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FORECASTING LIFE AND DEATH: JUROR RACE, RELIGION, AND ATTITUDE TOWARD THE DEATH PENALTY

*THEODORE EISENBERG, STEPHEN P. GARVEY, and MARTIN T. WELLS**

ABSTRACT

Determining whether race, sex, or other juror characteristics influence how capital case jurors vote is difficult. Jurors tend to vote for death in more egregious cases and for life in less egregious cases no matter what their own characteristics. And a juror's personal characteristics may get lost in the process of deliberation because the final verdict reflects the jury's will, not the individual juror's. Controlling for the facts likely to influence a juror's verdict helps isolate the influence of a juror's personal characteristics. Examining each juror's first sentencing vote reveals her own judgment before the majority works its will. Race, religion, and how strongly the juror believes death is the appropriate punishment for murder influence a capital juror's first vote, which usually determines the final vote. Because black jurors are rarely a majority of the jury's members, majority rule usually means white rule.

I. INTRODUCTION

PUBLIC opinion polls show that some groups support the death penalty more than others. For example, whites support the death penalty more than blacks,[1] and men more than women.[2] But do these characteristics really matter? Black citizens support the death penalty less than white citizens, but

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[1] See, for example, Phoebe C. Ellsworth & Samuel R. Gross, Hardening of the Attitudes: Americans' Views on the Death Penalty, 50 J. Soc. Issues 19, 21 (1994) ("Whites have favored [the death penalty] more than Blacks."); James Alan Fox *et al.*, Death Penalty Opinion in the Post-*Furman* Years, 18 N.Y.U. Rev. L. & Soc. Change 499, 503 (1990–91) (same); Samuel R. Gross, Update: American Public Opinion on the Death Penalty—It's Getting Personal, 83 Cornell L. Rev. 1448, 1451 (1998) (same).

[2] See, for example, Ellsworth & Gross, *supra* note 1, at 21 ("[M]en have favored the death penalty more than women."); Fox *et al.*, *supra* note 1, at 503 (same); Gross, *supra* note 1, at 1451 (same).

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are black jurors any more likely to vote for life than white ones? Are men any more likely to vote for death than women? Is an otherwise firm supporter of the death penalty really more likely to vote for death when he has to look the defendant in the eye?

Using data gathered from the Capital Jury Project,[3] we try to answer these questions. On the basis of interviews with 187 jurors who served on 53 capital cases tried in South Carolina between 1986 and 1997, we isolate and identify the influence a juror's personal characteristics have on how he or she votes. Our effort is the first of its kind, and it faces two immediate problems.

First, verdicts depend on facts.[4] The most egregious cases will tend to produce death verdicts no matter who sits on the jury; the least egregious will tend to produce life verdicts. The force of the facts therefore makes it difficult to isolate the influence of a juror's personal characteristics.[5] Second, the majority verdict after the first round of voting tends to be the final one.[6] The heroic holdout who converts the rest is the exception, not the rule. The fact that the final verdict reflects a collective judgment, not an individual one, also makes it difficult to isolate any influence attributable solely to a juror's personal characteristics.

Fortunately, we can substantially mitigate the impact of both problems.

[3] For a description of the Capital Jury Project, see notes 8–19 *infra* and accompanying text.

[4] See, for example, John Guinther & Bettyruth Walker, The Jury in America 102 (1988) ("Juries are evidence-driven, both during the course of the trial and during deliberations."); Sally Lloyd-Bostock, Law in Practice: Applications of Psychology to Legal Decision Making and Legal Skills 48 (1989) ("Before discussing the effects of predispositions of individual jurors, it is important to stress that the most important aspect of any case with very few exceptions tends to be the strength of the evidence."); Michael J. Saks & Reid Hastie, Social Psychology in Court 68 (1978) ("Indeed, the power of evidence is so well recognized by jury researchers that when studying processes other than evidence, they must calibrate the evidence to be moderate so that it leaves some variance to be influenced by the variables under study."); Valerie P. Hans, The Jury's Response to Business and Corporate Wrongdoing, Law & Contemp. Probs., Autumn 1989, at 177, 194 ("Typically the evidence, rather than extra legal or personal factors, drives juror decisionmaking."); Christy A. Visher, Juror Decision Making: The Importance of Evidence, 11 Law & Hum. Behav. 1, 13–14 (1987) (emphasizing the importance of the evidence in comparison to extralegal factors).

[5] David Baldus, George Woodworth, & Charles A. Pulaski, Equal Justice and the Death Penalty: A Legal and Empirical Analysis 145 (1990) (explaining the "liberation" effect according to which "juries [are] most influenced by legally irrelevant or impermissible considerations when the evidence of guilt was ambiguous and the case was close").

[6] See, for example, Reid Hastie, Steven Penrod, & Nancy Pennington, Inside the Jury 27 (1983) ("A result obtained in virtually all research on small decision-making groups is that larger factions, within a group, exert more influence on the group's decision than do smaller factions." (citing Harry Kalven & Hans Zeisel, The American Jury 488 (1966) ("[T]he jury in roughly nine out of ten cases decides in the direction of the initial majority."))); Robert K. Bothwell & Walter F. Abbott, The Primary Processes: Majority Effect, Factionalism, and Negotiating, in A Handbook of Jury Research 21-1, 21-8 (Walter F. Abbott & John Batt eds. 1999) ("The distribution of predeliberation verdict preferences typically determines the outcome of deliberations."). But compare Phoebe C. Ellsworth, Some Steps between Attitudes and Verdicts, in Inside the Juror: The Psychology of Juror Decision Making 42, 58 (Reid Hastie ed. 1993) (describing Kalven and Zeisel's generalization as exaggerated and emphasizing that juror characteristics can play some role in predicting juror behavior).

We control for the first by using proxies for the strength of the case, thus enabling us to isolate the effect of a juror's personal characteristics on the verdict. Moreover, we interviewed more than one juror in each case; any within-case difference between the votes of jurors who heard the same evidence is due to differences between the jurors, not the facts. As for the second, we look not at the jury's final vote but at each individual juror's first vote,[7] thus enabling us to separate effects attributable to the juror's personal characteristics from those attributable to the jury's subsequent deliberations and drive toward unanimity.

We find the following:

Race Matters. Black jurors are substantially more likely than white jurors to vote for life on the first ballot, but not on the final one. All jurors tend in the end to vote with the initial majority, which for the cases in our sample means a white majority. The influence of race therefore disappears between the first vote and the final one.

Religion Matters. Jurors who identify themselves as Southern Baptists (almost all of whom are white) are apt to cast their first vote for death.

Support for the Death Penalty Matters. Capital juries often contain members whose support for the death penalty undermines their impartiality and renders them legally ineligible to serve. Once seated, these jurors push the final verdict heavily toward death.

Section II describes the data used in the study. Section III identifies variables about the juror and the facts of the case that are strongly associated with a juror's first vote and describes the basic process of capital sentencing in South Carolina. Section IV then presents several statistical models that reveal how much influence each of these variables, including the juror's personal characteristics, has on a juror's first vote, holding all the other variables constant.

II. The Capital Jury Project in South Carolina

The data analyzed here were gathered as part of the Capital Jury Project (CJP), a National Science Foundation–funded multistate research effort.[8] Before the CJP, research on capital jury decision making was limited. Researchers were forced to draw conclusions based on general population surveys, anecdotal data from individual cases, and material in the written record.

[7] South Carolina law makes no attempt to structure a jury's deliberations. A juror could therefore have cast her first vote at the start of the jury's discussion or afterward; she could have cast her first vote in an open ballot or a secret one; and so forth.

[8] For an overview of the CJP, see William J. Bowers, The Capital Jury Project: Rationale, Design, and Preview of Early Findings, 70 Ind. L. J. 1043 (1995). The CJP began collecting data nationwide in 1990 with funding from the Law and Social Sciences Program of the National Science Foundation.

Systematically gathered data from jurors who had actually served on a capital jury were simply unavailable. The CJP's efforts have started to fill the void.[9]

Our analysis uses data gathered from jurors in South Carolina, the state with the largest share by far of the CJP's total data; moreover, published research based on nationwide CJP data suggests that South Carolina jurors behave much like jurors in other states.[10] Our interviews cover cases brought from enactment of the South Carolina Omnibus Criminal Justice Improvements Act of 1986 through to the summer of 1997.[11] Jurors who sat in 53 cases were randomly sampled, with a goal of four juror interviews per case.[12] The sample includes 28 cases resulting in a death verdict (out of an approximate universe of 54) and 25 cases resulting in a life verdict (out

[9] Quantitative analyses of CJP data can be found in William J. Bowers, Benjamin D. Steiner, & Marla Sandys, Death Sentencing in Black and White: An Empirical Analysis of the Role of Jurors' Race and Jury Racial Composition, 3 U. Pa. J. Const. L. 171 (2001) (multistate data); William J. Bowers, Marla Sandys, & Benjamin D. Steiner, Foreclosed Impartiality in Capital Sentencing: Jurors' Predispositions, Guilt-Trial Experience, and Premature Decision Making, 83 Cornell L. Rev. 1476 (1998) (multistate data); William J. Bowers & Benjamin D. Steiner, Death by Default: An Empirical Demonstration of False and Forced Choices in Capital Sentencing, 77 Tex. L. Rev. 605 (1999) (multistate data); Theodore Eisenberg, Stephen P. Garvey, & Martin T. Wells, But Was He Sorry? The Role of Remorse in Capital Sentencing, 83 Cornell L. Rev. 1599 (1998) (South Carolina data); Theodore Eisenberg, Stephen P. Garvey, & Martin T. Wells, The Deadly Paradox of Capital Jurors, 74 S. Cal. L. Rev. 371 (2001) (South Carolina data); Theodore Eisenberg, Stephen P. Garvey, & Martin T. Wells, Jury Responsibility in Capital Sentencing: An Empirical Study, 44 Buff. L. Rev. 339 (1996) (South Carolina data); Theodore Eisenberg & Martin T. Wells, Deadly Confusion: Juror Instructions in Capital Cases, 79 Cornell L. Rev. 1 (1993) (South Carolina data); Stephen P. Garvey, Aggravation and Mitigation in Capital Cases: What Do Jurors Think? 98 Colum. L. Rev. 1538 (1998) (South Carolina data); Stephen P. Garvey, The Emotional Economy of Capital Sentencing, 75 N.Y.U. L. Rev. 26 (2000) (South Carolina data); James Luginbuhl & Julie Howe, Discretion in Capital Sentencing Instructions: Guided or Misguided? 70 Ind. L. J. 1161 (1995) (North Carolina data); Marla Sandys, Cross-overs—Capital Jurors Who Change Their Minds about the Punishment: A Litmus Test for Sentencing Guidelines, 70 Ind. L. J. 1183 (1995) (Kentucky data); Scott E. Sundby, The Capital Jury and Absolution: The Intersection of Trial Strategy, Remorse, and the Death Penalty, 83 Cornell L. Rev. 1557 (1998) (California data); Scott E. Sundby, The Jury as Critic: An Empirical Look at How Capital Juries Perceive Expert and Lay Testimony, 83 Va. L. Rev. 1109 (1997) (California data). Qualitative analyses of CJP data can be found in Joseph L. Hoffmann, Where's the Buck?—Juror Misperception of Sentencing Responsibility in Death Penalty Cases, 70 Ind. L. J. 1137 (1995) (Indiana data); Austin Sarat, Violence, Representation, and Responsibility in Capital Trials: The View from the Jury, 70 Ind. L. J. 1103 (1995) (Georgia data).

[10] See, for example, Eisenberg, Garvey, & Wells, Jury Responsibility in Capital Sentencing, *supra* note 9, at 354 (noting a similar pattern of responses between multistate CJP data and South Carolina CJP data); Garvey, Aggravation and Mitigation in Capital Cases, *supra* note 9, at 1575–76 (same).

[11] The Omnibus Criminal Justice Improvements Act of 1986, No. 462, 1986 S.C. Acts 2955. The 1986 Act changed the standards of parole in capital cases and provided a natural starting point for the collection of data. See *id.* at 2983 (changing parole eligibility for defendants convicted of capital murder with an aggravating circumstance, but not sentenced to death, from ineligibility for 20 years to ineligibility for 30 years). A later amendment to the South Carolina death penalty statute provided that capital defendants not sentenced to death would be ineligible for parole for life. See Act of June 7, 1995, No. 83, 1995 S.C. Acts 545, 557. A few defendants in the cases sampled were resentenced as a result of errors in their initial sentencing trial. The data we use are based on the initial trials.

[12] Three to four (and in one case five) jurors were interviewed in 46 of the 53 cases. Fewer than three jurors were interviewed in each of the remaining seven cases.

of an approximate universe of 30).[13] The total number of jurors interviewed was 187.

The 51-page interview instrument was designed and tested by the CJP and administered by trained interviewers.[14] Questions covered all phases of the guilt and sentencing trials. The data include facts about the crime; racial, economic, and other characteristics of the defendant, the victim, and their families; the process of jury deliberation; and the conduct of the case by defense counsel, the prosecutor, and the judge. The interviews also included questions about the demographic characteristics of the jurors as well as their views on the death penalty. The result is a data set containing over 750 variables.

Data from jurors who actually served on a capital case provide information other methodologies simply cannot capture, but the interview methodology also has limitations. For example, jurors may not be especially good at evaluating the factors that influence their own thinking,[15] or they may not be completely truthful.[16] So too a juror's memory may fade between the time she served and the time she was interviewed.[17] Perhaps most important, the

[13] Our primary interest when we began collecting data was in the final sentence of the jury, not the first votes of individual jurors. Consequently, we tried not to include any cases in which jury deliberations ended in deadlock, which under South Carolina law would result in the automatic imposition of a sentence of life imprisonment. See S.C. Code Ann. § 16-3-20(A) (Law. Co-op. 1985 & Supp. 1999) ("If the State seeks the death penalty and a statutory aggravating circumstance is found beyond a reasonable doubt pursuant to subsections (B) and (C), and a recommendation of death is not made, the trial judge must impose a sentence of life imprisonment."). South Carolina judges make considerable effort to avoid hung juries in capital cases, and studies generally suggest that hung juries are relatively rare. See, for example, Hastie, Penrod, & Pennington, *supra* note 6, at 27 ("A survey of trial judges found that 5.6 percent of trials resulted in deadlock juries when unanimous verdicts were required, and rate dropped to 3.1 percent when majority verdicts were allowed."). Our best estimate is that no more than a handful of the juries in our sample failed to reach unanimity on either life or death.

The sampling in later years is less comprehensive than in early years. Life sentences were oversampled relative to death sentences. The statistical models we construct account for these different sampling rates. We also account for the fact that not all juror responses are independent of one another; that is, with few exceptions more than one interviewed juror sat on each case. See, for example, C. J. Skinner, Introduction to Part A, in Analysis of Complex Surveys ch. 2 (C. J. Skinner, D. Holt, & T. M. F. Smith eds. 1989).

[14] Justice Res. Ctr., Northeastern Univ., Juror Interview Instrument, National Study of Juror Decision Making in Capital Cases (1997) [hereinafter Survey] (unpublished document, on file with the authors).

[15] See, for example, Valerie P. Hans, How Juries Decide Death: The Contributions of the Capital Jury Project, 70 Ind. L. J. 1233, 1235 (1995) ("Researchers have discovered that individuals are not particularly good at assessing the impact of factors that affect their thinking.").

[16] See, for example, *id.* at 1236 ("[Jurors] will experience pressures to present themselves in a socially desirably way to the interviewer.").

[17] See, for example, *id.* at 1235–36 ("Jurors' memories will deteriorate . . . over time."). In our data, the longest delay between trial and interview was approximately 7 years; the shortest was approximately 2 months; the median was 19.7 months. Seventy-five percent of the jurors said they remembered "very well" "hearing evidence about the defendant's punishment," with 97 percent saying they remembered it at least "fairly well." Eighty percent of the jurors said they remembered "very well" the "jury deliberations about the defendant's punishment," with 99 percent saying they remembered it at least "fairly well."

interviews were conducted after jurors had completed their service and rendered their verdict. Consequently, the sentence a juror voted to impose may have influenced how she later responded to our interview questions.[18] In particular, a juror who has sentenced someone to death may well be expected to say that the crime was especially serious and the death penalty was the only real choice. Nonetheless, as more fully explained below, we believe that our core findings withstand the risk of such hindsight bias.[19]

III. The Applicable Law and the Variables Used to Model the First Vote

Jury verdicts usually depend more on the facts of the case and less on the personal characteristics of the jurors. Studies consistently find that the outcome of a trial turns heavily on the strength of the evidence; the personal characteristics of the jurors tend to make comparatively little difference.[20] Relying on nothing more than the personal characteristics of a jury's members to try to forecast its final verdict is therefore likely to prove disappointing.

Still, capital sentencing is unique. Unlike most decisions a jury is called upon to make, capital sentencing is highly discretionary. Once the jury finds the defendant guilty of capital murder,[21] the penalty phase begins, during which jurors typically receive instructions on the relevant statutory aggravating and mitigating circumstances.[22] But these circumstances are only guides; jurors are free to assign them whatever weight they see fit. They are also free to go beyond them. The Constitution guarantees all capital defendants the right to present relevant nonstatutory mitigating evidence;[23] it likewise permits the state to introduce nonstatutory aggravating evidence, provided it has proved the existence of at least one statutory aggravating

[18] See, for example, *id.* ("[Jurors] are likely to be influenced by the hindsight bias.").

[19] See Section IV*C infra*.

[20] See sources cited in note 4 *supra*.

[21] See, for example, James R. Acker & C. S. Lanier, The Dimensions of Capital Murder, 29 Crim. L. Bull. 379, 379–97 (1993) (providing detailed examination of state law defining capital murder).

[22] See, for example, James R. Acker & C. S. Lanier, "Parsing This Lexicon of Death": Aggravating Factors in Capital Sentencing Statutes, 30 Crim. L. Bull. 107, 107–52, 151 (1994) (canvassing "the statutory aggravating factors that are used in contemporary death penalty laws"); James R. Acker & Charles S. Lanier, In Fairness and Mercy: Statutory Mitigating Factors in Capital Punishment Laws, 30 Crim. L. Bull. 299, 299–345, 344 (1994) (describing "the specific form taken by statutory mitigating factors in different capital punishment jurisdictions").

[23] See Lockett v. Ohio, 438 U.S. 586, 604 (1978) (plurality opinion); accord McKoy v. North Carolina, 494 U.S. 433, 441 (1990); Mills v. Maryland, 486 U.S. 367, 374–75 (1988); Hitchock v. Dugger, 481 U.S. 393, 398–99 (1987). See generally Louis D. Bilionis, Moral Appropriateness, Capital Punishment, and the *Lockett* Doctrine, 82 J. Crim. L. & Criminology, 283, 300–13 (1991) (describing the basic features of the *Lockett* doctrine); Scott E. Sundby, The *Lockett* Paradox: Reconciling Guided Discretion and Unguided Mitigation in Capital Sentencing, 38 UCLA L. Rev. 1147, 1158–61 (1991) (same).

circumstance.[24] State law can also structure a jury's discretion in other ways, such as instructing its members to weigh or balance aggravating and mitigating circumstances against one another,[25] but it can never require a jury to impose death.[26]

South Carolina law follows this general design. Although some of the details changed during the time period in which we conducted our interviews, the basic process of capital sentencing in South Carolina remained the same.[27] South Carolina jurors begin their deliberations with a list of the applicable statutory aggravating and mitigating circumstances.[28] Once the jury finds the existence beyond a reasonable doubt of at least one statutory aggravating circumstance,[29] it must then arrive at a sentence—life imprisonment or death—based on all the evidence—aggravating and mitigating alike[30]—presented during the penalty phase. Unlike jurors in many states, South Carolina jurors are not instructed to weigh aggravating and mitigating circumstances against each other. They are instead told only that they may impose a life sentence for "any reason or no reason at all."[31]

Because capital sentencing is so discretionary, considerable room exists for a juror's personal characteristics to influence her judgment, at least compared to most jury decisions. Indeed, prior research shows that the more a

[24] See Zant v. Stephens, 462 U.S. 862, 878 (1983); accord Barclay v. Florida, 463 U.S. 939, 954 (1983); see also Bruce S. Ledewitz, The New Role of Statutory Aggravating Circumstances in American Death Penalty Law, 22 Duq. L. Rev. 317, 350–51 (1984) (explaining how *Stephens* "permits consideration of nonstatutory aggravating circumstance [sic] as a basis for the decision to impose the death penalty").

[25] See James R. Acker & Charles S. Lanier, Matters of Life or Death: The Sentencing Provisions in Capital Punishment Statutes, 31 Crim. L. Bull. 19, 33–52 (1995) (describing various state law sentencing formulas).

[26] See Woodson v. North Carolina, 428 U.S. 280, 305 (1976) (plurality opinion); accord Sumner v. Shuman, 483 U.S. 66, 78 (1987). But compare Boyde v. California, 494 U.S. 370, 376–77 (1990) (upholding California's quasi-mandatory capital sentencing scheme, which mandated death if the jury found that aggravating circumstances outweighed mitigating circumstances); Blystone v. Pennsylvania, 494 U.S. 299, 302–3 (1990) (upholding similar Pennsylvania instruction).

[27] The central sentencing provision in South Carolina is set forth at S.C. Code Ann. § 16-3-20(A) (Law. Co-op. 1985 & Supp. 1999).

[28] See *id.* at § 16-3-20(C)(a) (listing aggravating circumstances); *id.* at § 16-3-20(C)(b) (listing mitigating circumstances).

[29] See *id.* at § 16-3-20(A).

[30] The defendant is entitled to introduce all nonstatutory mitigating evidence under Lockett v. Ohio, 438 U.S. at 604 (plurality opinion), and its progeny, and South Carolina law—consistent with Zant v. Stephens, 462 U.S. at 878—permits the state to introduce all nonstatutory aggravating evidence, provided it proves the existence of at least one statutory aggravating circumstance. See State v. Skipper, 328 S.E.2d 58, 61 (S.C. 1985), rev'd on other grounds sub nom. Skipper v. South Carolina, 476 U.S. 1 (1986).

[31] Interview with John Blume, visiting professor, Cornell Law School, director, Cornell Death Penalty Project (July 8, 2000). Blume was the executive director of the South Carolina Death Penalty Resource Center from 1988 to 1996. He continues to litigate capital cases in South Carolina and is well acquainted with capital practice in that state. Although South Carolina trial judges are not required to use this exact language in their charge to the jury, whatever language they use must "convey the [same] substance." State v. Green, 392 S.E.2d 157, 164 (S.C. 1990).

juror supports the death penalty, the more likely she is to find a criminal defendant (capital and noncapital alike) guilty in the first place.[32] It only stands to reason that strong support for the death penalty will also tend to make a juror more apt to vote for death. Other personal characteristics might do the same. Our aim is to test this hypothesis.

Our analysis proceeds in three steps. First, we identify those personal characteristics that appear to exercise the greatest influence on a juror's first vote at sentencing. Second, we do the same with respect to the facts of the case. Finally, we combine these two sets of variables in statistical models that enable us to isolate the influence of any one factor—including the juror's personal characteristics—while holding other factors constant. We take the first two steps in this section and the final one in the section that follows.

A. *Facts about the Jurors*

Public opinion polls have long shown that some groups tend to support the death penalty more than others. For example, whites tend to support it more than blacks, men more than women, the married more than singles, the wealthy more than the poor, and suburbanites more than rural or urban populations.[33] More recent research also suggests that white fundamentalists (such as Southern Baptists)[34] support it more than nonfundamentalists.[35]

[32] The relevant studies are collected and reviewed in Mike Allen *et al.*, Impact of Juror Attitudes about the Death Penalty on Juror Evaluations of Guilt and Punishment: A Meta-analysis, 22 Law & Hum. Behav. 715, 725 (1998) (analyzing 14 studies of death-qualified jurors and finding that the "data support the conclusion that death-qualified voir dire practices produce jurors more likely to render guilty verdicts and therefore more likely to invoke the death penalty as a form of punishment").

[33] See, for example, Fox *et al.*, *supra* note 1, at 503 (detailing these associations).

[34] See Tom W. Smith, Classifying Protestant Denominations, 31 Rev. Religious Res. 225, 238 fig. 1 (1990) (indicating 60+ percent of Southern Baptists believed in the "inerrancy of the Bible").

[35] See, for example, Marian J. Borg, Vicarious Homicide Victimization and Support for Capital Punishment: A Test of Black's Theory of Law, 36 Criminology 537, 548 (1998) ("Membership in a fundamentalist church and understanding the Bible in the literal sense increases the likelihood of support for the death penalty, while evangelicalism decreases it."); Harold G. Grasmick, Robert J. Bursik, Jr., & Brenda Sims Blackwell, Religion, Punitive Justice, and Support for the Death Penalty, 10 Just. Q. 289, 305 (1993) ("Even [controlling for a variety of other variables], liberal/moderate Protestants and those claiming no affiliation are significantly less likely to favor executing adults than are evangeligcal/fundamentalist Protestants."); Harold G. Grasmick *et al.*, Religious Beliefs and Public Support for the Death Penalty for Juveniles and Adults, 16 J. Crim. Just. 59, 72 (1993) (finding that "particular religious beliefs, considered more characteristic of fundamentalist and evangelical Protestants, do appear to evoke greater support for capital punishment"); compare Harold G. Grasmick *et al.*, Protestant Fundamentalism and the Retributive Doctrine of Punishment, 30 Criminology 21, 37 (1992) ("Fundamentalist Protestants appear to be more retributive than other Protestants and than Catholics because they are more inclined to interpret the Bible literally."). But compare Chester L. Britt, Race, Religion, and Support for the Death Penalty: A Research Note, 15 Just. Q. 175, 183 (1998) ("In contrast to recent research on fundamentalist Protestants and support for the death penalty, I found no direct effect of affiliation with a fundamentalist Protestant church on the level of support for the death penalty."). The influence of religion appears to depend on its interaction with race. For example, Young found that the "role of religion in shaping attitudes toward the death penalty" differs significantly between blacks and whites. Young explored three main dimensions of religious experience: evangelicalism (commitment to prosyletization), fundamentalism

Any of these characteristics might also influence how a person votes on a capital jury.

Our interviews collected data on each juror's race, sex, age, socioeconomic status, and religious affiliation. A preliminary analysis found that only two of these variables had any real bearing on a juror's first vote: race and religion.[36] Holding several other juror characteristics constant, Appendix Table A1 shows that black jurors were more apt than white jurors to cast their first vote for life, while Southern Baptists were more apt than members of other religions to cast their first vote for death. None of the other variables (sex, age, and socioeconomic status) bore a statistically significant relation to the juror's first vote. We nonetheless include these variables in the statistical models presented in Section IV*B* in order to ensure that our central findings survive controlling for these variables.

Besides demographic information, our interviews also collected data from each juror on a range of questions about the death penalty and the criminal justice system (see Appendix Tables A2 and A3). For present purposes, we focus on responses to a question that asked jurors how strongly they supported the death penalty for "convicted murders." The five available responses ranged from death being the "only appropriate" punishment to death being an "unacceptable punishment."[37] The question allowed each juror to rank him- or herself along an ordinal scale reflecting the strength of the juror's support for the death penalty. A preliminary analysis found—not surprisingly—that the more a juror supported the death penalty, the more likely she was to cast her first vote for death.

Table 1 summarizes the association between each of these three varia-

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(belief in biblical literalism), and devotionalism (salience of religion in one's life). Evangelicalism generally decreased support for the death penalty, but the impact of evangelicalism was strongest among blacks and may exist only for devout evangelicals. Fundamentalism generally increased support for the death penalty, but only for whites. Similarly, devotionalism decreased support only among whites. See Robert L. Young, Religious Orientation, Race and Support for the Death Penalty, 31 J. Sci. Stud. Religion 76, 83–84 (1992); see also Britt, *supra*, at 188–89 ("[T]he effect of religious affiliation on support for the death penalty is contingent on the respondent's race. . . . Two groups of fundamentalist Protestants—black and white—hold similar religious beliefs but seem to apply those beliefs in very different ways."); compare Gross, *supra* note 1, at 1451 (reporting that "[b]lack respondents were more likely than whites to say that their clergy person spoke out on the issue of capital punishment (39% to 25%), and more likely to report that their religious beliefs had the biggest influence on their thinking on the issue (33% to 17%)").

[36] This finding is consistent with public opinion data showing that race is a "major demographic predictor[] of death penalty attitudes." Gross, *supra* note 1, at 1451. Race is also an important predictor of death penalty support among our jurors. See Eisenberg, Garvey, & Wells, The Deadly Paradox of Capital Jurors, *supra* note 9, at 380 table 1, 382 table 2. Religion too is an important predictor of death penalty support among our jurors; Southern Baptists tend to support the death penalty more than adherents of other faiths. See *id.*

[37] The question asked, "For convicted murderers, do you now feel that the death penalty is . . ." The available responses were "the only acceptable punishment," "the most appropriate of several punishments," "just one of several appropriate punishments," "the least appropriate of several punishments," and "an unacceptable punishment." See Survey, *supra* note 14, at 61 (question VIII.3).

TABLE 1

RACE, RELIGION, SUPPORT FOR THE DEATH PENALTY, AND JUROR'S FIRST VOTE

	JUROR'S FIRST VOTE (%)				
	Life	Undecided	Death	*p*-VALUE	*n*
Race:					
White	25	11	64	.000	151
Black	55	15	30		33
Religion:					
Non–Southern Baptist	35	12	53	.002	151
Southern Baptist	9	12	79		34
Death penalty support:					
Unacceptable	50	25	25	.000	4
Least appropriate of several	100	0	0		3
One of several appropriate	42	12	47		94
Most appropriate	16	10	74		58
Only acceptable	12	16	72		25

SOURCE.—Juror interviews in South Carolina capital cases.

NOTE.—The three *p*-values report the significance of the differences based on race, religion, and death penalty support. The *p*-values for race and religion are based on a Mann-Whitney test. The *p*-value for death penalty support is based on Kendall's τ.

bles—a juror's race, religion, and the degree to which he supports the death penalty—and the juror's first vote.

Race. Nearly two-thirds of white jurors cast their first vote for death compared to only about one-third of black jurors. Whites are therefore roughly twice as likely to vote for death on the first ballot as are blacks. The difference between the two groups is statistically significant ($p < .001$).

Religion. Nearly 80 percent of Southern Baptists vote for death on the first vote compared to about 50 percent of jurors of other denominations. Southern Baptists are therefore nearly 50 percent more likely to vote for death on the first ballot than are believers of other faiths. Once again, the difference is statistically significant ($p = .002$). Moreover, although all but one of the 34 Southern Baptists in our sample are white, this religious difference is not a racial difference in disguise. The tendency of Southern Baptists to cast their first vote for death persists when we look only at white jurors and compare white South Baptists with white jurors of all other denominations ($p = .012$).

Death Penalty Support. Among jurors who believe that death is the only acceptable punishment for murder, 72 percent cast their first vote for death.[38] The corresponding figures are much smaller for jurors who believe that death is unacceptable, the least appropriate, or just one of several appropriate punishments. The difference between these groups is once again statistically

[38] Twenty-five jurors reported believing that the death penalty is the only acceptable punishment for murder. Nonetheless, some of these jurors did not in fact cast their first vote for death. Seven of the 25 reported having first voted for life or having been undecided on the first vote. Still, the overwhelming majority—72 percent—did indeed vote for death on the first ballot.

significant ($p < .0001$); moreover, these differences remain even when we look at white jurors and black jurors separately. For white jurors alone, the difference is significant at $p < .001$. For the much smaller sample of black jurors alone, the difference is significant at $p = .085$.

B. Facts about the Case

Having identified the personal characteristics most likely to influence a juror's first vote, our second step is to isolate the most influential facts of the case. Our prior research suggests three such facts: the seriousness of the crime, the defendant's remorse, and the defendant's future dangerousness.[39] We will later use each of these variables to control for the facts of the case when we construct the statistical models by which we plan to accomplish our primary goal, to isolate the effect on a juror's voting behavior attributable to her personal characteristics. Accordingly, we briefly review our prior findings here.

1. The Seriousness of the Crime

Murder is the only crime punishable by death.[40] All murders are of course serious crimes, and capital murders are aggravated murders.[41] Still, some capital murders are worse than others, and a juror is more apt to vote for death when she believes the crime is among the worse of the worst.

To learn how each juror assessed the seriousness of the crime, we asked how well a particular word or phrase—for example, "vicious" or "bloody"—described the killing. Table 2 reports the mean responses for each word or phase, as well as the relationship between a particular word or phrase and a juror's first vote.

The first column lists 12 words or phrases used to describe the killing.

[39] See, for example, Eisenberg, Garvey, & Wells, But Was He Sorry? *supra* note 9, at 1635 table 10 (presenting regression models based on South Carolina CJP data suggesting the importance of the seriousness of the crime, the defendant's remorse, and the defendant's future dangerousness); see also Garvey, Aggravation and Mitigation in Capital Cases, *supra* note 9, at 1555 table 2, 1559 table 4 (finding based on South Carolina CJP data that many jurors report that each of these three factors did or would make them more likely to vote for death).

[40] Compare Coker v. Georgia, 433 U.S. 584, 592 (1977) ("[A] sentence of death is grossly disproportionate and excessive for the crime of rape and is therefore forbidden by the Eighth Amendment.").

[41] All capital murders are aggravated murders insofar as the state is constitutionally obligated through the use of aggravating circumstances to make the class of death-eligible murders smaller than the class of all murders. Yet many state capital statutes contain an extensive list of aggravating factors (any one of which converts murder into capital murder), and some common aggravating circumstances plausibly apply to nearly every murder. The result is that in many states almost any murder can be charged as capital murder. Compare Carol S. Steiker & Jordan M. Steiker, Sober Second Thoughts: Reflections on Two Decades of Constitutional Regulation of Capital Punishment, 109 Harv. L. Rev. 355, 373 (1995) ("[D]eath-eligibility remains remarkably broad—indeed, nearly as broad as under the expansive statutes characteristic of the pre-*Furman* era.").

TABLE 2

SERIOUSNESS OF THE CRIME AND JUROR'S FIRST VOTE

Description of Killing[a]	Mean	Variance	Bivariate p-Value	Regression p-Value	n
Bloody	3.34	.76	.028	.127	184
Gory	3.14	1.02	.001	.015	185
Vicious	3.68	.46	.000	.036	186
Depraved	3.29	.83	.002	.007	185
Calculated	3.15	1.04	.002	.016	186
Cold-blooded	3.75	.40	.000	.001	186
Senseless	3.88	.13	.012	.090	187
Repulsive	3.65	.41	.040	.606	185
Work of a madman	2.68	1.24	.040	.112	185
Made you sick to think about it	3.32	.85	.041	.224	186
Victim made to suffer before death	3.11	1.38	.000	.017	185
Body maimed or mangled after death	1.95	1.49	.153	.347	182

SOURCE.—Juror interviews in South Carolina capital cases.

NOTE.—The bivariate p-values are based on Kendall's τ. The regression p-values are based on ordered probit regressions that account for the nonindependence of jurors who sat on the same case. The dependent variable is the first vote (life, undecided, or death); the independent variables are the word or phrase in each row of the first column plus a dummy variable reflecting the final sentence.

[a] "In your mind, how well [on a 1–4 scale] do the following words describe the killing? 1, not at all; 2, not so well; 3, fairly well; 4, very well."

The second and third columns report the mean value and variance (respectively) of the responses on a 1–4 scale, with 1 indicating that the word or phrase described the crime "not at all" and 4 indicating that it described the crime "very well." For example, "senseless" has a mean value of 3.88 (out of four) and a variance of only .13; thus, nearly all jurors thought the killing in the case on which they sat would be well described as "senseless." Likewise, most jurors thought "vicious" described the killing "very well," although the range of responses was greater (.46 for "vicious" compared to .13 for "senseless").

The fourth column (labeled "Bivariate p-Value") explores the relation between each of the words or phrases and the juror's first vote. The figures report the p-value derived from a test of the hypothesis that no correlation exists between the particular word and phrase and the first vote. For example, the odds that the correlation between a juror's assessment of the killing's viciousness and her first vote is the result of chance is less than one in 1,000 ($p < .001$). Thus, the more vicious a juror thought the killing was, the more likely her first vote would be for death.

Like the fourth column, the fifth column (labeled "Regression p-Value") also explores the relation between each of the words or phrases and the juror's first vote but takes the analysis one step further. The fifth column reports p-values, as does the fourth. However, in contrast to the fourth col-

umn's, the fifth column's *p*-values are based on simple statistical models that test the relationship between the first vote and a particular word or phrase while controlling, through a dummy variable, for the final sentence. Adding this control helps reduce the effect of hindsight bias, the risk that a juror will describe the crime as, for example, especially vicious because she voted for death, and not the other way around.

Several of the words used to describe the killing—"gory," "vicious," "depraved," "calculated," "cold-blooded," and "victim made to suffer"—are statistically significant in both the simple correlations (fourth column) and in the simple regression models (fifth column). Nonetheless, only two—"vicious" and "victim made to suffer"—continue to be significant when (in models not reported here) we control for other key variables, such as the juror's race, the juror's support for the death penalty, and the defendant's remorse. Accordingly, we will use "vicious" as a proxy for the seriousness of the defendant's crime in the models we construct later on.[42]

2. The Defendant's Remorse

A juror's first vote depends on the seriousness of a defendant's crime. It also depends on how a defendant responds to his crime. All else being equal, a remorseful defendant is more apt to receive a life sentence than is a defendant who shows no remorse.[43]

We asked each juror if he thought the defendant was "sorry for what he did."[44] Responses ranged from 1 to 4. A 4 indicated that the juror believed "sorry for what he did" described the defendant "very well"; a 1 indicated that "sorry" described the defendant "not at all."[45] Table 3 shows the association between a juror's belief that the defendant was remorseful and the juror's first vote.

Among jurors who detected no remorse from the defendant, over three-quarters (76 percent) cast their first vote for death. In contrast, among jurors who believed "sorry" described the defendant "very well," only about 30

[42] Similar models that use "victim made to suffer" do not differ materially from those reported in Section IV *infra*.

[43] See Eisenberg, Garvey, & Wells, But Was He Sorry? *supra* note 9, at 1637 (concluding on the basis of prior statistical analysis of South Carolina CJP jurors that "remorse makes a difference to the sentence the defendant receives—provided jurors do not think the crime is too vicious"); see also Sundby, The Capital Jury and Absolution, *supra* note 9, at 1596 (concluding on the basis of analysis of California CJP jurors that the "more evidence that the jury can find indicating the defendant's acceptance of responsibility for the killing the more likely the jury will be to return a life sentence").

[44] See Survey, *supra* note 14, at 11 (question II.B.4—"What was your impression of the defendant?").

[45] See *id.*

TABLE 3

DEFENDANT'S REMORSE AND JUROR'S FIRST VOTE

HOW WELL DOES "SORRY" DESCRIBE THE DEFENDANT?	JUROR'S FIRST VOTE (%)			
	Life	Undecided	Death	*n*
Not at all	16	8	76	74
Not so well	28	13	59	54
Fairly well	43	25	32	28
Very well	62	8	31	26

SOURCE.—Juror interviews in South Carolina capital cases.
NOTE.—The p-value for the association between remorse and first vote is $p < .0001$ based on Kendall's τ.

percent went for death on the first vote. The difference is highly significant ($p < .0001$).[46]

Moreover, if jurors who thought the defendant was very sorry tended to vote for life, and if jurors who thought the defendant lacked remorse tended to vote for death, jurors who were uncertain about the defendant's remorse tended to be undecided. Fourteen of the 22 jurors (63 percent) who were undecided at the first vote thought "sorry" described the defendant only "fairly well" or "not so well." In contrast, only 68 of the 160 jurors who were not undecided on the first vote (that is, who voted for life or death) thought "sorry" described the defendant "fairly well" or "not so well." The difference is statistically significant at $p = .071$.[47]

3. The Defendant's Future Dangerousness

The seriousness of the defendant's crime looks to the past and what the defendant did. The defendant's remorse looks to the present and how the defendant has responded to what he did. The final factor that influences a capital juror's first vote (and about which we have data) looks to the future and the chances that the defendant will continue to be dangerous.

A few states expressly recognize future dangerousness as a statutory aggravating circumstance,[48] most notably Texas and Virginia.[49] South Carolina

[46] The p-value for life cases alone is $p = .011$; for death cases alone $p = .013$. The association between the defendant's remorse and the juror's first vote remains significant in regression analyses that account for the clustered nature of the sample and that include a dummy variable for the final vote. See note 13 *supra*.

[47] The p-value for life cases alone is $p = .230$; for death cases alone $p = .276$. The association between a juror's uncertainty about the defendant's remorse and an undecided first vote is significant at $p = .088$ in a regression analysis that accounts for the clustered nature of the sample and that includes a dummy variable for the final vote. See note 13 *supra*.

[48] See Acker & Lanier, "Parsing This Lexicon of Death," *supra* note 22, at 118–21 (noting that "[s]tatutes in six jurisdictions make the offender's future dangerousness relevant to capital sentencing decisions").

[49] See Tex. Code Crim. Proc. Ann. art. 37.071(2)(b)(1) (West 1994 & Supp. 2000); Va. Code Ann. § 19.2-264.4(C) (Michie 1995 & Supp. 2000).

does not.[50] Nonetheless, once it proves the existence of at least one statutory aggravating circumstance, the prosecution in South Carolina is free to emphasize the defendant's future dangerousness,[51] and many South Carolina solicitors do.[52] Jurors are likewise free to consider future dangerousness, and the evidence again suggests that many do.[53]

We asked jurors two different questions related to the defendant's future dangerousness. The first asked if, "after hearing all of the evidence," the juror believed it "proved" the defendant "would be dangerous in the future."[54] The second asked how long the juror thought the defendant would actually remain in prison if not sentenced to death.[55]

Future Dangerousness. Most jurors (almost 80 percent) thought the evidence proved the defendant would be dangerous in the future. Predictably, a juror who believed the defendant was dangerous was more likely to cast her first vote for death than was one who did not ($p = .003$). Nonetheless, if we add this measure of a defendant's future dangerousness to a statistical model (not reported here) that includes the two variables we have already considered—the seriousness of the crime and the defendant's remorse—the model's ability to explain a juror's first vote improves very little. In other words, a juror's belief that the evidence proved the defendant would be dangerous may be little more than a function of the seriousness of the crime and the remorse of the defendant.[56]

On reflection, this result makes perfectly good sense. More serious crimes are more apt to lead to a diagnosis of dangerous than are less serious ones. Likewise, defendants who suffer no remorse are less likely to have learned their lesson and more likely to repeat their sins than are those who do. Because this measure of future dangerousness adds little to what we already have, we exclude it from the models we construct below.

Expected Prison Term. Prior CJP research,[57] including an analysis of a

[50] See S.C. Code Ann. § 16-3-20(C)(a) (Law. Co-op. 1985 & Supp. 1997).

[51] Compare State v. Skipper, 328 S.E.2d 58, 61 (S.C. 1985) (allowing introduction of nonstatutory aggravating circumstances), rev'd on other grounds sub nom. Skipper v. South Carolina, 476 U.S. 1 (1986).

[52] See Eisenberg & Wells, *supra* note 9, at 17 app. (presenting table showing that future dangerousness was high among the topics jurors recalled the prosecutor emphasizing at the punishment stage).

[53] See *id.* at 5 table 1 (showing that future dangerousness was high among the topics on which jurors recalled focusing during their penalty phase discussions).

[54] See Survey, *supra* note 14, at 30 (question III.C.16—"After hearing all of the evidence, did you believe—yes, no, undecided—it proved that [the defendant] would be dangerous in the future?").

[55] See *id.* at 39 (question IV.9—"How long did you think someone not given the death penalty for capital murder in this state usually spends in prison?").

[56] An ordered probit model with future dangerousness as the dependent variable and the seriousness of the crime and the defendant's remorse as the independent variables yields large and significant coefficients for both independent variables.

[57] See Bowers & Steiner, *supra* note 9, at 654–55 table 3 (showing relationship based on nationwide CJP data between juror voting behavior and estimated prison term).

smaller sample of South Carolina CJP jurors,[58] shows an association between the sentence a defendant receives and the length of time a juror believes a defendant will remain in prison if not sentenced to death. The more time a juror believes the defendant will remain in prison, the more likely he is to vote for life; the less time, the more likely he is to vote for death.

The length of time a juror thinks a capital defendant will remain in prison if not sentenced to death no doubt depends on the assumptions with which he begins. Public opinion polls show that few people believe capital defendants sentenced to life imprisonment without parole will in fact never be released.[59] Nor do many capital jurors.[60] Of course, unlike members of the public at large, a juror's beliefs about parole eligibility will also depend on what, if anything, the trial court tells the juror about when, if at all, the defendant will be eligible for release under state law—assuming the juror believes what she is told.

South Carolina law on both these matters—the law governing parole eligibility for capital defendants and the law governing the manner in which juries are instructed about parole eligibility—changed during the interval over which we conducted our interviews.[61] At one time, a defendant not sentenced to death would be eligible for parole after 20 or 30 years;[62] at another time, a defendant not sentenced to death would never be eligible for parole.[63] At one time, trial courts were required to tell jurors about a defen-

[58] See Eisenberg & Wells, *supra* note 9, at 7 (finding statistically significant difference between mean estimated prison term among jurors who served on life cases and jurors who served on death cases).

[59] See Death Penalty Info. Ctr., Sentencing for Life: Americans Embrace Alternatives to the Death Penalty (April 1993) (reporting based on March 1993 poll of 1,000 registered voters nationwide that "[w]hen asked how long someone with a sentence of life without parole would serve, only 11% believed that such a person would never be released"). During a period in which capital defendants were eligible under South Carolina law for parole after 30 years, nearly three-quarters of South Carolinians similarly believed capital defendants not sentenced to death would be released in less than 30 years. See James M. Hughes, Note, Informing South Carolina Capital Juries about Parole, 44 S.C. L. Rev. 383, 408–10 tables 1–3 (1993) (reproducing results of 1991 public opinion survey of South Carolina respondents conducted by the University of South Carolina Institute of Public Affairs).

[60] See Bowers & Steiner, *supra* note 9, at 647 table 1 (showing that the median estimated prison term among jurors in states in which the alternative to death is life imprisonment without the possibility of parole ranges from 12–20 years); see also *id.* (showing that the median estimated prison term among jurors in states in which the alternative to death is less than life imprisonment without the possibility of parole is consistently less than the actual mandatory minimum under state law).

[61] For an overview of some of these changes related to jury instructions on parole eligibility, see Hughes, *supra* note 59, at 387–401 (reviewing changes in South Carolina law).

[62] See S.C. Code Ann. § 16-3-20(A) (Law. Co-op. 1985 & Supp. 1993). The defendant would be eligible for parole after 30 years if the jury found the existence of a statutory aggravating factor; otherwise, he would be eligible for parole after 20 years. The one exception involved capital defendants with a prior conviction for a crime of violence, in which case the defendant was ineligible for parole for life. See *id.* § 24-21-640 (Law. Co-op. 1985 & Supp. 1993).

[63] See *id.* at § 16-3-20(A) (Law. Co-op. 1985 & Supp. 1999).

dant's parole eligibility, if and when the defendant asked that they be told;[64] at another time, trial courts were required to tell jurors nothing about a defendant's parole eligibility, even if the jurors asked.[65]

If we wanted to identify the factors that influence a juror's estimate of a defendant's release time, we would need to take account of all these changes. But that is not our aim. We want instead to identify the effect a juror's estimate of a defendant's release time has on how she votes, whatever factors, including changes in the law, influence that estimate to begin with.

Nonetheless, we do account for one important legal change. Between June 1991 and June 1994—a period during which many of the cases in our sample were tried—South Carolina jurors were told nothing about a defendant's parole eligibility.[66] If they asked what "life imprisonment" really meant, they were simply told to give the term its "ordinary and plain meaning."[67] But on June 17, 1994, the United States Supreme Court stepped in. In *Simmons v. South Carolina*,[68] a plurality of the Court held that "where the defendant's future dangerousness is at issue, and state law prohibits the defendant's release on parole, due process requires that the sentencing jury be informed that the defendant is parole ineligible."[69]

We highlight *Simmons* because we are unsure of its effect. In particular, we wonder whether it could have affected the relationship our prior research identified between a juror's estimate of the defendant's prison term and the juror's final vote.[70] Fortunately, our sample includes jurors who sat on cases tried before *Simmons* as well as afterward; thus we can test to see if *Simmons* has in fact made any difference. We therefore divided the jurors into two groups, ones who sat on cases tried before *Simmons*, and ones who sat on cases tried after; we then computed how long on average each group thought a defendant would remain in prison if not sentenced to death. Table 4 reports the results.

Pre-*Simmons* jurors behave just as we would expect. Jurors who sat on cases tried before *Simmons* and who cast their first vote for life estimated on average that a defendant not sentenced to death would spend 21.7 years in prison before being released. In contrast, pre-*Simmons* jurors who cast

[64] See State v. Atkins, 360 S.E.2d 302, 305–6 (S.C. 1987), overruled by State v. Torrence, 406 S.E.2d 315 (S.C. 1991).

[65] See State v. Torrence, 406 S.E.2d 315, 323 (S.C. 1991) (Chandler, J., concurring, joined by majority of the court), overruling State v. Atkins, 360 S.E.2d 302 (S.C. 1987).

[66] See 406 S.E.2d at 323.

[67] See *id.* at 322 (quoting State v. Norris, 328 S.E.2d 339, 344 (S.C. 1985)).

[68] 512 U.S. 154 (1994).

[69] *Id.* at 156; see also State v. Southerland, 447 S.E.2d 862, 868 (S.C. 1994) (holding that due process requires argument or instruction on defendant's parole eligibility but only "[w]hen the State puts a defendant's future dangerousness at issue and state law prohibits defendant's release on parole").

[70] See Eisenberg & Wells, *supra* note 9, at 7.

TABLE 4

MEAN ESTIMATED PRISON TERM (in Years)

	Life	Undecided	Death	All Jurors	*n*
First vote:					
Pre-*Simmons*	21.7	18.5	18.1	19.4	126
Post-*Simmons*	13.8	18.8	18.0	17.5	29
Final vote:					
Pre-*Simmons*	22.7	. . .	17.2	19.8	40
Post-*Simmons*	14.2	. . .	19.9	17.3	13

SOURCE.—Juror interviews in South Carolina capital cases.

NOTE.—Simmons v. South Carolina, 512 U.S. 154 (1994), held that, under certain circumstances, jurors must be told when a life sentence required the defendant to spend the rest of his life in prison.

their first vote for death estimated on average that a defendant not sentenced to death would spend only 18.1 years in prison before release. Thus, the longer a juror thought the defendant would remain in prison if not sentenced to death, the more likely she was to vote for life, and vice versa. The difference between these two groups is statistically significant at $p = .069$.[71]

Oddly, this relationship breaks down after *Simmons*. The mean estimated prison term among jurors who sat on cases after *Simmons* and who cast their first vote for life was actually shorter that the estimate among jurors who cast their first vote for death (13.8 years compared to 18.0 years). Indeed, the difference is statistically significant at $p = .076$.

The same unusual pattern emerges for the final vote. Pre-*Simmons* juries behave as we would have guessed. Life juries expected the defendant to remain in prison for 22.7 years before being released, while death juries expected the defendant to remain in prison for only 17.2 years, with the difference between the two groups reaching statistical significance at $p = .010$.[72] Yet once again the result changes when we look at post-*Simmons* juries; life juries now estimate an earlier release than death juries, with the difference reaching statistical significance at $p = .036$.

Regrettably, we have no explanation for the change in behavior among jurors who sat on cases tried before *Simmons* and those who sat on cases tried afterward. It may be due to the direct impact of *Simmons*, resulting changes in prosecutorial behavior, simultaneous changes in South Carolina law independent of *Simmons*, or something else altogether. Still, any attempt to explain a juror's first vote using a data set that includes cases tried both before and after *Simmons* should account for this change, which we do.

[71] This measure excludes jurors who were undecided on the first vote and jurors who expressed no view as to the defendant's expected prison term if not sentenced to death.

[72] The previously reported pre-*Simmons* result, see Eisenberg & Wells, *supra* note 9, at 6–7, thus survives when the pre-*Simmons* sample is expanded to 40 cases from the earlier sample of 31.

IV. Forecasting Life and Death

We have so far isolated three facts about the jurors (race, religion, and support for the death penalty) and three about the case (seriousness of the crime, remorse, and future dangerousness) that appear to influence a juror's first vote for life or death.

Still, the analysis is incomplete. Our results show only that a simple correlation exists between each of the six critical variables and a juror's first vote. But any one of these variables might also correlate with a second variable, and the second variable, not the first, might be the one that really accounts for the observed association between the first variable and a juror's initial vote. For example, black jurors might for some unknown reason happen to have served on cases involving the least serious crimes, so that the seriousness of the crime, not race, is what actually accounts for the observation that black jurors are more likely to vote for life compared to white jurors. In order to detect such spurious associations, we employ multiple regression.

But first we pause to note five other variables in addition to the six just mentioned: the defendant's race, the victim's race, and three additional juror demographic variables—age, sex, and socioeconomic status. Prior research conducted in South Carolina,[73] as well as in several other states,[74] suggests that defendant and victim racial effects may help explain prosecutorial decisions to charge a defendant with a capital crime.[75] More recent work sug-

[73] See John H. Blume, Theodore Eisenberg, & Sheri Lynn Johnson, Post-*McCleskey* Racial Discrimination Claims in Capital Cases, 83 Cornell L. Rev. 1771, 1782, 1790, 1794 n.116 (1998) (collecting evidence of race-based "death-seeking" decision making on part of solicitors in several South Carolina counties); Raymond Paternoster & Ann Marie Kazyaka, The Administration of the Death Penalty in South Carolina: Experiences over the First Few Years, 39 S.C. L. Rev. 245, 278–79, 405 (1988) (concluding on the basis of well-controlled analysis of 302 death-eligible felony murders—which constituted 97 percent of all death-eligible murders in South Carolina between 1977 and 1981—that "South Carolina prosecutors operated with a race-specific definition of homicide severity and were more tolerant of black-victim than white-victim killings."); Raymond Paternoster, Race of Victim and Location of Crime: The Decision to Seek the Death Penalty in South Carolina, 74 J. Crim. L. & Criminology 754, 764, 784 (1983) (concluding on the basis of analysis of 321 capital murders in South Carolina between 1977 and 1981 that "prosecutor's decision to seek the death penalty is significantly related to the race of the victim").

[74] The classic work in the area is the study conducted by David Baldus and his colleagues on capital sentencing in Georgia. The results of that study are presented in Baldus, Woodworth, & Pulaski, *supra* note 5. For an exceptionally helpful overview of the post-*Furman* statistical studies investigating the influence of race on capital sentencing, see David C. Baldus *et al.*, Racial Discrimination and the Death Penalty in the Post-*Furman* Era: An Empirical and Legal Overview, with Recent Findings from Philadelphia, 83 Cornell L. Rev. 1638, 1742–45 app. B (1998) (summarizing as of 1998 all statistical studies following *Furman* that have investigated race-of-defendant and race-of-victim discrimination in capital sentencing).

[75] We found no within-race effects when we compared black men with black women and white men with white women. Nor did we find a black defendant–white victim effect or effects based on juror-defendant racial combinations (other than the basic juror effect) or juror-victim combinations. We also tested for a location-of-prosecution effect based on the county in which the case was prosecuted, but found none.

gests that the defendant's race and the victim's race also help explain how jurors behave.[76] Including the additional demographic variables ensures, for example, that what are really juror socioeconomic effects will not be mistaken for juror race effects. We construct a three-level scale (1–3) for socioeconomic status, roughly corresponding to low, middle, and high socioeconomic status.[77]

A. *Preliminary Analysis*

We begin with a summary of the variables used in the regression analysis. Table 5 gives descriptive statistics for each variable, as well as the p-value for the relation between each variable and the juror's first vote, the juror's final vote, and the jury's final vote.

For the most part, the results are self-explanatory. For example, the race variable ("Black juror") shows that 17.8 percent of the jurors interviewed were black,[78] that the association between a juror's race and the juror's first vote is statistically significant ($p < .001$), that the association between a juror's race and the juror's final vote is insignificant ($p = .701$), and that the association between a juror's race and the jury's final sentence is also insignificant ($p = .573$).

We include two different variables for estimated prison term, one using the estimates of all the jurors, the other using the estimates only of those jurors who sat on cases tried before *Simmons*. We create two dummy variables

[76] See Baldus *et al.*, *supra* note 74, at 1682 table 4, 1713–15 (finding and reporting race-of-defendant and race-of-victim discrimination attributable to jury decision making based on well-controlled statistical analysis of data gathered in Philadelphia); *id.* at 1664 & n.79 (reporting race-of-defendant discrimination attributable to jury decision making based on well-controlled statistical analysis of data gathered in New Jersey); David C. Baldus *et al.*, The Use of Peremptory Challenges in Capital Murder Trials: A Legal and Empirical Analysis, 3 U. Pa. J. Const. L. 3, 124 (2001) (jury racial composition affects sentencing outcome); Bowers, Steiner, & Sandys, *supra* note 9.

[77] We base socioeconomic status on education and income levels. Education is coded on a 0–6 scale, with 0 indicating a grade school education and 6 indicating attendance at graduate or professional school. Income is based on a 1–6 scale with 1 corresponding to income of less than $10,000 and 6 corresponding to income of $75,000 or more. We added these two numeric scales together to form a socioeconomic scale. Jurors with a score of 0–5 are labeled "low," those with a score of 6–8 are labeled "middle," and those with a score greater than 8 are labeled "high." For computational purposes, "low" is set equal to 1, "middle" to 2, and "high" to 3.

[78] Jurors report that blacks constituted about 29 percent of the total number of jurors, but they constitute only about 18 percent of the 187 interviewed jurors. Consequently, the juror reports would indicate that black jurors are underrepresented in our sample. We have run regression models with first vote and final vote as the dependent variable and the race of the jurors based on the reports of our jurors (rather than on the race of the jurors actually interviewed) as an independent variable without any material change in the results. In Philadelphia, a jurisdiction in which blacks comprise a higher percentage of jurors, Baldus *et al.*, *supra* note 76, at 113, an increased percentage of black jurors correlates with a lower rate of death sentences. *Id.* at 124. So our finding of no significant relation between race and final vote might differ were more blacks to serve on South Carolina juries. The work of Baldus *et al.* confirms our finding of no significant sex effect on juror voting patterns. *Id.*

TABLE 5

SUMMARY OF KEY VARIABLES INFLUENCING FIRST AND FINAL VOTES

	MEAN	MIN	MAX	*p*-VALUES			*n*
				First Vote	Final Vote (Juror Level)	Final Vote (Jury Level)	
First vote (1 = life, 2 = undecided, 3 = death)	2.276	1	3	. . .	. . .	. . .	185
Death sentence (0 = life, 1 = death)	.535	0	1	. . .	. . .	. . .	187
Black juror (1 = yes)	.178	0	1	.000	.701	.573	185
Southern Baptist juror (1 = yes)	.182	0	1	.002	.013	.020	187
Support for the death penalty (1–5 scale)	3.524	1	5	.000	.001	.001	185
Female juror (1 = yes)	.538	0	1	.482	.769	.800	186
Juror socioeconomic status (1–3 scale)	1.898	1	3	.496	.420	.397	187
Juror age (years)	44.296	22	75	.835	.561	.490	185
Seriousness of crime (1–4 scale)	3.683	1	4	.000	.000	.001	186
Defendant's remorse (1–4 scale)	2.022	1	4	.000	.000	.000	184
Defendant's race (1 = black)	.424	0	1	.952	.295	.442	184
Victim's race (1 = black)	.086	0	1	.866	.018	.212	185
Estimated prison term (all cases) (years)	19.026	4	60	.249	.022	.126	156
Estimated prison term (pre-*Simmons* cases) (years)	19.373	4	60	.167	.001	.010	126
No estimated prison term (1 = yes)	.166	0	1	.934	.173	.216	187
Post-*Simmons* case (1 = yes)	.203	0	1	.255	.588	.999	187

SOURCE.—Juror interviews in South Carolina capital cases.

NOTE.—The *p*-values are based on a Mann-Whitney test for the association between the first vote and 0–1 variables, on Kendall's τ for ordered categorical variables, and on an analysis of variance for estimated prison time and juror age. The *p*-values are based on Fisher's exact test for the association between the final vote (juror level) and 0–1 variables, on a Mann-Whitney test for ordered categorical variables, and on a *t*-test for estimated prison time and juror age. The *p*-values are based on *t*-tests for the association between the final vote (jury level) and 0–1 variables, ordered categorical variables, estimated prison time, and juror age. The *p*-values are based on Fisher's exact test for the association between the first vote, the final vote (juror level), and the final vote (jury level) and the post-*Simmons* dummy variable.

to account for two potential problems with the estimated prison term variables. The first dummy variable accounts for the fact that some jurors (16.6 percent) expressed no view on the expected prison term if the defendant was not sentenced to death. The second dummy variable, together with an interaction term equal to the product of this dummy variable and the expected prison term,[79] controls for any change resulting from the Supreme Court's decision in *Simmons*.

[79] For discussion of interaction terms in categorical data models, see Alan Agresti, Categorical Data Analysis 281 (1990).

B. Regression Analysis

Table 6 reports five ordered probit models of the first vote in which the dependent variable takes on the values of life, undecided, and death and two probit models of the final vote (life or death). Different models contain different combinations of independent variables. The models account for the fact that multiple jurors were interviewed per case.

1. First Vote

Statistical Significance. Race, religion, and support for the death penalty are statistically significant in all of the first-vote models in which they appear. First, the more strongly a juror supported the death penalty (that is, the more the juror believed the appropriate punishment for convicted murderers is death), the more likely the juror was to cast her first vote for death. The association between death penalty support and a juror's first vote is statistically significant in all the first-vote models. Second, Southern Baptists are more likely to cast a first vote for death than are members of other faiths. The association between Southern Baptism and a first vote for death is also statistically significant in all the first-vote models, highly so in models 1 and 3 and marginally so in model 5, which controls for the final vote (life or death) through a dummy variable.

Finally, a white juror was more apt to cast his first vote for death than was a black juror.[80] The association between race and a first vote for death is statistically significant in all the first-vote models. Race is less significant in model 1, but this reduced significance has a simple explanation. Model 1 includes religion as an independent variable in addition to race, but all Southern Baptists in our sample (save one) were white. Consequently, the addition of the religion variable means the race variable ends up comparing black jurors with only the most moderate white jurors, which naturally diminishes the significance of race. When black jurors are compared to all white jurors, as in models 2 and 4, race is highly significant, as it is when we control for the final vote in model 5.

[80] This is in accord with Bowers, Steiner, & Sandys, *supra* note 9, at 199, which does not confirm this result through regression analysis but does control for case variation by limiting the sample to cases in which both blacks and whites sat on the same juries. *Id.* at 199 n.119. Compare John M. Conley, William J. Turnier, & Mary R. Rose, The Racial Ecology of the Courtroom: An Experimental Study of Juror Response to the Race of Criminal Defendants, 2000 Wis. L. Rev. 1185, 1202 (finding no juror race effect). For a review of the then-extant literature examining the influence of a juror's race on his or her decision making, see Nancy J. King, Post-conviction Review of Jury Discrimination: Measuring the Effects of Juror Race on Jury Decisions, 92 Mich. L. Rev. 63, 80–99 (1993). For a review of the mock jury studies conducted before 1985 that support the claim that "jurors in criminal trials will tend to convict other-race defendants under circumstances in which they would acquit same-race defendants," see Sheri Lynn Johnson, Black Innocence and the White Jury, 83 Mich. L. Rev. 1611, 1625–40, 1640 (1985). For a review of the then-extant social psychological theories offering an explanation for this effect, see King, *supra*, at 77–80.

Social Significance. The associations between a juror's first vote and his race, religion, and support for the death penalty are of substantial magnitude. Consider the influence of race in model 4. Substituting a black juror for a white juror would increase the probability of a first vote for life by .243[81] and decrease the probability of a first vote for death by .276. Since any probability lies between zero and one, changes of this magnitude are substantial. For example, if a white juror had a .78 probability of casting her first vote for death based upon all the factors included in the model, a similarly situated black juror would have a like probability of about .50.

Religion and support for the death penalty also have substantial effects. Consider model 3. If we removed a white juror who is not Southern Baptist and replaced him with a white juror who is, the probability of a first vote for death would increase by .201, and the probability of a life vote would decrease by .139.[82] Similarly, if we removed a juror who thought death was an unacceptable punishment and substituted a juror who thought death was the only acceptable punishment, the probability of a first vote for death would increase by .602; in fact, if we removed a juror who thought death was the most appropriate punishment and substituted a juror who thought death was the only acceptable punishment, the probability of a first vote for death would still increase by .129.[83]

Explaining the Data. We can assess a model's explanatory power—its ability to successfully describe how jurors voted—by examining the probability that the model assigns to the votes for life and death for each juror.[84] The higher the percentage of first votes correctly classified, the more powerful the model. Results appear in Table 6's penultimate row ("Percent correct"). Of the first-vote models that do not include the sentencing outcome as an explanatory variable, model 1 is the best. The 77.9 percent figure means that the model correctly forecasts a juror's first vote 77.9 percent of the time.[85] In comparison, a model that blindly predicted a juror would always cast his first vote for death would be right 70.7 percent of the time. Model 1 thus represents a modest improvement, but a modest improvement is still an improvement; indeed, the last row in Table 6 ("Percent error reduction")

[81] We hold the other independent variables constant at their mean values. For a discussion of estimating the change in probability of an outcome based on discrete change in explanatory variables, see J. Scott Long, Regression Models for Categorical and Limited Dependent Variables 135–38 (1997).

[82] We set the race variable to white and all other independent variables to their mean values.

[83] We set the race variable to white, the religion variable to non–Southern Baptist, and all other independent variables to their mean values.

[84] We treat the model as being correct when the maximum probability for a juror's first vote suggested by the model matches the juror's first vote. We excluded undecided first votes from the analysis.

[85] This percentage is adjusted to reflect sampling weights. The models compare even more favorably with the naive model without this adjustment.

TABLE 6

PROBIT MODELS OF FIRST VOTE AND FINAL VOTE

	FIRST VOTE (Ordered Probit) (1 = Life, 2 = Undecided, 3 = Death)					FINAL VOTE (Probit) (0 = Life, 1 = Death)	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Black juror (1 = yes)	−.620*	−.687*	−.645*	−.708*	−.799*	.550+	.431+
	(2.14)	(2.40)	(2.34)	(2.63)	(2.63)	(1.98)	(1.82)
Southern Baptist juror (1 = yes)	.733*	. . .	.621*	. . .	.491	.586	.497+
	(2.21)		(2.14)		(1.64)	(1.65)	(1.75)
Support for the death penalty (1–5 scale)	.419*	.437**	.425*	.450**	.369*	.309*	.328*
	(2.58)	(2.75)	(2.64)	(2.85)	(2.32)	(2.23)	(2.43)
Socioeconomic status (1–3 scale)	−.177	−.157	−.163	−.148	−.202	.148	.187
	(1.44)	(1.43)	(1.32)	(1.31)	(1.66)	(1.11)	(1.49)
Juror age	−.008	−.006	−.007	−.005	−.007	−.011	−.009
	(.76)	(.54)	(.69)	(.52)	(.64)	(1.25)	(1.03)
Juror sex (1 = female)	−.277	−.277	−.254	−.247	−.214	−.312	−.157
	(1.27)	(1.31)	(1.21)	(1.21)	(1.02)	(1.51)	(.77)
Seriousness of the crime (1–4 scale)	.367*	.408*	.400**	.431**	.280	.586**	.507**
	(2.33)	(2.57)	(2.67)	(2.84)	(1.65)	(3.42)	(3.11)
Defendant's remorse (1–4 scale)	−.312**	−.320**	−.339**	−.344**	−.231*	−.362*	−.382**
	(2.91)	(2.82)	(3.25)	(3.10)	(2.19)	(2.30)	(2.83)
Defendant's race (1 = black)	.011	−.035	.066	.022	.079	−.272	−.146
	(.04)	(.13)	(.26)	(.09)	(.34)	(.67)	(.38)

Victim's race (1 = black)	−.173	−.053	−.170	−.075	−.025	−.699	−.633
	(.35)	(.11)	(.34)	(.15)	(.05)	(.91)	(.85)
Expected prison term (years)	−.021*	−.018^{+}	. . .	. . .	. . .	−.045**	. . .
	(2.12)	(1.68)				(2.97)	
No estimated prison term (1 = yes)	−.121	−.148	. . .	. . .	. . .	−.768	. . .
	(.36)	(.41)				(1.57)	
Post-*Simmons*dummy (1 = yes)	−.213	−.300	. . .	. . .	. . .	−1.527*	. . .
	(.44)	(.64)				(2.36)	
Expected prison term × post-*Simmons*	.032	.032	. . .	. . .	. . .	.112**	. . .
	(1.44)	(1.63)				(3.96)	
Constant	. . .	. . .	. . .	. . .	. . .	.876	.155
						(.88)	(.18)
Death sentence (1 = death, 0 = life)	. . .	. . .	. . .	. . .	.783**	. . .	. . .
					(3.24)		
Observations	176	176	176	176	176	177	177
Probability > *F*	.0094	.0146	.0005	.0016	.0012	.0015	.0001
Percent correct	77.9	76.7	77.3	77.3	78.5	73.3	68.5
Percent error reduction over naive model	24.6	20.5	21.8	21.8	26.6	42.3	32.3

SOURCE.—Juror interviews in South Carolina capital cases.

NOTE.—The dependent variable in models 1–5 is the juror's first vote. The dependent variable in models 6 and 7 is the final sentence. Absolute values of *t*-statistics are in parentheses. The signs on all the independent variables have been adjusted such that the presence or increasing strength of the independent variable correlates with a vote for death. The models account for the nonindependence of jurors who sat on the same case.

$^{+}$ $p < .10$.

* $p < .05$.

** $p < .01$.

shows that going from the blind model to our first model reduces the chances of an incorrect prediction by 24.6 percent.

2. Final Vote

Table 6's first five models try to explain the first vote; the last two try to explain the final one. Comparing the two sets of models shows that any effort to detect the influence of a juror's characteristics on how she votes should be careful to analyze her first vote and her final vote separately.

Some associations that materialize in the first-vote models fade or disappear in the final-vote models, and vice versa; other associations remain stable across all models. For example, race and religion play a statistically significant role in all of the first-vote models, but in all the final-vote models their significance becomes marginal or dissolves altogether.[86] In contrast, the length of time a juror thought the defendant would remain in prison if not sentenced to death appears to play only a minor role at the first vote but a much stronger one at the final vote.[87] The remaining associations were stable. The strength of a juror's support for the death penalty, the seriousness of the crime, and the defendant's remorse, all of which were significant in all or virtually all of the first-vote models, retained their significance in both of the final-vote models.

Overall, the facts of the case tend to exert a steady or growing influence as jurors move from the first vote through deliberations to their final one. Meanwhile, a juror's race and religion tend to lose significance. They are prominent and influential players at the first vote, but any direct influence

[86] Bowers, Steiner, & Sandys, *supra* note 9, at 199, also found a convergence of black-white voting patterns by the final vote. Although Bowers, Steiner, and Sandys report large black-white differences for the first vote on punishment, those differences are statistically insignificant by the final vote, even in the most racially charged category, cases involving black defendants and white victims.

[87] For example, the association between expected prison term and the juror's final vote in model 6 is large and statistically significant. An increase of 10 years in a juror's estimate of the defendant's prison term from a baseline of about 15–25 years translates into a .198 decrease in the probability of a death sentence. In order to arrive at this estimate we set the race variable to white, the religion variable to non–Southern Baptist, and all other independent variables to their mean values; we also assume that the case was decided before *Simmons*. This finding is consistent with other findings that suggest heightened concerns about the defendant's future dangerousness is one factor pushing undecided jurors to cast their final vote for death. See, for example, Bowers & Steiner, *supra* note 9, at 659 (concluding on the basis of analysis of nationwide CJP data that "[l]ate in sentencing deliberations, shifts in jurors' punishment stands are associated with their release estimates, whatever their first votes") (emphasis omitted); Garvey, The Emotional Economy of Capital Sentencing, *supra* note 9, at 67 (finding on the basis of analysis of South Carolina CJP data that "undecided jurors who finally voted for death were substantially more afraid of the defendant than any other group of jurors"); Sandys, *supra* note 9, at 1221 (speculating on the basis of narrative analysis of Kentucky CJP jurors that the "desire to avoid a hung jury and the fear of the defendant's early release" are the "primary concerns" of jurors "when consensus is lacking at the outset of the sentencing deliberations").

TABLE 7

PERCENTAGE OF FIRST VOTE FOR DEATH AND FINAL VOTE FOR DEATH

Percentage of Jurors Voting for Death on the First Vote	Number of Final Life Sentences	Number of Final Death Sentences	Percentage of Final Death Sentences	Total Number of Cases Within Percent Range
0–50	14	0	0	14
50–66	7	0	0	7
67–75	4	7	63	11
76–100	0	21	100	21

SOURCE.—Juror interviews in South Carolina capital cases.

they have on the final vote tends to yield as the deliberative process goes forward.

3. Switching Votes

Besides his or her own vote, we also asked each juror how the other jurors voted on the first ballot.[88] Only nine of the 53 juries were unanimous on the first vote—two on life and seven on death. Yet while most juries started out divided, few of them ended up divided, which is not surprising. Jurors are instructed to seek unanimity (and must attain it before they can impose a death sentence), and most manage to achieve it. But if juries start out divided and end up unified, a number of jurors must be switching votes, going from death to life, or life to death. Which raises the obvious question, Why does a juror switch?

Statistical models using our six familiar variables—race, religion, support for the death penalty, seriousness of the crime, remorse, and future dangerousness—are disappointing. The variables we found to have such power in explaining a juror's first and final votes have some power to explain why a juror switches votes, but less than we might have expected. In explaining why a juror switches votes, another variable—one not yet considered—tends to overshadow all the others.

Table 7 shows the number of cases that resulted in a final sentence of life and the number of cases that resulted in a final sentence of death as a function of the percentage of jurors who cast their first vote for death. The results are striking.

If less than two-thirds of the jurors cast their first vote for death, the final verdict was always life. On the other hand, if more than three-quarters cast their first vote for death, the final verdict was always death (assuming the jury does not deadlock).[89] The final sentence is uncertain only when the

[88] We averaged the responses of each juror who sat on the same case in order to arrive at an estimate of the percent of jurors who first voted for death.

[89] We estimate that few of the juries in our sample failed to reach a unanimous verdict on either life or death. See note 13 *supra*.

percentage of jurors casting their first vote for death lies between 67 and 75 percent. In this critical range, seven of 11 cases resulted in a death verdict; four resulted in life. But outside this narrow zone, the final result is predictable—all depending on the distribution of life and death votes after the first ballot. In effect, the first vote is often the last.[90]

We can put these figures in an even more dramatic light: A death verdict is close to guaranteed if the prosecution can persuade at least nine of the 12 jurors to cast their first vote for death. Conversely, a life verdict is close to guaranteed if the defense can persuade at least seven jurors to vote for life or at least say they are undecided. The tipping point is juror eight. If juror eight goes with the prosecution and the jury reaches unanimity, the result will be death; if juror eight goes with the defense, the result will be life.[91]

Looked at in another way, the initial majority almost always has its way. Of the 53 cases in the sample, 42 (79 percent) wound up with the first-vote majority controlling the final verdict. This basic picture differs between cases ending in life and those ending in death. Of the 14 cases in which the first-vote majority was for life, life was the final result in every case (100 percent). In contrast, of the 39 cases in which the first-vote majority was for death, death was the final result in 28 (72 percent). The difference—100 percent compared to 72 percent—is statistically significant ($p = .026$). Death verdicts are therefore relatively more difficult to orchestrate, even when the initial majority goes for death.

The number of jurors who cast their first vote for death is not the only factor that predicts the final verdict. We constructed a statistical model using several of our familiar facts about the jurors and the case as independent variables and the decision to switch from a first vote for death to a final vote for life as the dependent variable.[92] Table 8 shows the results.

Besides the first-vote majority, only two other variables appear to play a statistically significant role in explaining why a juror switches votes. First, the more serious the crime, the less willing a juror will be to switch from death to life; conversely, the less serious the crime, the more willing a juror will be to switch from death to life. Likewise, the more strongly a juror supports the death penalty, the less likely he will be to abandon a first vote

[90] Some CJP research also suggests that many jurors actually decide how they will vote on the defendant's sentence before the penalty phase even begins. See Bowers, Steiner, & Sandys, *supra* note 9, at 1529 ("One half of the capital jurors [in the CJP's nationwide data] take a stand on the defendant's punishment before . . . [the penalty phase begins, and] [m]ost who do so are absolutely convinced of their early stands and stick with them consistently thereafter.").

[91] The fate of cases with undecided first voters also depends on the breakdown of the first vote. Juries with undecided first voters and first votes of less than 69 percent for death always wound up imposing life sentences. Juries with undecided voters and first votes of 69 percent or more for death always wound up imposing death sentences. Twenty-two jurors report being undecided on the first vote.

[92] We constructed other models using combinations of other variables; the results do not change importantly from those presented in Table 8.

TABLE 8

PROBIT MODEL OF JURORS WHO SWITCH VOTES FROM DEATH TO LIFE

	Juror Switches Vote = 1
Black juror (1 = yes)	−.021
	(.67)
Southern Baptist juror (1 = yes)	.305
	(.95)
Support for death penalty (1–5 scale)	.600*
	(2.45)
Seriousness of the crime (1–4 scale)	−.570*
	(2.22)
Defendant's remorse (1–4 scale)	.172
	(.98)
Expected prison term (years)	−.130
	(1.24)
First vote (% voting for death)	−7.063**
	(5.08)
Constant	4.78**
	(3.04)

SOURCE.—Juror interviews in South Carolina capital cases.

NOTE.—The model accounts for the nonindependence of jurors who sat on the same case. Sample includes only jurors who first vote for death. The dependent variable equals one when the juror reports switching to a vote for life. Absolute values of *t*-statistics in parentheses. The number of observations is 102. Probability > F = .0010.

* $p < .05$.

** $p < .01$.

for death in favor of a final one for life; conversely, the less strongly a juror supports the death penalty, the more likely he will be to abandon a first vote for death in favor of a final one for life.[93] But apart from these two variables, none of the others we have examined—race, religion, remorse, or estimated prison term—appears to play any statistically significant part in a juror's decision to change her vote from death to life. The dominant factor remains the will of the first-vote majority.

C. *Accounting for Hindsight*

The interview methodology employed is vulnerable to at least one major limitation.Because jurors were interviewed after they had already cast their

[93] These effects emerge only in regression analysis and not in simple bivariate relations. As a variation on vote-switching models, we account for a possible selection problem. One can observe a switch from a first vote for death only if a juror has first voted for death. This fact creates a potential selection problem in modeling switching votes from death to life. Compare Wynand P. M. M. Van de Ven & Bernard M. S. Van Pragg, The Demand for Deductibles in Private Health Insurance: A Probit Model with Sample Selection, 17 J. Econometrics 229, 239 (1981) (describing the methodology used to correct a similar problem in a different context). A bivariate probit model (not reported here) that includes both the selection process (those who vote first for death) and the switching process (those who switch to life having first voted for death) causes the "seriousness of the crime" variable to become insignificant; in contrast, the first-vote majority and support for the

vote on the defendant's sentence, the risk exists that some jurors wittingly or unwittingly tailored their responses to fit their vote. For example, a juror might have told us she thought the crime was especially vicious or the defendant especially remorseless because she voted for death, and not the other way around.

Our principal finding is that a juror's race, religion, and how strongly she supports the death penalty influence the way in which she casts her first vote during the jury's penalty-phase deliberations. For a variety of reasons, we believe that this finding survives any risk that a juror tailored her responses to fit her vote.

For the first two variables—race and religion—the basis for our confidence is simple. We believe that little risk exists that a juror would falsely report her race or religion based on the sentence she voted to impose, not to mention the fact that a false report of her race would have been difficult (to say the least) in a face-to-face interview. Moreover, public opinion polls consistently show that white respondents support the death penalty more than black respondents; they also show that adherents of fundamentalist religions, like Southern Baptism, support the death penalty more than do nonadherents. It therefore makes sense that race and religion would also influence capital sentencing.

Of course, a black juror or Southern Baptist juror might falsely report how they first voted to accord with the perceived preferred position of their groups. This could lead to spurious first-vote racial and religious effects and could help explain these groups' relatively high rates of switching behavior. We cannot eliminate the possibility that jurors misstated their first votes because we have no data that allows directly checking one juror's first vote through the reports of other jurors. But we can study the matter indirectly. If jurors misstated their first votes and incorporated that information into their report of the jury's first vote, then we ought to observe systematic within-case racial and religious effects in the reports of the juries' first votes. We do not. For the 25 cases in which both blacks and whites report jury first votes, blacks report a higher percentage voting for death in 11 cases, whites report a higher percentage voting for death in eight cases, and they report the same percentage in six cases. The pattern is consistent with random error in recalling the first vote and is inconsistent with systematic deflation of first votes for death by black jurors. For the 21 cases in which both Southern Baptists and others report jury first votes, Southern Baptists report a higher percentage voting for death in eight cases, non–Southern Baptists report a higher percentage voting for death in six cases, and they report the same percentage in seven cases. Overreporting of first votes for death by Southern Baptist jurors thus

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death penalty remain significant. With respect to the effect of selection on the switching model, a measure of the correlation in the error terms in the selection and switching equations (often referred to as ρ) is insignificant. Similar selection models based on first votes for life with switches to death do not yield materially different results.

emerges in only eight of 21 cases, and underreporting occurs in six cases. We thus find no substantial evidence of systematic underreporting or overreporting of first votes. It remains possible that jurors falsely reported their own first votes but did not include that in their report of others' first votes. We do know that jurors' reports of case outcome are not a concern since the sentencing outcome was independently observed.

For the third variable—how strongly a juror supports the death penalty—the basis for our confidence is more complicated. Here the risk of hindsight bias is real. Some jurors who voted for death may have felt obliged to say, consistent with their vote for death, that they were strong supporters of the death penalty when in fact their support was not as strong as they said. No statistical technique can eliminate this possibility, but substantial evidence from a variety of sources suggests that the association between a juror's support for the death penalty and her first vote is not the product of hindsight bias alone.

First, model 5 reported in Table 6 includes the final sentence as an independent variable. If hindsight bias were operating, we would expect the addition of this control to reduce the significance of the relationship between a juror's support for the death penalty and her first vote; but all of the juror-level effects survive. We also constructed first-vote models (not reported here) similar to those in Table 6 but treating life cases and death cases separately. Although the reduced sample sizes decrease the chances of detecting statistically significant results, all of the coefficients have the same signs in both the life and death cases, which again suggests that the observed relationship between a juror's support for the death penalty and her first vote is not the product of hindsight bias.

Second, we also constructed ordered probit models (not reported here) of the variable used to measure a juror's support for the death penalty. These models included the juror's race, religion, socioeconomic status, and age, together with the seriousness of the crime and the defendant's remorse, as the independent variables, and support for the death penalty as the dependent variable. If a juror's reported support for the death penalty depended on her final vote, we would expect to find strong correlations between her level of support and both the seriousness of the crime and the defendant's remorse, each of which strongly correlates with the juror's final vote. But, in fact, no such correlations emerge.

Third, evidence outside our data and based primarily on mock jury studies also suggests that risk of hindsight bias is remote. One review of several such studies using different methodologies concluded that a "consistent and pervasive relationship [exists] between jurors' attitudes toward the death penalty and their propensities to acquit or convict in criminal trials."[94] The same review found that a person's attitude toward the death penalty influenced

[94] Ellsworth, *supra* note 6, at 58.

her evaluation of witness credibility, inferences that go beyond the evidence, and the value of the juror's personal standard-of-proof threshold for conviction.[95] All of these results are fully consistent with the relationship we find between a juror's support for the death penalty and her first vote.

V. Conclusion

Our primary aim has been to identify and isolate the individual characteristics that influence a juror's decision making in the penalty phase of a capital trial. One of the influences we detect—the extent to which a juror believes death is the right punishment for murder—operates from start to finish, influencing a juror's first vote as well as her final one. The other two—race and religion—operate only at the outset. They influence a juror's first vote but eventually get lost in majority rule.

White jurors are about 20 percent more likely to cast their first vote for death compared to black jurors, as are Southern Baptists compared to followers of other faiths. Similarly, jurors who believe that death is the only acceptable punishment for murder are about 13 percent more likely to cast their first vote for death compared to jurors who also believe that death is an appropriate—indeed, the most appropriate—punishment for murder, but not the only acceptable punishment.

Moreover, the first vote and therefore the factors that influence it are critically important. If three-quarters or more of a jury's members cast their first vote for death, death is always the final verdict (assuming the jury does not deadlock); if two-thirds or less vote for death, life is always the final verdict. The first vote is therefore often the final one. In the statistically average case in which the defendant's fate turns on a single vote, one more white juror, one more Southern Baptist, or one more juror with above-average enthusiasm for the death penalty, and the result will be death.

Our findings point to serious problems in the way death sentences are now imposed.

First, our findings identify yet another link between capital sentencing and race. Prior research has shown how the demographics of death row often depend on the race of the defendant and the race of the victim. When the defendant is black or the victim is white—and especially when the defendant is black and the victim is white—the sentence tends to be death.[96] Our analysis adds to this picture the race of the juror. Death sentences depend not only on the defendant's race, and not only on the victim's race, but on the juror's race as well. All else being equal, white jurors are more apt to vote for death than are black jurors. Moreover, because the majority tends to rule the final verdict, and because blacks are seldom in the majority on South Carolina

[95] See *id.*

[96] See Baldus *et al.*, *supra* note 74, at 1742–45 app. B.

juries (or juries in most other jurisdictions), majority rule usually means white rule.[97]

Second, our findings validate the instincts on which many prosecutors and defense lawyers have probably long relied. On the basis of our analysis, rational prosecutors should try to empanel jurors who are white and Southern Baptist; rational defense lawyers should try to empanel jurors who are black and who adhere to any faith besides Southern Baptism. But acting on these instincts and peremptorily excluding a prospective juror on the basis of nothing more than his or her race[98]—and possibly religion[99]—is unconstitutional. We doubt that the mechanisms on which the law now relies to deter these rational but unconstitutional instincts are adequate to the task.[100]

Third, our findings show that the difference between life and death often turns on the vote of jurors who believe death is the only acceptable punishment for murder. But anyone who holds this belief is legally disqualified from serving on a capital jury in the first place. They lack impartiality, and well-established constitutional principle entitles the defendant to strike them

[97] Compare Kim Taylor-Thompson, Empty Votes in Jury Deliberations, 113 Harv. L. Rev. 1261, 1295 (2000) (concluding on the basis of review of empirical literature that "[t]o the extent people of color serve on a jury, they may need the power . . . to push their fellow jurors to consider information that challenges their stereotypic assumptions . . . [, but] [u]nder majority rule . . . that power is eliminated").

[98] See Batson v. Kentucky, 476 U.S. 79, 97–98 (1986) ("The core guarantee of equal protection . . . would be meaningless were we to approve the exclusion of jurors on the basis of . . . assumptions[] which arise solely from the jurors' race."). *Batson*'s progeny include J.E.B. v. Alabama ex rel T.B., 511 U.S. 127, 129 (1994) (extending *Batson* to cover strikes made on the basis of gender); Georgia v. McCollum, 505 U.S. 42, 59 (1992) (extending *Batson* to strikes by defense lawyers); Edmonson v. Leesville Concrete Co., 500 U.S. 614, 618–19 (1991) (extending *Batson* to civil actions); Powers v. Ohio, 499 U.S. 400, 402 (1991) (extending *Batson* to claim raised by white defendant for strike exercised against a black juror). For evidence that both prosecutors and defense counsel use race as a criteria to strike jurors, see Baldus *et al.*, *supra* note 76, at 121–24.

[99] The Supreme Court has yet to address the application of *Batson* to peremptory challenges based on a prospective juror's religious affiliation. The lower courts appear split, compare Casarez v. State, 913 S.W.2d 468, 492–96 (Tex. Crim. App. 1994) (declining to extend *Batson* to religion), and State v. Davis, 504 N.W.2d 767, 767–68 (Minn. 1993) (same), with People v. Martin, 75 Cal. Rptr. 2d 147, 151 (Cal. Ct. App. 1998) (disagreeing "with the conclusions of the courts in Casarez and Davis that the rule of Batson v. Kentucky does not extend to religious discrimination"), as are the student commentators. Compare J. Suzanne Bell Chambers, Note, Applying the Break: Religion and the Peremptory Challenge, 70 Ind. L. J. 569, 570 (1995) (arguing that religion-based peremptory challenges are constitutional), with Amy B. Gendleman, Comment, The Equal Protection Clause, the Free Exercise Clause and Religion-Based Peremptory Challenges, 63 U. Chi. L. Rev. 1639, 1640 (1996) (arguing that religion-based peremptory challenges are unconstitutional). For an argument that religion-based peremptory challenges are unconstitutional under the First Amendment's Establishment Clause, see Gary J. Simson & Stephen P. Garvey, Knockin' on Heaven's Door: Rethinking the Role of Religion in Capital Cases, 86 Cornell L. Rev. (forthcoming July 2001).

[100] For criticisms of the Court's *Batson* doctrine making this point, see, for example, Sheri Lynn Johnson, The Language and Culture (Not to Say Race) of Peremptory Challenges, 35 Wm. & Mary L. Rev. 21, 88 (1993) (arguing for a "conception of jury discrimination [that] would only prohibit prosecutorial strikes aimed at eliminating person of the defendant's race from her jury, or reducing the number of such persons below half the number on the jury"); Charles J. Ogletree, Just Say No! A Proposal to Eliminate Racially Discriminatory Uses of Peremptory Challenges, 31 Am. Crim. L. Rev. 1099, 1116, 1116–31 (1994) (describing reforms that "could give *Batson* more practical effect").

for cause.[101] Yet many of these death penalty supporters still end up serving, and when they vote, they usually vote for death. We believe the law should do more to enforce the guarantee that the jurors qualified to deliver sentences of life or death are impartial ones.

APPENDIX

TABLE A1

ORDERED PROBIT MODELS OF JUROR'S FIRST VOTE

	Model 1	Model 2
Black juror (1 = yes)	−.800***	−.892***
	(3.159)	(3.045)
Female juror (1 = yes)	−.181	−.169
	(1.052)	(.969)
Socioeconomic status (1–3 scale)	−.141	−.167
	(1.147)	(1.366)
Age (years)	−.005	−.005
	(.654)	(.587)
Southern Baptist (1 = yes)	.717**	.544*
	(2.642)	(1.925)
Death sentence (1 = yes)	. . .	1.065***
	. . .	(4.775)
Probability > F	.0035	.0003

SOURCE.—Juror interviews in South Carolina capital cases.

NOTE.—The values for first vote are 1 = life, 2 = undecided, and 3 = death. The models account for the nonindependence of jurors who sat on the same case. The dependent variable is the juror's first vote. Absolute values of t-statistics are in parentheses. The number of observations is 184.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

[101] See Morgan v. Illinois, 504 U.S. 719, 729 (1992) ("A juror who will automatically vote for the death penalty in every case will fail in good faith to consider the evidence of aggravating and mitigating circumstances as the instructions require him to do.").

TABLE A2

DEATH PENALTY OPINIONS AND JUROR'S FIRST VOTE

	Strongly or Moderately Agree (%)	Slightly Agree or Disagree (%)	Strongly or Moderately Disagree (%)	*p*-Value	*n*
Wish we had a better way than the death penalty of stopping murderers	5	15	80	.230	178
The death penalty is too arbitrary because some people are executed while others serve prison terms for the same crime	6	8	86	.335	176
If the death penalty were enforced more often, there would be fewer murders	13	16	71	.094	168
Even convicted murderers should not be denied hope of parole someday, if they make a real effort to pay for their crimes	25	43	33	.000	171
Murderers owe something more than life imprisonment to society and especially to their victims	8	13	79	.604	171
Death penalty should be required when someone is convicted of a serious intentional murder	13	15	72	.004	169
Have moral doubts about the death penalty	21	49	30	.138	182
Persons sentenced to prison for murder in this state are back on the streets far too soon	7	19	74	.219	162
Defendants who can afford good lawyers almost never get the death penalty	15	30	55	.280	161

Source.— Juror interviews in South Carolina capital cases.
Note.— The *p*-values are based on Kendall's τ.

TABLE A3

DEATH PENALTY ALTERNATIVES AND JUROR'S FIRST VOTE

	No (%)	Yes (%)	*p*-Value	*n*
If murderers in this state could be sentenced to life without the possibility of ever being released on parole, would you prefer this as an alternative to the death penalty?	48	52	.084	149
If murderers in this state could be sentenced to life with absolutely no chance of parole and also required to work in prison for money that would go to the victims' families, would you prefer this as an alternative to the death penalty?	27	73	.477	153
If murderers in this state could be sentenced to life in prison with no chance of parole for 25 years and even then be eligible for parole only if they earned and paid a required amount of money to the families of their victims, would you prefer this as an alternative to the death penalty?	78	22	.000	162

Source.— Juror interviews in South Carolina capital cases.
Note.— The *p*-values are based on Fisher's exact test.