courts, may prove to be more receptive than is the Supreme Court to social science findings about the death penalty (Acker & Walsh 1989; Harvard Civil Rights–Civil Liberties Law Review 1989; Ewing 1991:159–61; Tabak 1990–91). Nevertheless, by producing systematic empirical research evidence that bears on important issues of capital punishment administration, and thus compelling the justices to explain their decisions against this revealing factual background, social scientists at the very least are making a real contribution to the integrity of the Supreme Court's decisional process. Only time will tell if the Court's decisions will withstand scrutiny in this and future generations (cf. Zimring & Hawkins 1986:148–66).

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Appendix A. Universe of Cases (by Year): 28 Death Penalty Cases Decided by U.S. Supreme Court, 1986–1989

1986
Cabana v. Bullock, 474 U.S. 376 (1986)
Skipper v. South Carolina, 476 U.S. 1 (1986)
Turner v. Murray, 476 U.S. 28 (1986)
Poland v. Arizona, 476 U.S. 147 (1986)
Lockhart v. McCree, 476 U.S. 162 (1986)
Darden v. Wainwright, 477 U.S. 168 (1986)
Ford v. Wainwright, 477 U.S. 399 (1986)

1987
California v. Brown, 479 U.S. 538 (1987)
Tison v. Arizona, 481 U.S. 137 (1987)
McCleskey v. Kemp, 481 U.S. 279 (1987)
Hitchcock v. Dugger, 481 U.S. 393 (1987)
Gray v. Mississippi, 481 U.S. 648 (1987)
Booth v. Maryland, 482 U.S. 496 (1987)
Sumner v. Shuman, 483 U.S. 66 (1987)
Burger v. Kemp. 483 U.S. 776 (1987)

1988
Lowenfield v. Phelps, 484 U.S. 231 (1988)
Satterwhite v. Texas, 486 U.S. 249 (1988)
Maynard v. Cartwright, 486 U.S. 356 (1988)
Mills v. Maryland, 486 U.S. 367 (1988)
Johnson v. Mississippi, 486 U.S. 578 (1988)
Ross v. Oklahoma, 487 U.S. 81 (1988)
Franklin v. Lynaugh, 487 U.S. 164 (1988)
Thompson v. Oklahoma, 487 U.S. 815 (1988)

1989
Dugger v. Adams, 489 U.S. 401 (1989)
South Carolina v. Gathers, 490 U.S. 805 (1989)
Murray v. Giarratano, 492 U.S. 1 (1989)
Penry v. Lynaugh, 492 U.S. 302 (1989)
Stanford v. Kentucky, 492 U.S. 361 (1989)

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Appendix B. Social Science Research Evidence Citations in U.S. Supreme Court Death Penalty Cases, 1986–1989

Case & Opinion Type	Justice Authoring	Soc. Sci. Cites			Total No. Lines		No. Soc. Sci. Sources Also Cited in	
		Total	Text	Fn.	Disc.	Quoted	Case	Brief

Case & Opinion Type	Justice Authoring	Soc. Sci. Cites			Total No. Lines		No. Soc. Sci. Sources Also Cited in	
		Total	Text	Fn.	Disc.	Quoted	Case	Brief

Case & Opinion Type	Justice Authoring	Total	Text	Fn.	Disc.	Quoted	Case	Brief
Lockhart v. McCree (1986)							25	22
Majority	Rehnquist	26	0	26	112	16		
Dissent	Marshall	26	18	8	123	25		
Tison v. Arizona (1987)							1	0
Dissent	Brennan	1	0	1	5	0		
McCleskey v. Kemp (1987)							27	10
Majority	Powell	25	4	21	273	73		
Dissent	Brennan	24	19	5	238	23		
Dissent	Blackmun	27	20	7	232	30		
Dissent	Stevens	1	1	0	7	0		
Gray v. Mississippi (1987)							2	0
Plurality	Blackmun	2	0	2	3	0		
Sumner v. Shuman (1987)							2	2
Majority	Blackmun	3	0	3	8	4		
Burger v. Kemp (1987)							1	0
Dissent	Blackmun	1	0	1	9	4		
Thompson v. Oklahoma (1988)							19	15
Plurality	Stevens	20	0	20	99	46		
Conc. judgment	O'Connor	1	1	0	6	0		
Dissent	Scalia	7	7	0	35	0		
Murray v. Giarratano (1989)							7	7
Dissent	Stevens	8	0	8	25	0		
Penry v. Lynaugh (1989)							7	7
Majority	O'Connor	19	15	4	80	32		
Dissent	Brennan	13	12	1	77	48		
Stanford v. Kentucky (1989)							15	9
Plurality	Scalia	3	3	0	15	0		
Dissent	Brennan	26	23	3	136	27		

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