Trial Consulting: Jurors' and Attorneys' Perceptions of Murder

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This paper compares the results of a juror survey in a murder case to predictions of juror behavior made by public defenders experienced in murder trials. Respondents selected from the St. Louis City Circuit Court venire pool were given a summary of the facts in a first degree murder case, a jury verdict and sentence questionnaire, and an attitude and demographic questionnaire. Data analyses isolated correlates of verdict (guilty vs. not guilty), sentence (death vs. life imprisonment), and juror certainty. The Missouri Public Defender's Office used the results to assist in peremptory challenges in a murder trial. Although our analyses of the attorneys' predictions of juror responses identified more correlates of juror decisions than we found in the juror data, our results also indicated that the attorneys overlooked several discriminating factors. The usefulness of social science for trial preparation is discussed in light of these findings.

Trial attorneys are acutely attuned to the nuances of human behavior, which enables them to detect the minutest traces of bias or inability to reach an appropriate decision.[1]

Self-made men of the assertive type are to be shunned. Their attitude is always one of contempt for the defendant. They compare their status with his. They have not sympathy for him. He is a victim of his own weakness. The self-made man will send your client to the gallows or the chair without compunction.[2]

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1. R. Begam, *Voir Dire: The Attorney's Job*, 13 TRIAL 3 (1977), *quoted in* LAWRENCE S. WRIGHTSMAN, PSYCHOLOGY AND THE LEGAL SYSTEM 234 (2d ed. 1991).

2. Samuel S. Leibowitz, *quoted in* M. GILBERT, THE OXFORD BOOK OF LEGAL ANECDOTES 199 (3rd ed. 1987).

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Commentators sometimes cite the first quote as anecdotal evidence of attorneys' perceptions of self-efficacy for juror selection.[3] Although there are no law school courses that teach skills of successful *voir dire*, there exist in abundance folk formulas that lawyers use to guide juror selection.[4] In fact, there are a number of published books[5] and journal articles[6] that make predictions about juror behavior. Yet, a careful examination demonstrates inconsistencies in the substance of the folk formulas.[7] Further, empirical investigations have challenged the relationship between judgment confidence and judgment accuracy among lay persons and professionals in legal[8] and extra-legal settings.[9]

As the second quote suggests, litigators may overestimate the diagnosticity of juror characteristics and overestimate the strength of relationships between juror attributes and verdicts. Once such a link is identified (perhaps wrongly), it is easy to develop a cognitive justification[10] that inoculates the belief against disconfirming data.[11] The idiosyncratic nature of attorney intuition is demonstrated by the conflicting advice available to trial lawyers. Consider for example the issue of juror gender. While Darrow[12] recommends against female jurors in all cases, Heyl[13] suggests that female jurors will be favorable to male plaintiffs. Moreover, Wagner[14] offers a complicated set of tests to use when evaluating juror gender.

Armed with their knowledge of attorney uncertainty and the results of

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3. *See* Brian L. Cutler, *Introduction: The Status of Scientific Jury Selection in Psychology and Law*, 3 FORENSIC REP. 227 (1990). *See also* Soloman M. Fulero & Steven D. Penrod, *The Myths and Realities of Attorney Jury Selection Folklore and Scientific Jury Selection: What Works?*, 17 OHIO N.U. L. Rev. 229 (1990); LAWRENCE S. WRIGHTSMAN, PSYCHOLOGY AND THE LEGAL SYSTEM (2d ed. 1991).

4. For a full discussion, see Fulero & Penrod, *supra* note 3.

5. *See, e.g.,* FRED LANE, LANE'S GOLDSTEIN TRIAL TECHNIQUE (3d ed. 1984); W. WAGNER, ART OF ADVOCACY: JURY SELECTION (1988); W. JORDAN, JURY SELECTION (1980).

6. *See, e.g.,* R. E. Cartwright, *Jury Selection*, 13 TRIAL 29 (1977); B.E. Davis & R.E. Wiley, *Forty-Nine Thoughts on Jury Selection*, 34 D.C. B. J. 15 (1967); S.K. Jacobs, *Jury Selection Tips*, CAL. TRIAL L. ASS'N F., Dec. 1983, at 344.

7. *See* Fulero & Penrod, *supra* note 3; WRIGHTSMAN, *supra* note 2; Valerie Hans, *Jury Decision Making*, in HANDBOOK OF PSYCHOLOGY AND LAW 56 (D.K. Kagehiro & W.S. Laufer eds. 1992).

8. *See* Gary L. Wells & Donna M. Murray, *What Can Psychology Say About the Neil v. Biggers Criteria for Judging Eyewitness Accuracy?*, 68 J. APPLIED PSYCHOL. 347 (1983).

9. *See* Stuart Oskamp, *Overconfidence in Case-Study Judgments*, 29 J. CONSULTING PSYCHOL. 261 (1965); J. FRANK YATES, JUDGMENT AND DECISION MAKING (1990).

10. *See* Leibowitz, *supra* note 2.

11. *See* J. Klayman & Y.W. Ha, *Confirmation, Disconfirmation, and Information in Hypothesis Testing*, 94 PSYCHOL. REV. 211 (1987); R.B. Skov & S.J. Sherman, *Information-Gathering Processes: Diagnosticity Hypothesis-Confirmatory Strategies, and Perceived Hypothesis Confirmation*, 22 J. EXPERIMENTAL SOC. PSYCHOL. 93 (1986).

12. *See* Fulero & Penrod, *supra* note 3, at 232 (citing Darrow, *Attorney for the Defense*, 8 ESQUIRE 35 (1936)).

13. *See* Fulero & Penrod, *supra* note 3, at 232 (citing Heyl, *Selection of the Jury*, 40 ILL. B.J. 328, 340 (1952)).

14. *See* WAGNER, *supra* note 5.

juror surveys, social scientists have developed a thriving business assisting trial attorneys with case preparation.[15] In this paper we discuss the value of juror surveys as supplements to the knowledge that trial lawyers bring to *voir dire*. We designed an empirical investigation to measure the importance of the information surveys offer in light of trial attorneys' knowledge about the relationship between juror characteristics and likely case decisions (i.e., predeliberation verdicts). We approach the topic of scientific jury selection[16] by comparing the results of a juror survey to attorneys' implicit beliefs about juror behavior.

The literature contains lengthy discussions of the fit of social science research[17] with the strategic goals of litigation as well as with the legal requirements of challenges for cause[18] and peremptory challenges[19] in *voir dire*. Debates about the ethical issues associated with scientific jury selection are also published.[20] Among the positions offered are the conclusions that scientific jury selection is a moderately successful methodology capable of assisting attorneys in zealously advocating for their clients and that his amounts to an unethical advantage for the rich which undermines the interests of poorer litigants, and it is an ineffective trespass by social scientists into a system of proven effectiveness. As a result of this debate, the effectiveness of the juror survey as a tool for *voir dire* has become the topic of growing discussion and empirical research.

Early research examining the associations between juror characteristics and verdict tendencies found evidence of only weak to moderately sized relationships.[21] However, more recent studies report that juror characteristics

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15. *See* Cutler, *supra* note 3; Hans, *supra* note 7.

16. *See, e.g.,* Cutler, *supra* note 3; Hans *supra* note 7; J. Schulman et al., *Recipe for a Jury*, PSYCHOLOGY TODAY, May 1973, at 37-44, 77-84.

17. *See* JOHN MONAHAN & LAURENS WALKER, SOCIAL SCIENCE IN LAW: CASES AND MATERIALS (1990); WRIGHTSMAN, *supra* note 3.

18. Challenges for cause are strikes that attorneys make in the *voir dire* process in order to remove venire people who have demonstrated by their answers that they will not be able to be impartial evaluators of the facts in the case. *See* MONAHAN & WALKER, *supra* note 17. The attorneys must convince the judge that they have a reasonable case for bias before the court will dismiss a juror for cause.

19. Peremptory challenges allow the attorneys to exclude a venire person from serving on a jury with no stated reason and without permission from the judge. *See* Swain v. Alabama, 380 U.S. 202 (1965). Each side has a certain number of peremptory challenges that it may use to strike prospective jurors without explaining the logic to the court so long as they do not strike venire people for discriminatory reasons such as race. *See* Batson v. Kentucky, 476 U.S. 79 (1986). It is largely through the use of peremptory challenges that attorneys attempt to select jurors that are most likely to be sympathetic to their arguments.

20. *See* Michael J. Saks, *The Limits of Scientific Jury Selection,* 17 JURIMETRICS J. 3 (1976); R. Christie, *Probability v. Precedence: The Social Psychology of Jury Selection, in* PSYCHOLOGY AND THE LAW: RESEARCH FRONTIERS 157 (G. Bermant et al. eds., 1976); A. Etzioni, *Creating an Imbalance,* 10 TRIAL 28 (1974); Dennis P. Stolle et al., *The Perceived Fairness of the Psychologist Trial Consultant: An Empirical Investigation,* 20 L. & PSYCHOL. REV. 139 (1996).

21. *See* Cutler, *supra* note 3. *See also* Fulero & Penrod, *supra* note 3; Hans, *supra* note 7; Valerie Hans & Neil Vidmar, *Jury Selection, in* N. KERR & R. BRAY, THE PSYCHOLOGY OF

account for small but meaningful percentages of variance (4% to 31%) in criminal verdicts.[22] Further, as Penrod and Cutler point out, prediction formulas that explain as little as 5% of the variance in verdicts could have an appreciable impact on attorney success during *voir dire*.[23] While there has been much less research examining the effectiveness of juror surveys in predicting outcomes in civil cases, one study conducted by Goodman, Loftus, and Greene suggests that juror attitudes rather than juror demographic characteristics may be the best predictors of damage awards.[24] Studies of civil and criminal cases favor juror attitudes over demographic factors. However, these same studies qualify those conclusions by acknowledging that the types of juror attitudes that predict juror behavior may vary extensively across cases.

Similarly, studies of attorneys' intuitions about juror behavior indicate that attorney beliefs also vary from case to case. While Hayden, Senna, and Siegel found attorneys to be most interested in juror age, occupation, demeanor, gender, appearance, and residence when asked to select information they found valuable in *voir dire*,[25] Penrod found attorneys' judgments of similarities among jurors were based on attitudes toward legal technicalities, gender, ideological orientation, and age.[26] In another study, Tate, Hawrish, and Clark found no evidence that juror characteristics directly influenced attorneys' ratings of juror acceptability.[27] Finally, in a study of venire people whom attorneys selected or rejected, Padawer-Singer, Singer, and Singer found the samples to be substantially similar on a series of attitude questions, suggesting that the trial lawyers were unable to distinguish among the venire people.[28] In summary, it appears that attorney intuition, like empiri-

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THE COURTROOM 39 (1982).

22. *See* C.L. Cowan et al., *The Effects of Death Qualification Jurors' Predisposition to Convict on the Quality of Deliberation,* 8 L. & HUM. BEHAV. 53 (1984); REID HASTIE ET AL., INSIDE THE JURY (1983); J. Hepburn, *The Objective Reality of Evidence and the Utility of Systematic Jury Selection,* 4 L. & HUM. BEHAV. 89 (1980); Gary Moran & John C. Comfort, *Neither "Tentative" nor "Fragmentary": Verdict Preference of Impaneled Felony Jurors as a Function of Attitude Toward Capital Punishment,* 71 J. APPLIED PSYCHOL. 146 (1986); Gary Moran et al., *Jury Selection in Major Controlled Substance Trials: The Need for Extended Voir Dire,* 3 FORENSIC REP. 331 (1990); Steven D. Penrod, *Predictors of Jury Decision Making in Criminal and Civil Cases: A Field Experiment,* 3 FORENSIC REP. 261 (1990); C. Visher, *Juror Decision Making: The Importance of Evidence,* 11 L. & HUM. BEHAV. 1 (1987).

23. *See* Steven Penrod & Brian Cutler, *Assessing the Competence of Juries, in* I. WEINER & A. HESS, HANDBOOK OF FORENSIC PSYCHOLOGY 293 (1985).

24. *See* J. Goodman et al., *Matters of Money: Voir Dire in Civil Cases,* 3 FORENSIC REP. 303 (1990).

25. *See* G. Hayden et al., *Prosecutorial Discretion in Peremptory Challenges: An Empirical Investigation of Information Use in the Massachusetts Jury Selection Process,* 13 NEW ENG. L. REV. 768 (1978).

26. *See* Fulero & Penrod, *supra* note 3, at 241.

27. *See* E. Tate et al., *Communication Variables in Jury Selection,* 24 J. COMM. 130 (1974).

28. *See* A. Padawer-Singer et al., *Voir Dire by Two Lawyers: An Essential Safeguard,* 57

cal relationships between juror characteristics and verdict outcomes, varies broadly from fact pattern to fact pattern.

Our research was conducted to gather information to help answer three general questions about jury surveys and attorney beliefs about juror behavior: (1) In a specific capital murder case, can we identify demographic and attitudinal factors that correlate with juror verdict, sentence, and certainty?; (2) In the same case, can we identify specific demographic and attitudinal factors which attorneys believe to be predictive of verdict and sentence outcomes?; and (3) Are the factors identified in the attorneys' intuitive knowledge consistent with the empirical correlates of juror behavior?

We expected that the answers to these questions would provide an interesting and unusual perspective on the usefulness of scientific jury selection. We reasoned that while total or near total agreement between the two approaches would suggest that juror surveys are largely redundant and without much usefulness to litigators, significant areas of disagreement would attest to the potential value of juror surveys in increasing attorneys' abilities to predict during *voir dire* juror behavior at sentencing. We conducted two separate studies to examine these possibilities. In the first study, we presented the facts of a murder case along with verdict, attitude, and demographic questionnaires to ninety-six venire people. In the second study, we presented similar materials to a sample of eighteen public defenders and asked them to predict the responses of a sample of typical jurors.

STUDY 1

METHOD

Participants

Participants were ninety-six volunteers (paid five dollars each) from the venire panel at the St. Louis Circuit Court. Participants were individuals who were not selected to serve on a jury. Data from fourteen respondents were discarded because those people were unwilling to impose the death penalty and were therefore ineligible to serve on Missouri first degree murder cases.[29] Of the remaining eighty-two respondents, the average age was forty-three years old. Twenty-nine (35%) were men and fifty-three (65%) were women. Twenty-nine (35%) were African-American, while fifty-one (64%) were white and one (1%) indicated race as "other." Forty participants (49%) were married and forty-two (51%) were single, divorced, or widowed. All participants except two reported finishing high school, and many (24 or 29%) had at least attended some college classes.

JUDICATURE 386 (1974).

29.   *See generally* Lockhart v. McCree, 476 U.S. 162 (1986); Wainwright v. Witt, 469 U.S. 412 (1985); Witherspoon v. Illinois, 391 U.S. 510 (1968) (holding that removal for cause of jurors who are unwilling to impose death penalty is constitutional).

Materials

Each participant received a case summary and a follow-up questionnaire with sections that measured verdicts, sentences, demographics, general attitudes, and death imposition beliefs. The questionnaire items were drawn primarily from the Missouri Public Defenders' venire survey.[30] We relied heavily on questions which public defenders commonly use to select jurors in order to maximize the usefulness of our results for applied settings. We added several items to the survey that mock jury researchers have found useful in predicting juror behavior, but that were not found in the original public defender survey. There are no available data that describe the psychometric properties of the instrument because the survey consisted of a modified version of an applied tool constructed by the public defenders' office. However, two capital murder litigators reviewed the final form and agreed that it consisted of items commonly asked during *voir dire*. Moreover, they agreed that answers to the questions would be useful in selecting a jury from a venire panel.

Case Summary: The *State v. Evans*[31] case summary provided the facts in a first degree murder case. Defendant Charles Evans was a drug dealer who argued with another dealer, Sam Green, while trying to sell drugs in Green's neighborhood. Later in the day, Evans returned to Green's neighborhood with a loaded gun. A gun battle ensued during which Green grabbed a neighborhood child. Evans fired at Green but missed and shot the child. The child later died. At issue in the case was whether Evans fired with the purpose of killing Green, or whether he fired in self-defense.

Case Fact Questionnaire: The case fact questionnaire included twenty-one true/false statements of correct and incorrect case facts. Five of these items were comprehension checks used to test whether the respondents understood the case. The other items, not reported on, were used to assist the public defenders office to prepare for the *Jones* trial.[32]

Verdict Questionnaire: The verdict questionnaire presented definitions of first and second degree murder in accordance with Missouri Approved Jury Instructions.[33] Participants supplied guilty and not guilty verdicts as well as certainty ratings (1 = very uncertain to 5 = very certain). Participants who found the defendant guilty of first degree murder provided sentences (death or life imprisonment) and a certainty rating for the sentence.

Demographic Questionnaire: Respondents completed a demographic questionnaire (31 items) which included questions about themselves, their families, their habits, and their experience with the legal system. All ques-

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30. Missouri Public Defenders' Venire Survey (on file with author).

31. The case summary was modeled after the facts in a then active case, *State v. Jones*, 919 S.W.2d 12 (Mo. Ct. App. 1996). The names and locations in the case were changed to disguise the identity of the actual case.

32. *See id.*

33. MISSOURI APPROVED JURY INSTRUCTIONS (West 1981).

tions were written in forced choice format with most requiring a yes or no response.

Attitude Questionnaire: Participants evaluated fourteen attitude items providing answers ranging from 1 (strongly disagree) to 5 (strongly agree). The attitude questions pertained to the criminal justice system (e.g., Criminal punishments scare potential criminals so that they do not commit future crimes; Handguns should be controlled by federal laws).

Attitude toward the death penalty: The last page of the survey asked participants, "under any circumstance would you ever consider imposing the death penalty in any case?" If the participant answered no, his or her data were dropped from further analysis.

Procedure

Each participant received a packet containing the *State v. Evans* case summary followed by the five survey components. The participants were asked to read the case summary and to answer the questionnaires that followed.

Results

Reported below are findings for the verdict, sentencing, attitudes, and demographic sections of the questionnaire.[34]

Comprehension Check: The correct response rate for the factual comprehension checks ranged from 83 to 99% ($M = 90\%$), indicating that the venire participants paid close attention to the case facts and understood the summary.

Verdict: Of the eighty-one respondents who were death eligible jurors and who supplied a verdict, eighteen (22%) found Evans not guilty of first degree murder and sixty-three (78%) found him guilty. Contingency table and chi square analyses were completed for dichotomous demographic variables comparing the percentage of guilty and not guilty voting venire people for each demographic variable. Data were collapsed so that each contingency table was based on expected cell frequencies large enough to compute reliable chi square statistics. In addition, t-tests were performed on all metric variables comparing those participants who found the defendant not guilty to those who found the defendant guilty.[35] The results reported in Ta-

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34. Sample sizes may vary slightly from analysis to analysis because of missing data.

35. The authors recognize that the most powerful analysis for the type of data collected with the lowest probability of making a type I error is logistic regression analysis which would have treated each item from the survey as a predictor and verdict-sentence categories (not guilty of first degree murder, guilty with a life sentence, guilty with a death sentence) as a criterion variable. Partly because of the small number of participants and the large number of potential predictors (96 venire people answering 69 questions) and partly because several of the predictors were composed of multiple levels (i.e., political ideology - Democrat, Republican, & Independent) we decided that multivariate procedures were not feasible with this

ble 1 show that those jurors who had a tendency to find the defendant not guilty were likely to be highly educated, political independents (not Democrats—very few of the respondents were Republicans) who were not opposed to drinking alcohol. They were more likely to agree that poor people receive harsher criminal penalties than do people of average or higher incomes.

Table 1: First Degree Murder: Differences in Means and Percentages in Venire People's Responses

	Verdict					
	Not Guilty		Guilty			
Item	*Mean*	*N*	*Mean*	*N*	*t(df)*	*P*
Poor people receive harsher penalties*	4.06	18	3.43	63	2.36 (79)	.021
Highest grade of education**	5.67	18	5.01	63	2.11 (79)	.038

	Answer						
	True (Yes)		False (No)				
	NG (%)	*G (%)*	*NG (%)*	*G (%)*	*Chsq.*	*P*	*N*
Do you drink alcohol?	15(29)	37(71)	3(10)	26(90)	3.69	.055	81
Are you a Democrat***	7(39)	11(61)	41(65)	22(35)	3.98	.046	81

Notes: * agreement ratings 1 = strongly disagree to 5 strongly agree;
** 5 = some college, 6 = college graduate; *** most of the no answers are independents with few Republicans

data set. Instead we chose a series of univariate tests in which we admittedly increased the likelihood of type I errors and minimized the likelihood of type II errors. This approach provides the broadest array of potential verdict and sentence predictors possible. Items that were correlated are retained in the prediction list and not eliminated by the statistical solution that regression techniques use to solve multicolinearity problems. Eliminating some correlated predictors through a multivariate analysis satisfies statistical requirements but may eliminate the wrong correlate, that is, the factor that jurors actually focus on when making their decisions. The rationale for choosing this approach was to identify as many potential factors as possible that could be used by attorneys for making useful juror selections. We adopted this approach in order to maximize the likelihood that the public defenders in study two would select items that had some degree of empirical reliability. Further, even if the multivariate approach would have been useable in study one it would not have been useable in study two, in which we collected responses from only 18 public defenders. Comparison of results from studies one and two would have been compromised had we employed a multivariate approach with the study one data and a univariate approach with the study two data. In these and all analyses to follow, results are reported only for statistically significant relationships.

Certainty ratings of those venire people finding the defendant not guilty and those finding him guilty of first degree murder were analyzed with correlations (see Table 2) and t-tests (see Table 3).

Table 2: Correlations Predicting Venire People's Certainty in Not Guilty and Guilty Verdicts for First Degree Murder

Variable	r	N	P
Not Guilty Voters - Correlations with Certainty			
Criminals have too many rights	-.60	16	.012
Police harassment is a serious problem	-.52	16	.037
Dispensing just desserts is responsibility of the criminal justice system	-.49	16	.052
Age	.57	16	.022
Guilty Voters - Correlations with Certainty			
Punishments for crime - not severe enough	.40	63	.001
Poor living conditions cause violence	-.25	63	.052
Poor people receive harsher penalties	-.26	63	.030

Note: All variables except for age are measured on a 1 = strongly disagree to 5 = strongly agree scale. Age is measured in years. Certainty is measured on a 1 = very uncertain to 5 = very certain scale.

Table 3: Differences between Men and Women in Certainty for Not Guilty and Guilty Verdicts for First Degree Murder

Item	Men		Women		t (df)	P
	Mean	N	Mean	N		
Not Guilty Certainty	4.75	8	3.50	8	2.24 (14)	.042
Guilty Certainty	3.67	21	4.40	8	-2.00 (61)	.050

Note: Certainty is measured on a 1 = very uncertain to 5 = very certain scale.

Results of these analyses show that venire people voting not guilty were most certain in their decisions if they were older men, if they disagreed that criminals already have too many rights in our society, if they disagreed that police harassment is a serious problem, and if they disagreed that dispensing just desserts is the responsibility of the criminal justice system. On the other hand, those voting guilty were most certain in their decisions if they were women, if they agreed that punishment for crime is not severe enough, if they disagreed that poor living conditions cause violence, and if they disagreed that poor people receive harsher penalties.[36]

Sentencing. Of the sixty-two respondents who found the defendant guilty of first degree murder and supplied a sentence, thirty-seven (60%) imposed life imprisonment and twenty-five (40%) the death penalty. Once again, contingency table and chi square analyses were completed for dichotomous demographic variables comparing the percentage of .life and death sentencers for each level of each demographic variable. In addition, t-tests were performed on all metric variables comparing those participants who assigned life to those who imposed the death penalty.

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36. All these relationships, except the negative correlation between certainty with a not guilty verdict and disagreeing that police harassment is a serious problem, fit the direction expected. It is possible that this relationship is simply the result of a chance event: a type I error.

Table 4: Predicting Life in Prison and Death Sentences:
Differences in Means and Percentages

	Sentence					
	Prison		Death			
Item	Mean	N	Mean	N	t (df)	P
Criminals have too many rights	3.45	37	4.08	25	2.71 (60)	.009
Punishments are not severe enough	3.68	37	4.28	25	2.89 (60)	.005
Welfare recipients don't want to work	2.29	37	2.92	25	2.27 (60)	.027

	Answer						
	True (Yes)		False (No)				
	LF (%)	D (%)	LF (%)	D (%)	Chsq	P	N
Do you have children?	23 (52)	21 (48)	14 (78)	4 (22)	3.45	.063	62
Served on a civil jury?	5 (29)	12 (71)	31 (70)	13 (30)	8.54	.003	62

Note: items in the first panel are measured with agreement ratings;
1= strongly disagree to 5 = strongly disagree

These results are reported in Table 4. Those jurors who found the defendant guilty of first degree murder and who favored life imprisonment were more likely to be without children and more likely not to have served on a civil jury. They disagreed that criminals have too many rights, that punishments for crime are not severe enough, and that welfare recipients do not want to work.

One set of additional analyses was performed on the certainty ratings of those venire people assigning life in prison and imposing the death penalty. Responses were analyzed with correlations for metric variables and t-tests (or oneway analysis of variance) for dichotomous variables. Results indicated that participants who assigned life imprisonment were more certain of their sentence assignments if they came from families with higher income ($r=.33$, $n = 37$; $p = .044$) and agreed that punishments for crimes are not severe enough ($r = .44$, $n = 37$, $p = .007$). More certain of their life imprisonment sentences were people who had served on a criminal jury ($M = 4.58$, n

= 12) as compared to those who had not done so ($M = 3.76$, $n = 25$, $t(35) = 2.06$; $p = .047$), as well as people who had never been married ($M = 4.27$, $n = 15$), and those who were married ($M = 4.50$, $n = 16$) as compared to those who were divorced ($M = 2.17$, $n = 6$, $F(2,34) = 8.28$, $p = .001$). For those who assigned the death penalty, there were no significant correlations with certainty of sentence and the only significant t-tests discriminating between the groups had samples sizes so small as to make the statistics unreliable.[37]

Discussion

Results of the juror survey show some weak to strong predictors of ve-nire people's verdict decisions. The demographic characteristics of people who support a not guilty verdict or who were more certain of that verdict were: higher education (moderate strength), alcohol consumption (weak), lack of affiliation with the Democratic party (weak), older in years (moderate), and male (weak). The attitude variables supporting a not guilty verdict or certainty of that verdict were: agreement that poor people receive harsher criminal penalties (moderate), disagreement that criminals have too many rights (strong), disagreement that retribution is a primary responsibil-ity of the criminal justice system (moderate), and disagreement that police harassment is a serious problem (moderate).

We also found some weak to strong predictors of the sentencing deci-sion. The demographic characteristics of those who favored life imprison-ment or who were more certain of that sentence were: having no children (weak), never having served on a civil jury (strong), higher income (weak), having served on a criminal jury (weak), and never having been divorced (strong). The attitude variables supporting a life in prison sentence or cer-tainty of that sentence were: disagreement that criminals have too many rights (strong), disagreement that punishments are not severe enough (strong), and disagreement that welfare recipients do not want to work (moderate). It should be noted that while viewing punishments as being se-vere enough would seem to characterize not guilty voting jurors, those who voted guilty and favored a life sentence were less certain of their sentences if they agreed that criminal punishments were not severe enough. Thus, se-lecting venire people who were of the opinion that punishments were severe enough was a double edged sword. While those people might very well have favored a not guilty verdict, they would have been more easily per-suaded that life in prison was not the appropriate sentence, if despite their own inclinations the jury returned a guilty verdict.

We presented our findings to the Public Defender's Office for use in

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37. For all of these dichotomous membership variables, members of one of the demo-graphic groups showed zero variance on ratings of certainty, making tests of significance meaningless. The zero variance groupings were people who were union members, $n = 5$; those who served in the armed forces, $n = 4$; those who admitted trying drugs, $n = 7$; and those who had been witnesses at trial, $n = 3$.

voir dire in the case of *State v. Jones.*[38] The state used our results to help select the *Jones* jury and to structure the arguments in the defense. Although Jones was found guilty of first degree murder, he was sentenced to life in prison without the possibility of probation or parole.[39] While we feel confident that the public defender took seriously our recommendations, we are unable to determine empirically, how much influence our data had on the outcome of the case. Instead, we conducted a survey of other public defenders unfamiliar with the case to determine the overlap between our survey results and their intuitive predictions of juror behavior.

STUDY 2

METHOD

Participants and Procedure

Twenty-five research packets were sent to a list of trial attorneys in the Public Defender's Office who had experience trying first degree murder cases, but who were not involved in the *Jones* defense. Eighteen (72%) attorneys completed the surveys and returned them to a liaison in the office. The completed surveys were forwarded to our office with no identifying information.

Materials

The research materials we sent to the attorneys were similar to those we administered to the venire people. We sent to each attorney the same case summary that we administered to the venire panel participants along with a follow-up questionnaire with sections that measured verdicts, sentences, demographics, and general attitudes. However, the questionnaires were modified to measure the attorneys' predictions about the way in which jurors would respond to the case summary. First, the attorneys completed each question three times, once as they predicted a typical not guilty-voting juror would respond, once as a typical life sentence voting juror would respond, and once as a typical death-imposing juror would respond.[40] Second,

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38. *See supra* note 31.

39. *See* State v. Jones, 919 S.W.2d 12, 13 (Mo. Ct. App. 1996).

40. For example, consider the question, "What is your gender?" Public defenders were asked to answer this question as they thought each of the juror types (not guilty voting jurors, guilty voting death penalty-imposing jurors, and guilty voting life sentence-imposing jurors) would answer. Of the 16 attorneys who answered this questions, 100% ($n=16$) thought the typical death penalty voting juror would be male, 25% ($n=4$) thought the typical life sentence-imposing juror would be male, and only 19% ($n=3$) thought that the typical not guilty voting juror would be a man. Similarly, 16 public defender respondents supplied the ages of the three types of jurors. The age of the typical death penalty-voting juror was 46 years, the age of the typical life sentence imposer was 41, and the age of the typical not guilty voting

the attorneys supplied estimates of the numbers of jurors they expected would find the defendant not guilty, guilty with a life sentence, and guilty with a death sentence. Some of the demographic questions were eliminated from the attorney's survey to reduce the burden on the respondents and because it was unreasonable to expect accurate predictions.[41] In all other ways the survey was identical to the one used in Study 1.

Results and Discussion

The public defenders predicted that 10% of the death qualified venire pool would find the defendant not guilty, 39% would find guilty and assign life in prison, and 51% would find guilty and assign the death penalty. Juror self-reports demonstrated a somewhat different split; eighteen (22%) not guilty, thirty-seven (46%) guilty with life imprisonment, and twenty-five (31%) guilty with the death penalty. Thus, the public defenders overestimated the number of death imposing jurors. We analyzed the public defenders' predictions of typical (not guilty, life, and death) juror responses to each of the demographic and dichotomous variables with overall tests of significance and follow-up post hoc procedures.

For some of the dichotomous demographic variables data were collapsed into two category responses. For example, although the question, "What is your marital status?" allowed three responses: married, single, and divorced, we treated the answers supplied by the attorneys as either married or single (few answered divorced for any of the three verdict predictions). Three other questions were collapsed in this manner: religion (Catholic v. not Catholic - mostly Protestant), race (white v. other), and political party (Democrat v. not Democrat). We calculated the percent of public defenders who answered in one direction (e.g., What is the juror's gender? - percent male; Does the juror have children? - percent yes) and applied Cochran Q tests[42] ($p < .05$) to each variable to determine if these percentages were significantly different across the verdict condition (not guilty, life imprisonment, death sentence). Finally we conducted follow-up McNemar, two sample tests ($p < .05$) comparing each condition to the other two conditions, but only for those variables that showed significant Cochran Q coefficients. Listed in the top panel of Table 5 are all the dichotomous variables that the attorneys predicted would differentiate between not guilty and *either* life imprisonment *or* death penalty sentences.

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juror was 38.

41. These items were: age of children, juror and spouse's occupation, law enforcement officer, status of spouse, knowledge of people other than the juror who use illegal drugs, and have you been a witness at trial.

42. The Cochran Q test is a multiple sample, repeated measure test of percentages analogous to repeated measures analysis of variance. Unlike analysis of variance it does not make parametric assumptions and is therefore appropriate for dichotomous data sets with small sample sizes.

Table 5: Demographic Factors Predicted by Attorneys
to Distinguish Among Sentencing Decisions

Characteristics of Jurors Voting Not Guilty
The juror has been accused of a crime.
The juror has not served on a civil jury.
The juror has not served on a criminal jury.
The juror has tried illegal drugs.
The juror is not a law enforcement officer.*
The juror does not own a business.*
The juror has no children.
The juror is a democrat.*
The juror is not white.
The juror is female.
The juror is not married.*
The juror is liberal.[a]

Characteristics of Jurors Imposing Life
The juror has not served on a criminal jury.
The juror is not a law enforcement officer.
The juror is not white.
The juror is liberal.

Notes: 1) All factors in the top panel except those marked with an asterisk were predicted to distinguish the not guilty jurors from the life sentence and death penalty jurors. * Those marked with an asterisk were only predicted to distinguish the not guilty from the death penalty jurors. 2) [a] This factor was subjected to analysis of variance and all comparisons between the types of jurors were significantly different. 3) All factors in the bottom panel were predicted to discriminate between life imprisonment and death penalty jurors.

The language used to list the attributes favors the not guilty decision. Listed in the bottom panel are those factors that the attorneys predicted to discriminate between life sentence and death penalty jurors. The language used favors the life imprisonment sentence.

As Table 5 shows, the attorneys anticipated that many demographic factors would differentiate between not guilty and guilty verdicts as compared to life and death sentences. They predicted twelve demographic factors to separate the not guilty from the death imposing jurors and four of these to separate the not guilty voting jurors from the life sentencers. On the other hand, only four demographic factors were predicted to differentiate between the life and death sentencers. These data suggest that public defenders litigating murder cases may find it more difficult to select verdict-

sympathetic than sentence sympathetic jurors. That is, to select verdict sympathetic venire people the attorneys would need to evaluate a number of attributes that they believed were important discriminators. On the other hand these same public defenders would presumably rely on only four characteristics (whether the juror had previously served on a criminal jury, whether the juror was a law enforcement officer, race, and political ideology) to discriminate between those who would vote for death and those for life in prison. Although these data tell us very little about the validity of attorney judgments, they do suggest that attorneys could make the latter judgment with less effort than the former.

The attitude variables measured on a 1 (juror strongly disagrees) to 5 (juror strongly agrees) scale were analyzed with repeated measures analysis of variance using the Huyn-Feldt adjustment for dependent degrees of freedom. Mean agreement ratings were calculated for each of the three juror predictions and planned comparisons were conducted contrasting the not guilty condition to the other two conditions (life imprisonment and death sentence) and contrasting the two sentencing conditions with each other (life imprisonment v. death). Results of this analysis are presented in Table 6 which lists the attitude variables that the attorneys predicted would differentiate between the not guilty and the life sentence and death penalty jurors. Also indicated are the jurors predicted to most strongly agree and disagree with each statement.

The attorneys expected attitudes of jurors to be strong predictors of case outcomes. Although our data do not directly test this hypothesis, the stronger results in Table 6, as compared to those in Table 5, suggest that public defenders would find it easier to select jurors on the basis of attitudes than on demographic attributes and that they would be more certain of attitude based judgments.

Table 6: Attitudes Predicted by Attorneys to Distinguish
Among Sentencing Decisions

Criminals have too many rights.*
Punishments are not severe enough.*
Punishments deter future crime.*
Violence is caused by poor living conditions.
Gang violence results from racial injustice.
Punishment removes offenders from the street.*
Police harassment is a serious problem.
People on welfare don't want to work.*
Poor people receive harsher punishments.
The system should give criminals what they deserve.*
Blacks receive harsher criminal penalties.
Handguns should be controlled by federal law
A child's life is worth more than a dealer's life.*
Illegal drugs are the no. 1 U.S. problem.*

Notes: 1) Attorneys predicted those statements with asterisks to be agreed upon by death penalty sentencing jurors and those without asterisks to be agreed upon by not guilty sentencing jurors. For all factors, agreement rates for life imprisonment sentencers were predicted to lie in the middle of the other conditions. 2) Agreement rates predicted for not guilty and guilty jurors (life imprisonment and death sentencers combined) were significantly different for all attitudes and agreement rates separating life and death jurors were significant for all attitudes except "Punishment removes offenders from the streets" and "Illegal drugs are the no. 1 U.S. problem".

General Discussion

We return to the three general questions we asked about jury surveys and attorneys' beliefs about juror behavior. First, by conducting an empirical survey in which we presented the facts of a case and attitude and demographic questionnaires to a sample of representative eligible jurors, we were able to identify factors that correlated significantly with verdict decisions, sentencing decisions, and certainty about those decisions. We used a representative sample of venire people, presented the facts of an active case, and were able to identify some moderate as well as relatively strong predictors of initial juror positions. We expect that a jury selected by defense counsel using the appropriate demographic and attitudinal characteristics would tend to be pro-defense. While our results favor attitudes over demographic predictors as predictors of juror behavior, any mathematical or subjective formula predicting juror outcome, similar to the ones discussed by Penrod and

Cutler,[43] would likely need to include some of each type of variable. Although any attempt to suggest the effectiveness of such an equation in predicting actual verdicts and sentences in cases like the one we used can only be based upon speculation, we suspect that in cases in which the fact patterns match closely the prosecutions' theories of the offense, juror predispositions will be of limited value.[44] However, in other cases in which the facts do not closely match the prosecutions' theories, juror attributes, attitudes and beliefs may be useful in predicting outcomes. In any case, we think that scientific or systematic jury selection can help an attorney eliminate jurors who favor the opposition at the beginning of the trial. In trials with ambiguous fact patterns, systematic jury selection may contribute meaningfully to the outcome of litigation.

Second, analyses of public defenders' predictions of the responses of typical not guilty voting jurors, life sentence imposing jurors, and death sentence imposing jurors demonstrated that the attorneys hold many strong expectations about the demographic and attitude attributes of jurors. In fact, we found most of the questions that made up the questionnaire in some way differentiated the attorneys' perceptions of typical not guilty, life, and death-imposing jurors. Thirdly, the public defenders over-estimated the absolute number of death sentencing jurors and they were too liberal in selecting criteria to use in placing prospective venire people into each category. Although these data strongly suggest that attorneys over-identify factors to use in selecting a jury, it is possible that demand characteristics offer another explanation for our results. It is possible that public defenders assumed that the variables we asked about were important predictors simply because we included them in the jury survey. In order to rule out this possibility, additional data should be collected using different methodologies that do not present specific demographic and attitudinal factors. Perhaps a further study would allow attorneys the opportunity to identify predictors of juror behavior in an open ended format. Nonetheless, the fact that our instrument was based, in large part, on a jury survey commonly employed by the public defender's office reduces the meaningfulness of this demand characteristic. The items on the survey were selected by attorneys themselves and not by researchers. Therefore, even if the items enjoyed a salience effect, they did so because public defenders commonly use them to assist during *voir dire*.

Of course, we are unable to determine whether public defenders conducting an actual *voir dire* would eliminate some of the factors that did not differentiate among types of actual jurors. It is possible that when examining an actual venire panel, attorneys would change their expectations and rely on a smaller number of criteria for juror selection. However, without the assistance of a jury survey it is possible, indeed likely, that the attorneys

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43. *See* Penrod & Cutler, *supra* note 23.
44. *See* Visher, *supra* note 22.

would eliminate the wrong variables and would base their selections on faulty assumptions. Our research suggests that the initial expectations of at least our sample of public defenders were over-inclusive. For example, in differentiating not guilty voting from guilty voting jurors, the public defenders chose as significant demographic attributes a number of factors that did not differentiate among the actual jurors' verdicts or correlate with certainty of their verdicts (e.g., marital status, political ideology, race, attitudes toward blacks, attitudes toward handgun control, and attitudes toward illegal drugs).

At the same time few, but some, of the attorneys' responses were under-inclusive. For example, although jurors who were most likely to favor life imprisonment over the death sentence had no children, this factor was not used by the public defenders to discriminate between these groups. Further, the status of parenthood distinguished between the not guilty and guilty voting jurors, yet the attorneys did not recognize it as useful in separating life imprisonment from death sentencing jurors.

In a frequently cited study, Zeisel and Diamond examined *voir dire* success rate in a small sample of cases.[45] Although defense attorneys were slightly more successful than prosecuting attorneys, neither group demonstrated more than minimal success at eliminating unsympathetic jurors, and both types of lawyers show high degrees of variability from trial to trial in successful *voir dire*. Our data did not test the overall effectiveness of juror surveys for improving jury selection.[46] Nonetheless, our data suggest that one factor which may limit the success of attorneys in *voir dire* is the largely over-inclusive nature of attorney expectations of juror behavior. Perhaps the most significant contribution that juror surveys may make to *voir dire* is to reduce the number of criteria available in memory to attorneys when forming peremptory challenges. Armed with the results of such surveys, attorneys may be more able to detect true juror bias[47] and avoid over interpreting juror attributes. We conclude that a survey presenting the facts and law of an active case to a representative sample of eligible jurors can help attorneys to select criteria most likely to discriminate between hostile and sympathetic jurors.

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45. *See* H. Zeisel & S.S. Diamond, *The Effect of Peremptory Challenges on Jury and Verdict: An Experiment in a Federal District Court*, 30 STAN. L. REV. 491 (1978).

46. *See* Cutler, *supra* note 3; Fulero & Penrod, *supra* note 3; Hans, *supra* note 7.

47. *See* Begam, *supra* note 1.