Psychology, Public Policy, and Law
2001, Vol. 7, No. 3, 622–727

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1076-8971/01/$5.00 DOI: 10.1037//1076-8971.7.3.622

JURY DECISION MAKING
45 Years of Empirical Research on Deliberating Groups

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This article provides a comprehensive review of the empirical research on jury decision making published between 1955 and 1999. In total, 206 distinguishable studies involving deliberating juries (actual or mock) were located and grouped into 4 categories on the basis of their focal variables: (a) procedural characteristics, (b) participant characteristics, (c) case characteristics, and (d) deliberation characteristics. Numerous factors were found to have consistent effects on jury decisions: definitions of key legal terms, verdict/sentence options, trial structure, jury–defendant demographic similarity, jury personality composition related to authoritarianism/dogmatism, jury attitude composition, defendant criminal history, evidence strength, pretrial publicity, inadmissible evidence, case type, and the initial distribution of juror verdict preferences during deliberation. Key findings, emergent themes, practical implications, and future research directions are discussed.

The petit jury is a well-known component of the U.S. legal system that needs little introduction. More than 150,000 jury trials take place each year in the United States (Landsman, 1999; Saks & Marti, 1997), and tens of thousands more in other countries throughout the world. Hundreds of thousands of U.S. citizens serve on juries each year and a sizable percentage of the population will do so at some point in their lives. The jury system has been around for hundreds of years and it is considered a cornerstone of democracy (Abramson, 1994). Despite frequent criticism (see Penrod & Heuer, 1998, for a review), it has proven to be a remarkably resilient institution.

Although juries have been used in the United States since its founding, scientific interest in jury decision making is a relatively recent phenomenon. Isolated studies were conducted before World War II (e.g., Weld & Danzig, 1940), but systematic research on juries did not begin until 1953 and the initiation of the Chicago Jury Project. This multiyear effort was undertaken by a team of researchers at the University of Chicago and financed by two large grants from the Ford Foundation (Ellsworth & Mauro, 1998). The broad and (at the time) revolutionary goal of the project was to use social science methods to study legal phenomena (Broeder, 1958). One arm of the project, led by Harry Kalven and

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We thank Brian Dille, Chantal Mees Koch, and Jami Wolfe for assistance with data collection and coding, and Julie Devine for her editorial assistance. We are grateful to James Davis and Garold Stasser for supplying social decision scheme data for several studies.

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Hans Zeisel, gathered data on actual juries by surveying judges and attorneys and interviewing ex-jurors. A second arm conducted experimental studies with mock juries after the audiotaping of several jury deliberations in federal district court in 1955 drew a storm of protest and led the federal government and most states to ban access to the jury room.

The Chicago Jury Project generated a great deal of data and spawned numerous publications in the late 1950s and early 1960s. The most well-known and influential report stemming from the project is Kalven and Zeisel's (1966) book entitled *The American Jury*, which reported the results of a massive field study comparing actual jury verdicts with the verdicts favored by trial judges in 3,500 civil and criminal jury trials. They found that judges and juries agreed on the appropriate verdict in 78% of the jury trials examined, with juries being more lenient than judges in 19% of the trials and more severe than judges in just 3% of the cases. However, to identify the source of these discrepancies, Kalven and Zeisel also conducted extensive postdeliberation interviews with jurors from 225 trials to reconstruct the distribution of verdict preferences on the first ballot during deliberation. When the distribution of verdict preferences was compared with final verdicts, Kalven and Zeisel discovered one of the most robust and widely replicated findings in jury research: The verdict preferred by the majority of jurors on the first ballot was the jury's final verdict over 90% of the time.

After the Chicago Jury Project ended, research on jury decision making remained dormant until the early 1970s. Jury research then began in earnest following several controversial Supreme Court decisions upholding the use of juries with fewer than 12 persons as well as nonunanimous verdicts (e.g., *Apodaca, Cooper, & Madden v. Oregon,* 1972; *Colgrove v. Battin,* 1973; *Johnson v. Louisiana*, 1972; *Williams v. Florida,* 1970). Around that time, J. H. Davis (1973) introduced the *social decision scheme* (SDS) framework, a stochastic representation of the way in which individual preferences are translated into a collective choice within groups. Applied to juries, SDSs probabilistically relate the initial distribution of juror verdict preferences to final jury verdicts. They can be inferred by identifying the probabilities associated with each verdict alternative for all possible preference distributions as well as tested by generating expected verdict distributions and determining how closely they correspond to actual verdict distributions.

Sparked by the implications of the Supreme Court decisions and the structure provided by the SDS framework, a good deal of empirical work in the late 1970s focused on the effects of jury size, assigned decision rule, and the SDSs operating in juries. In the 1980s, the amount and diversity of jury research increased rapidly, particularly with regard to juror demographic characteristics, juror dispositional characteristics, the effects of trial structure, and plaintiff success rates and damage awards in civil jury trials. This expansionistic trend continued into and through the 1990s.

Now, once again, the scientific spotlight is on groundbreaking research being conducted in the field with actual juries. One such effort, the Capital Jury Project (CJP), represents a massive field study of jury decision making in capital trials that involves a consortium of researchers in 15 states (Bowers, 1995). In each participating state, the goal of the project is to collect information on an equal number of trials ending in death sentences and life without parole sentences (20

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or 30 trials in total, depending on when the state's researchers became involved). The data are gathered through extensive structured interviews with four randomly selected jurors from each capital trial. Various preliminary reports have already been released (e.g., Eisenberg, Garvey, & Wells, 1996; Sundby, 1997), and more extensive reports containing analyses of data from multiple states are beginning to emerge as well (e.g., Bowers, Sandys, & Steiner, 1998). The Arizona Jury Reform (AJR) study is a second large-scale field project that focuses on the impact of a controversial jury reform. In 1995, the Arizona Supreme Court allowed jurors to discuss the evidence in their cases while trials were still in progress and permitted the effects of the practice to be formally assessed in the context of a true field experiment with random assignment. As with the CJP, preliminary findings based on portions of the data have already been published (e.g., Hans, 1998; Hans, Hannaford, & Munsterman, 1999) and more comprehensive reports are forthcoming.

More than 20 years have elapsed since the last comprehensive review of the empirical literature on jury decision making. In 1977, both Gerbasi, Zuckerman, and Reis (1977) and J. H. Davis, Bray, and Holt (1977) published reviews of the empirical literature on jury decision making at a time when the literature was small enough to include both juror-level and jury-level studies. Although numerous excellent reviews have been offered since then, no review of the entire empirical research on deliberating juries has been undertaken. Those reviews that have been conducted in the last 25 years have either focused broadly on psychology and the law (e.g., J. H. Davis, 1989; Ellsworth & Mauro, 1998) or selected aspects of jury decision-making research (e.g., Costanzo & Costanzo, 1992; J. H. Davis, 1984; King, 1993; Lieberman & Sales, 1997; Saks & Marti, 1997). A comprehensive review affords the opportunity to consolidate what has been learned and consider the collective implications for both science and practice. Therefore, the purpose of this article is to provide a comprehensive summary and review of the published literature on deliberating juries. Following this, we identify several themes, discuss the practical implications of the findings, and highlight areas for future research.

Review of Empirical Research on Jury Decision Making

Conceptual Framework

Numerous theoretical models have been offered in the last 50 years to further our understanding of jury behavior and predict jury outcomes. Several approaches have been taken to explain how individual jurors process trial-related information and arrive at their preferred verdicts, including Bayesian probability, algebraic weighing, stochastic choice, and cognitive processes (Hastie, 1993; Pennington & Hastie, 1981; Penrod & Hastie, 1979). The first three types possess advantages associated with formal expression (i.e., precision, quantifiable, testable) but do not correspond well to the subjective experience reported by jurors (Ellsworth & Mauro, 1998; MacCoun, 1989; Pennington & Hastie, 1981). Instead, the most widely adopted approach to juror decision making is the "story" model, wherein jurors attempt to assemble the evidence into a coherent whole that is consistent with the facts of the case and makes sense given their existing knowledge (Hastie, 1993; Hastie, Penrod, & Pennington, 1983). In contrast to these cognitive ap-

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proaches, most jury-level models have sought to predict jury outcomes (e.g., verdicts) from a small, highly selected set of input variables. Some of these models have involved attempts to identify relationships between juror or population characteristics and jury outcomes (e.g., J. H. Davis, 1973; Gelfand & Solomon, 1973); others have focused on deliberation processes (Crott & Werner, 1994; Kerr, 1981; Stasser & Davis, 1981). Several models based on computer simulations have also been offered (Boster, Hunter, & Hale, 1991; Penrod & Hastie, 1980; Tanford & Penrod, 1983). Of these alternatives, the SDS framework offered by J. H. Davis (1973) has been used most frequently and has been extended to model jury-level shifts in the preference distribution during deliberation as a function of individual certainty (Stasser & Davis, 1981) as well as previous distributional states (J. H. Davis, Stasser, Spitzer, & Holt, 1976; Kerr, 1981, 1982; Stasser & Davis, 1981).

Because of the problem-driven nature of most jury research, however, no overarching theoretical model has emerged around which to structure a comprehensive review of the broad empirical literature. Therefore, a "bottom-up" approach was taken here that involved sorting the empirical literature by topic and then clustering those topics into four broad categories on the basis of the nature of their focal variables: (a) procedural characteristics, (b) participant characteristics, (c) case characteristics, and (d) deliberation characteristics. Procedural characteristics are defined as institutional parameters related to jury functioning (e.g., jury size, jury instructions, juror involvement during the trial, the number of jurors needed for a quorum, etc.). Participant characteristics correspond to individual difference variables associated with jurors, defendants, victims/plaintiffs, judges, and attorneys (e.g., demographic variables, personality traits, experience, attitudes, and courtroom behaviors). Generally speaking, these characteristics have no probative value and should ideally not influence jury verdicts. Case characteristics refer to variables associated with specific trials (e.g., case type, strength of the evidence, specific charges, etc.). Finally, deliberation characteristics include any and all facets of juror interaction (e.g., the distribution of initial juror preferences, polling mechanics, interpersonal influence and participation, and the content of discussion) that take place in the deliberation room.

Literature Search

The goal of this study was to provide a comprehensive review of published empirical research on jury decision making. The decision was made to focus on published research because unpublished studies vary considerably in quality and are often difficult, if not impossible, to acquire. We also chose to limit the review to empirical research involving deliberating juries for two reasons: (a) the empirical literature on juror decision making is extremely large and nearly impossible to review comprehensively, and (b) deliberation is a fundamental aspect of jury decision making (Bray & Kerr, 1979; Diamond, 1997). Of note, the following were included when deliberating groups were involved: (a) studies that analyzed data exclusively at the juror level (e.g., predeliberation and postdeliberation verdict shifts), and (b) studies that involved an experimental confederate in the jury. Many mock jury studies included deliberating groups but did not conduct or report jury-level analyses, typically because of poor statistical power associated with small samples or low variability in the jury verdicts. These studies were

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included on the presumption that they still might provide useful information about some aspects of the deliberation process. A handful of studies involved the use of confederates in deliberating mock juries; these studies were included when it did not appear that deliberation outcomes were determined directly by the confederate's behavior. When two or more publications were based on the same data, they were treated as one study to avoid reporting duplicate findings or "overweighting" data that had been analyzed multiple times. When we found reports with overlapping data, we decided to treat one as the lead publication for the purpose of creating and ordering annotated summaries. In choosing a lead publication, we considered the scope of the issues examined and the size of the sample involved as well as the comprehensiveness and sophistication of the analyses reported. Sometimes our choice was the first in a series of related reports, other times it was the last; admittedly, however, these decisions were somewhat subjective. Finally, the following kinds of studies were excluded from this review: (a) pure computer simulations, (b) archival studies in which jury decisions could not be uniquely identified because bench trials were also involved, and (c) laboratory studies that manipulated the appearance of juror interaction but in which no interaction actually took place.

Three converging methods were used to identify relevant studies: (a) computer-assisted search of several databases (e.g., Lexis-Nexis, PsycInfo) using keywords such as "jury," "decision making," "verdict," "mock," "award," and "deliberation"; (b) manual searches through the contents of the following journals for the last 10 or more years: *Journal of Applied Psychology*, *Journal of Applied Social Psychology*, *Journal of Experimental Social Psychology*, *Journal of Personality and Social Psychology*, *Law and Human Behavior*, *Judicature*, *Law & Society Review*, *Law & Psychology Review*, and *Personality and Social Psychology Bulletin;* and (c) inspection of the reference lists of recent literature reviews and selected empirical studies. Any published report involving deliberating juries was copied, read, and abstracted regardless of its domain, although the overwhelming majority came from books or journals devoted to psychology or legal issues. As noted above, our explicit goal was to provide a comprehensive review of the published literature on jury decision making based on deliberating groups. However, due to the lengthy time frame covered, the multidisciplinary nature of the subject, and the many journals in which relevant jury research is published, a few relevant studies have no doubt been omitted.

Four primary methodologies have been used by researchers to study jury decision making: (a) mock jury experiments involving simulated trials, (b) post-deliberation interviews with, or surveys of, ex-jurors, (c) analyses of jury verdicts obtained from archival sources, and (d) field studies or experiments involving real juries. Although the mock jury paradigm has been used most frequently, each approach clearly has its strengths and weaknesses. Mock jury studies allow a small number of focal variables to be examined with a high level of control over extraneous influences, and they also allow direct access to the deliberation process. However, these advantages come at a cost in terms of structural verisimilitude, which sometimes calls into question the relevance of their findings to actual juries. Field studies involving actual juries are obviously more realistic and their results more generalizable, but they require extensive cooperation from one or more courts, tend to involve small samples as a result, and the interpretation of

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their findings is often plagued by confounding variables. Surveys or interviews of ex-jurors can serve as a rich source of data on real deliberations, but these methods are limited by the cognitive biases and limitations of respondents, which can make it difficult to reconstruct an accurate picture of what happened during deliberation. Finally, archival analyses also have the benefit of using real juries and often attain reasonable sample sizes, but the variables that can be examined are limited to those maintained in court records, and there are again confounding case differences that complicate the interpretation of findings. Ideally, then, for any given topic, multiple approaches will be used and findings will be consistent across methodologies.

Tables 1–5 present brief summaries of each empirical study that has involved deliberating groups from 1955 to 1999. Tables 1–4 offer summaries of studies that focused solely on procedural characteristics (Table 1), participant characteristics (Table 2), case characteristics (Table 3), and deliberation characteristics (Table 4), respectively. Table 5 provides summary information for studies that examined two or more of the above types of characteristics. In total, 206 relevant, distinguishable empirical studies were found in over 250 separate publications. Of the 206 studies, 136 involved mock juries (66%), whereas 70 collected data from actual juries: 40 through the analysis of archival data (19%), 14 through retrospective surveys or interviews with ex-jurors (7%), 13 using field studies or experiments (6%), and 3 with a combination of two methodologies (1%). With regard to court system, 26% (53 studies) examined jury behavior in civil trials, whereas another 5% (10 studies) included both criminal and civil juries. As for focal variables, 53% (110 studies) included one or more participant characteristics, 49% (101 studies) studied one or more case characteristics, and 31% (63 studies) examined one or more procedural characteristics, whereas only 17% (34 studies) addressed deliberation variables. Using the first published report as a temporal marker, 4 studies were published in the 1950s (2%), 6 studies in the 1960s (3%), 43 studies in the 1970s (21%), 73 in the 1980s (35%), and 80 in the 1990s (39%). Thus, almost all of the research on deliberating juries has taken place in the last 30 years.

Focusing on the mock jury studies, most involved students or jury-eligible participants from the surrounding community, although a few were able to use individuals who showed up for jury duty but were not seated on a jury or actual jurors serving an extended term. Most studies conducted before 1985 used written stimulus materials, whereas the majority of studies since then have used audiotaped or videotaped stimulus materials (or some combination of the two). The time allowed for juries to reach their verdicts has varied greatly (range = 7 min to unlimited), with the typical study allowing 30 min. In keeping with the growing concerns over realism, these limits have increased somewhat over time.

At this point, we turn to an examination of the empirical literature based on the four categories noted above. In each section, an overview of the literature is provided, key studies are described, and salient findings are noted. Where appropriate, evaluative statements are offered regarding the existence of effects; in many cases, these statements are necessarily tentative.

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Table 1
Summaries of Empirical Research on Procedural Characteristics, Ordered by Date (1955–1999)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Zeisel & Callahan (1963)	K = 186 N = 12 Field	Civil; US (IL); Personal injury	PROC9	TIME, L	Bifurcation of the liability and damage components of trial associated with 31% fewer liability judgments against plaintiff (58% vs. 27%) and shorter deliberation times (20 min on average). However, slightly higher settlement rate occurred with bifurcated trials.
Institute of Judicial Administration (1972)	K = 391 N = 6/12 Archival	Civil; NJ	PROC7	L	No impact of jury size on plaintiff success rate, but larger juries tended to handle more complex cases, and their mean damage awards were 3× greater than smaller juries.
Bermant & Coppock (1973)	K = 128 N = 6/12 Archival	Civil; WA	PROC7	L	No difference in plaintiff success rate as a function of jury size.
J. Kessler (1973)	K = 16 N = 6/12 Students	Video; >53 min; Auto negligence	PROC7	CONT, PART, TIME, L	No impact of jury size on verdicts. Smaller juries tended to deliberate longer and had greater participation rates.
Buckhout et al. (1977)	K = 20 N = 6/12 Actual	Video; min = ?; Murder^{LIC}	PROC6 PROC7	G	There were 3× more convictions in 5/6 majority juries compared with unanimous juries; unanimous juries hung much more often. More variability on convicting charge for smaller juries and non-unanimous juries.
J. H. Davis et al. (1975)	K = 72 N = 6/12 Students	Audio; 30 min; Rape	PROC6 PROC7	TIME, POLL, SDS, G	Deliberation produced substantial leniency effect. No impact of decision rule or jury size on verdicts; no jury convicted. Unanimous juries generally took more polls and deliberated longer in 12-person juries. Most commonly observed decision scheme was "2/3 majority otherwise hung."
Kerr et al. (1976)	K = 101 N = 6 Students	Video; 30 min; Rape	PROC1 PROC6	SDS, TIME, G	Majority-rule juries more likely to convict, less likely to hang, and took fewer polls. Likelihood of acquittal greatest when "reasonable doubt" was defined broadly as opposed to narrowly or not defined. Evidence for a 5/6 majority rule SDS.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Nemeth (1977)	$K^1 = 37$ $N^1 = 6$ $K^2 = 14$ $N^2 = 6$ Students	[1]Booklet; 120 min; Murder [2]Live; min = ?; Various	PROC6	CONT, SDS TIME, G	[1]Strong majority effect; 2/3 majorities favoring not guilty much more successful than those favoring conviction. Juries with unanimity requirement more likely to hang and took longer to deliberate when majority favored guilt. Deliberation characterized by more affect, disagreement, and information sharing under unanimity rule. [2]No significant differences on verdict or deliberation time as a function of decision rule.
Padawer-Singer et al. (1977)	$K = 92$ $N = 6/12$ Actual	Video; ∞; Murder	PROC6 PROC7	TIME, G	No impact of jury size or decision rule on conviction rate, but larger juries and non-unanimous juries tended to hang more.
Saks (1977)	$K^1 = 31$ $N^1 = 6/12$ Students; $K^2 = 58$ $N^2 = 6/12$ Actual	[1]Transcript; 120 min; Robbery [2]Video; 120 min; Burglary	PROC6 PROC7	CONT, PART, SDS, TIME, G, **R**	Participation rate more equal in 6-person juries; certainty of guilt greater for convicting juries under unanimity rule. [1]No impact of jury size or decision rule on verdicts, deliberation time, or recall of testimony. [2]Unanimous juries hung more often. Larger juries deliberated longer and members recalled testimony better; members of smaller juries recalled higher percentage of arguments generated. Evidence of "2/3 majority otherwise hung" SDS.
Roper (1980)	$K = 102$ $N = 4$–$6/$ 10–12 Eligible	Video; ∞; Murder	PROC7	SDS, G	Viable minorities (2+) much more likely in larger juries; frequency of hanging and verdict reversal higher with viable minority (no reversals occurred without one). Larger juries with viable minority more likely to hang; smaller juries more likely to reverse.
Elwork et al. (1982)	$K = 18$ $N = 5$–7 Eligible	Video; 150 min; Attempted murder	PROC4	**C**	Compared with non-deliberating jurors given original instructions, deliberating jurors who received the same instructions performed 17% better on a comprehension test of the instructions, and deliberating jurors who received simplified instructions performed 38% better.
Severance & Loftus (1982)	$K = 405$ $N = ?$ Archival	Mixed; WA	PROC5	ASK	When allowed, 24% of juries asked questions of the judge during deliberation ($M = 1.4$ questions per trial). Most frequent question topics were pattern instruction definitions of "intent" and "reasonable doubt."
Katzev & Wishart (1985)	$K = 30$ $N = ?$ Students	Video; min = ?; Burglary	PROC4	TIME, G	No impact of judicial post-trial comments on verdicts. Judicial summation of evidence resulted in shorter deliberation time; judicial summation plus evaluation of eyewitness credibility reduced time even further.

(Table 1 continues)

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Table 1 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Sand & Reiss (1985)	$K^1 = 26$ $K^2 = 32$ $N = 12?$ Field	Mixed; US (2nd Cir.)	PROC5	ASK, NOTE	[1]31% of juries allowed to ask instructions did not; 54% asked 1–3 questions. [2]Some notes taken in 31 of 32 trials. Anecdotal evidence that percentage of jury taking notes across cases and page volume generated by jurors varied considerably.
Heuer & Penrod (1988, 1989)	$K = 67$ $N = 12$ Field	Mixed; US (WI)	PROC4 PROC5	ASK, NOTE, TIME, **R**	67% of jurors took notes when allowed (*Mdn* = 3 pages) and asked about 3 questions on average during the course of a trial. Notetaking increased satisfaction but did not increase recall of instructions. Written instructions reduced juror disputes during deliberation; pre-instruction helped jurors follow legal guidelines and increased satisfaction. No evidence of negative reaction or detrimental impact associated with either procedure.
Boster et al. (1991)	$K = 20$ $N = 4–6$ Eligible	Live; 120 min; Auto accident	PROC7	FORE, TIME A	Forepersons tended to be male, White, first to mention need to fill the role, and very influential relative to average juror, especially in larger juries.
Velasco (1995)	$K = 24$ $N = 6/12$ Students	Live; 60 min; Various (4)	PROC6 PROC7	CONT, FORE, PART, TIME, G	No impact of decision rule or jury size on verdicts (slight tendency for larger juries to hang more). Forepersons spoke most in more than half the juries. Participation greater in smaller juries; no juror remained silent in smaller juries, but at least one juror did in more than half of larger juries.
Diamond & Levi (1996)	$K = 12$ $N = 6$ Eligible	Audio; 40 min; Capital	PROC4	CONT, **C, G**	Jurors who received simplified instructions less likely to prefer death penalty. Deliberating jurors scored higher on a test of comprehension than did non-deliberators; juror comprehension 15% better for deliberating jurors who received simplified instructions compared with those who received pattern instructions. Comprehension poor even with revised instructions.
Leibman et al. (1998)	$K = 82$ $N = 6–7$ Students	Video; min = ?; Auto negligence	PROC9	A, L	Jury attributions of fault and damages influenced by knowledge of cap on plaintiff's responsibility. When informed, juries assigned lower fault to plaintiff and more frequently awarded damages, but no impact on award amounts.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Saxton (1998)	K = 49 N = ? Field	Mixed; WY	PROC3	CONT, **C**	Jurors estimated spending about one third of deliberation discussing instructions. Almost all jurors confident they understood instructions. Mean comprehension score computed for relevant instruction items on objective test was 80% for criminal jurors and 58% for civil jurors. Juror confidence on individual test items unrelated to item performance. Instructed jurors performed 17% better on average than control (uninstructed) jurors. Judge–jury agreement on verdict was 76% for criminal trials and 50% for civil trials.
Koch & Devine (1999)	K = 49 N = 4–7 Students	Transcript; 30 min; Murder[LIC]	PROC1 PROC8	G	Definition of "reasonable doubt" interacted with option to convict on lesser charge. No variation in conviction rate across conditions when juries received "firmly convinced" definition of reasonable doubt; undefined reasonable doubt led to higher conviction rate when lesser charge available but lower rate when lesser charge unavailable. More murder convictions with "firmly convinced" definition.

Note. Sample codes: K = number of juries in sample; N = size of juries ("/" indicates jury size varied systematically); Field = correlational field study or field experiment; Archival = data obtained from court records; Students = university students; Actual = individuals reporting for actual jury duty and not seated on a jury, or actual jurors serving extended term; Eligible = jury-eligible community residents. Superscript numbers indicate separate samples analyzed in the same article.
Trial codes: Civil = actual civil trials; US = data gathered from federal district courts, with the corresponding state(s) indicated in parentheses; State abbreviations = state court system where data gathered from actual trials; Video = mock or real trial presented via video cassette player; min = time allowed for deliberation (in minutes); LIC = lesser included charge; Audio = edited trial presented via audio playback; Booklet = brief trial summary presented in written format; Live = trial performed for mock jury in actual courtroom; Transcript = edited trial transcript presented in written format; Mixed = combination of previous sources. Note that where one or more particular charges were the focus of the study, these are listed last.
Independent variable (IV) codes: PROC9 = trial structure; PROC7 = jury size; PROC6 = assigned decision rule; PROC1 = legal definitions; PROC4 = simplified instructions; PROC5 = juror involvement; PROC3 = general instructions; PROC8 = verdict/sentence options.
Dependent variable (DV) codes: TIME = time spent in deliberation; L = judgment of liability; CONT = deliberation content; PART = juror participation; G = judgment of guilt; POLL = no. of polls taken; SDS = social decision schemes; R = recall of evidence; C = comprehension of instructions; ASK = juror question-asking; NOTE = juror note-taking; FORE = foreperson characteristics; A = damage award. DVs in boldface type indicate variables analyzed at the individual level.

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Table 2
Summaries of Empirical Research on Participant Characteristics, Ordered by Date (1955–1999)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Simon (1964)	$K = 9$ $N = 6$ Psychiatric	Audio; min = ?; Incest	PART11	CONT, G	Juries composed of mental patients less likely to convict than non-institutionalized juries. Juries composed of paranoid–hostile individuals most likely to convict and had deliberations similar to non-institutionalized juries; juries composed of psychopaths most likely to acquit by reason of insanity.
Reed (1965)	$K = 60$ $N = 12$ Survey	Mixed; LA	PART10	CONT, G	Criminal juries often departed from normative behavior in talking about non-evidential topics; civil juries performed somewhat better.
Simon & Mahan (1971)	$K = 24$ $N = 6$ Mixed	Audio; 30 min; Murder	PART10	G	Student mock juries less likely to acquit than juries composed of actual jurors. Asking jurors to make a probability estimate of defendant committing the crime decreased incidence of hung juries and increased acquittal rate.
Nagel & Weitzman (1972)	$K = 364$ $N = ?$ Archival	Civil; OH	PART10 PART14	A, L	Gender composition of jury had no impact on verdicts, but male-dominated juries tended to give larger awards to male plaintiffs whereas female-dominated juries tended to give larger awards to female plaintiffs. Award bias larger for males (29% vs. 14%).
Adler (1973)	$K = 100$ $N = 12$ Archival	Criminal; PA	PART10 PART14	G	Juries that convicted had higher average prestige scores (based on socioeconomic status). Discrepancy between defendant prestige and average juror prestige positively related to conviction regardless of whether defendant or jury higher.
Izzett & Leginski (1974)	$K = 10$ $N = 4$–6 Students	Booklet; min = ?; Murder	PART14	S	Predeliberation bias against unattractive defendant reduced, but not eliminated, by deliberation. Juror sentences more lenient after discussion.
Rumsey (1976)	$K = 24$ $N = 4$ Students	Booklet; 15 min; Negligent homicide	PART14	S	General leniency effect produced by deliberation in all conditions. Weak manipulation of remorse had moderate impact on predeliberation guilt ratings but no effect of remorse on postdeliberation ratings.
McGuire & Bermant (1977)	$K = 40$ $N = 5$–8 Students	Audio/slide; >45 min; Murder	PART10 PART14	G	Attorney sex affected jury verdicts; higher acquittal rate for jurors exposed to male defense attorney. No effect of attorney or defendant race on juror pre- or postdeliberation verdicts.
Beckham & Aronson (1978)	$K = 155$ $N = 12$ Archival	Criminal; US (TX)	PART10	FORE	Only 9% of forepersons were female (14 of 155); 46% expected on the basis of chance (72).

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Bray & Noble (1978)	$K = 44$ $N = 6$ Students	Audio; 45 min; Murder	PART11	G, S	Juries composed entirely of high-authoritarian jurors convicted 35% more and recommended sentences 2× longer on average than low-authoritarian juries.
Bray et al. (1978)	$K = 50$ $N = 6$ Mixed	Audio; ∞; Murder	PART10 PART14	G, S	No impact of defendant socioeconomic status or jury type (student vs. community) on jury verdicts, but longer sentences given to high-status defendants.
J. H. Davis et al. (1978)	$K = 118$ $N = 6$ Students	Video/audio; 30 min; Rape	PART12	SDS, G, **R**	Juries composed entirely of jurors with more cynical attitudes regarding people accused of rape more likely to convict than juries with less cynical jurors. Bias in predeliberation verdicts attenuated but not eliminated by deliberation. Good recall of case facts by jurors in both jury types.
Baldwin & McConville (1979,[a] 1980[b])	$K^a = 728$ $N^a = 12$ Survey $K^b = 326$ $N^b = 12$ Archival	Criminal; England	PART10 PART16	FORE, G	[a]Surveys of trial judges, prosecutors, defense solicitors, and police officers—jury verdicts seen as primarily determined by evidence, but jury sentiment toward defendant and/or victim seen as most important factor in 25% of acquittals. [b]No impact of juror age, gender, or social class on verdicts. Forepersons tended to be professional and male.
Fischoff (1979)	$K = 12$ $N = 6–7$ Students	Booklet; 45 min; Battery	PART10	**G, S**	Involved racist confederate. Men and those preferring guilt were more confident of their preferences before deliberation. Deliberation produced leniency shift and eliminated difference in confidence as a function of gender.
Kerr et al. (1979)	$K = 38$ $N = 6$ Mixed	Transcript; 45 min; Vandalism	PART10	POLL, SDS, TIME, G, S	Type of jury (perceived real vs. mock) did not affect number of polls taken, verdicts, or sentences. Evidence for a "2/3 majority" primary SDS.
C. J. Mills & Bohannon (1980)	$K = ?$ $N = 12?$ Survey	Criminal; MD	PART10	**G**	Juror race, age, and education weakly related to verdict preferences, moderated by gender and case type. Men more likely to report changing vote during deliberation and disagreeing with jury's final verdict. Women reported being less influential than men during deliberation. 14% of respondents indicated overriding duty to reach a verdict, even if uncertain.
Kerr et al. (1982)	$K = 145$ $N = ?$ Field	Criminal; CA	PART13	FORE, G	Forepersons tended to be male and to have previous experience. Contrast effect noted in reduced sample of 40 "close" trials; juries less likely to convict when they contained experienced jurors exposed to strong prosecution evidence in 1 or more previous trials (especially if their 1st).

(*Table 2 continues*)

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Table 2 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Lamberth et al. (1982)	$K^1 = 7$ $N^1 = 12$ Students; $K^2 = 10$ $N^2 = 12$ Actual; $K^3 = 25$ $N^3 = 12$ Students	Video; 120 min; Attempted rape and burglary	PART10 PART11	G	Across 3 studies, authoritarian jurors more likely than equalitarian jurors to prefer guilt prior to deliberation and to change verdict preference during deliberation. Race, sex, and age not systematically related to verdict preference change. Foreperson roughly 3× more likely than chance to be identified as most influential juror.
McGowen & King (1982)	$K = 60$ $N = 6$ Students	Booklet; 60 min; Murder^{LIC}	PART11 PART14	G, S	Tendency for juries consisting entirely of high-authoritarian individuals to convict more, choose more severe verdicts, and give longer sentences than egalitarian and anti-authoritarian juries. All jury types (especially authoritarian) harsher on similar as opposed to dissimilar defendants.
Sannito & Arnolds (1982)	$K = 62?$ $N = 12?$ Survey	Mixed; 33 states + Canada	PART10 PART15 PART16	FORE, V	Forepersons tended to be male (70%) and one of the first jurors to speak. Perceived prosecutor skill moderately related to predeliberation and final votes; defense attorney skill, defendant attractiveness, and juror sex, race, and occupation weakly related; most demographic characteristics unrelated.
Shaffer & Case (1982)	$K = 60$ $N = 6$ Students	Booklet; 45 min; Armed robbery, murder	PART11 PART14	CONT, G	Defendants taking 5th Amendment before testifying on the witness stand much more likely to be convicted than those who testified. Convicting juries had roughly 2× as many dogmatic jurors as juries that acquitted. More proconviction statements made during deliberation when defendant took the 5th, and more references to evidence when defendant testified.
Goldman et al. (1983)	$K = 12$ $N = 6$ Students	Live; min = ?; Rape^{LIC}	PART10 PART11	CONT, G	More tension release in deliberation for female juries, as well as those characterized by high trait-anxiety, low ego-level, and high authoritarianism. Male juries had higher disagreement rate than mixed or female juries.
Kassin & Juhnke (1983)	$K = 27$ $N = 6$ Students	Transcript; 32 min; Theft, drugs	PART13	TIME, G	Prior jury experience not related to verdict preference differences before or after deliberation, but novice jurors changed verdict preferences more often in juries dominated by experienced as opposed to inexperienced jurors.
Lipton (1983)	$K = 16$ $N = 6$ Students	Transcript; ∞; Cheating, vandalism	PART10 PART14	G	Men more lenient on predominantly female jury; women harsher on predominantly male jury. Using 5-point guilt scale, White jurors more likely to change verdict preference toward "innocence" on predominantly Hispanic jury; Hispanic jurors more likely to change vote toward "extremely guilty" on predominantly White jury.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Bernard & Dwyer (1984)	K = 15 N = 12 Students	Booklet; min = ?; Murder	PART12	G, S	No impact of death penalty attitude composition on verdict, but proportion of jurors favoring death penalty related to jury sentence; juries with 50% excludable jurors never gave death sentence. Moderate jurors most likely to change votes during deliberation.
Cowan et al. (1984)[a]; Ellsworth (1989)[b]	K^a = 19 K^b = 18 N = 12 Eligible	Video; 60 min; Murder[LIC]	PART12	CONT, FORE, G, **R**	[a]No impact of jury composition (death-qualified vs. mixed); all juries hung. Death-qualified jurors more likely to vote guilty before and after deliberation. [b]Forepersons tended to be male, sit at head of table, and claim experience; selection process brief and perfunctory. Half of juries used verdict-driven style; half used evidence-driven style. 47% of speaking acts concerned case facts, 32% concerned contested issues, and 21% concerned the law. Focus of discussion shifted from facts to law over time. Deliberation uncovered case facts but highlighted poor comprehension of instructions and correction of errors. Vote changes tended to occur after discussion of the law as opposed to case facts.
Bernard et al. (1985)[1]; Lupfer et al. (1987)[2]	K^1 = 11 K^2 = 21 N = 6 Students	Video; 60 min; Assault	PART12 PART16	**L**	[1]Large impact of juror moral reasoning on jury verdicts; juries composed of jurors with postconventional moral reasoning more likely to find defendant not liable than juries made up of jurors with conventional reasoning and mixed juries. [2]Main effect of composition replicated; leniency shift occurred in juries exposed to postconventional closing arguments from plaintiff and conventional arguments from defense attorney.
Blanck (1985); Blanck et al. (1990); Blanck (1991)	K = 34 N = 12 Field	Criminal; CA; Misdemeanor	PART14 PART16	G	Defendants with prior felony arrest (not conviction) more likely to be convicted. Moderate positive association between defendants' socioeconomic status and conviction. Observer ratings of judge courtroom behavior moderately–strongly related to jury verdicts. Poor judge–jury agreement on appropriate verdict (weak negative relationship).
Dillehay & Nietzel (1985)	K = 163 N = ? Survey	Criminal; KY	PART13	FORE, G	Conviction positively related to number of experienced jurors and total juror experience in jury. Forepersons tended to be male and have previous experience as juror or foreperson. Characteristics of prior experience as foreperson not related to verdicts.
Johnson (1985)	K = 53 N = 1–7 Mixed	Video; 15 min; Child abuse	PART12 PART14 PART16	**G, S**	More convictions and longer sentences after deliberation when defendant portrayed as religious; religious jurors tended to be harsher when religiosity of defendant noted. No impact of attorney sex on jury verdicts.

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Table 2 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Strodtbeck & Lipinski (1985)[a]; Hawkins (1962)[b]; Strodtbeck & Hook (1961)[c]; Strodtbeck et al. (1957)[d]; Strodtbeck & Mann (1956)[e]	$K^a = 160$ $K^b = 22$ $K^c = 69$ $K^d = 49$ $K^e = 12$ $N = 12$ Actual	Audio; min = ?; Auto negligence, product liability	PART10	CONT, FORE, PART	[a]Integrated analysis of data from Chicago Jury Project. Foreperson selection a function of seat position (end of table), status (high = socioeconomic status occupation), and past experience as a juror (93% of variance). Juries with high-socioeconomic status forepersons less likely to hang. [b]Participation decreased as faction size increased. [c]No unique findings. [d]Forepersons accounted for 25% of speaking acts, tended to be male, tended to have high status, and were first to mention need to fill role. Most often selected via nomination followed by quick confirmation. Men and high-status jurors tended to participate more; top 3 participants accounted for 82% of speaking acts. [e]Men asked more questions and attempted to provide more answers during deliberation; women tended to give more positive reactions.
Linz et al. (1986)	$K = 50$ $N = 12$ Field	Criminal; WI	PART16	G	As rated by in-court observers, content and style characteristics of attorney opening statements unrelated to first-ballot preference distribution or final verdicts. Attorney experience not related to courtroom performance but positively correlated with attorney self-evaluations.
Moran & Comfort (1986); Moran & Comfort (1982)	$K^1 = ?$ $K^2 = 30+$ $N = ?$ Survey	Criminal; FL	PART10 PART11 PART12	PART, FORE, G	Attitude toward death penalty weakly related to pre-verdicts and unrelated to post-verdicts in both studies. [1]Numerous demographic, personality, and attitudinal variables weakly related to self-reported pre- and post-deliberation verdict preferences, vote change, participation, and influence. Relationships generally differed by sex. 14% of respondents reported changing their vote during deliberation. [2]Capital juries deliberated longer than noncapital juries.
Shaffer et al. (1986)	$K = 48$ $N = 6$ Students	Booklet; 45 min; Assault/theft	PART11 PART14	CONT, G, S	Juries with 3+ dogmatic jurors had mild tendency to convict more and recommended sentences more than 2× longer than juries with < 3 dogmatic jurors; 5× longer when defendant suffered from crime-related injuries. Mean jury dogmatism correlated .54 with sentence length. All hung juries had at least 1 non-dogmatic juror who would not convict.
MacCoun (1990)	$K = 87$ $N = 2–4$ Students	Audio; 40 min; Theft	PART14 PART15	SDS, G	Attractive defendants much more likely to be acquitted; no impact of victim attractiveness on verdicts. General leniency shift during deliberation; stronger for attractive defendants.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Hans & Lofquist (1992)[a]; Hans & Swiegart (1993)[b]	K = 18 N = 12 Interview	Civil; min = ?; Business torts	PART10 PART12 PART16	A	[a]Mean juror attitude toward "litigation explosion" and businesses in general strongly related to jury awards. [b]Juror reactions to attorneys driven by perceptions of demeanor, emotionality, and organization; jurors did not like extremely high or low levels of emotion or badgering witnesses. Jurors very skeptical of attorneys and reported little influence of opening statements.
Perez et al. (1993)	K = 80 N = 6 Students	Video; min = ?; Robbery	PART10 PART14	G, S	No main effect of defendant ethnicity on conviction rate but interacted with jury race composition. White-majority juries convicted more often than Hispanic-majority juries and were much more likely to convict Hispanic defendant than White defendant. Hispanic-majority juries exhibited tendency to convict White defendant more than Hispanic defendant.
Badzinksi & Pettus (1994)	K = 80 N = 4–6 Students	Video; min = ?; Murder, drugs	PART16	G	No impact of judge sex or nonverbal involvement on jury verdicts.
Bromley (1996)	K = 60 N = 6 Survey	Criminal; CO; Drunk driving	PART10 PART12	G	Judge–jury verdict agreement similar in 1958 and 1993 data, but judges became more lenient. Defense argument related to jury leniency.
Fischer (1997)	K = 76 N = 10–12 Students	Booklet; min = ?; Rape	PART10	G	Proportion of female jurors related to verdicts in nonlinear fashion. Only when women comprised an overwhelming majority (5:1 or higher) did the percentage of convictions increase significantly relative to other compositions.
Foley & Pigott (1997a, 1997b)	K = 24 N = 5–10? Mixed	Audio min = ?; Rape	PART10 PART12 PART15	FORE, **A, R, %**	[a]Several two-way interactions between victim race, victim age, and juror type on responsibility and damages. No impact of juror attitudes on post-deliberation outcomes. [b]Forepersons tended to be more educated and confident and were perceived as more influential than other jurors.
Bowers et al. (1998)[a]; Bowers (1995)[b]	K^a = 257 K^b = ? N = 12 Interview	Criminal; 11 states; Capital	PART12	S	[a]Discussion of defendant punishment occurred during 33% of guilt deliberations. Almost half of jurors decided on "correct" punishment during guilt trial; 67% of these favored death sentence. 67% of jurors "absolutely convinced" of correct punishment before start of sentencing trial; 60% held to this position throughout. Taking early pro-death stand strongly related to pro-death penalty attitude index. [b]Considerable number of jurors felt death sentence obligated if certain aggravating factors present.

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Table 2 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Rotenberg et al. (1998)	K = 12 N = 5–9 Students	Video; 60 min; Armed robbery	PART11 PART12	CONT, G	Extraversion and moral reasoning predicted juror dominance in deliberation; pre-deliberation preferences for individuals with higher levels of moral reasoning were most strongly correlated with jury verdicts, but effect was not mediated by quantity of speaking.
Hyme et al. (1999)	K = 27 N = 5–10 Mixed	Audio; min = ?; Sexual harassment	PART10	%	No pre-deliberation differences by sex; post-deliberation attributions of responsibility affected by gender composition of jury. Jurors in female-majority juries placed more responsibility on female defendant; jurors in male-dominated juries placed more responsibility on defendant's corporation.
K. S. Klein & Klastorin (1999)	K = 188 N = ? Archival	Criminal; CA; Various	PART10 PART14	G	Ethnic/racial diversity was related to occurrence of hung juries, but only when defendant was African American. With African American defendant, number of White jurors related modestly and positively to reaching consensus on a verdict, but number of Hispanic and Asian American jurors were both negatively related. No relationship between gender diversity and occurrence of hung juries.

Note. Sample codes: K = number of juries in sample; N = size of juries; Psychiatric = patients at veterans hospital; Survey = survey of ex-jurors; Mixed = combination of participant sources; Archival = data obtained from court records; Students = sample drawn from university students; Field = correlational field study or field experiment; Eligible = jury-eligible community residents; Actual = individuals reporting for actual jury duty and not seated on a jury, or actual jurors serving extended term; Interview = interviews with ex-jurors. Superscript letters indicate studies in which the same or overlapping data sets were analyzed in separate articles. Superscript numbers indicate separate samples analyzed in the same article.
Trial codes: Audio = edited trial presented via audio playback; min = time allowed for deliberation (in minutes); Mixed = combination of previous sources; State abbreviations = state court system where data gathered from actual trials; Civil = actual civil trials; Criminal = actual criminal trials; Booklet = brief trial summary presented in written format; US = data gathered from federal district courts, with the corresponding state(s) indicated in parentheses; Video = mock or real trial presented via video cassette player; Transcript = edited trial transcript presented in written format; Live = trial performed for mock jury in actual courtroom; LIC = lesser included charge. Note that where one or more particular charges were the focus of the study, these are listed last.
Independent variable (IV) codes: PART11 = juror personality traits; PART10 = juror demographics; PART14 = defendant characteristics; PART12 = juror attitudes/values; PART16 = judge/attorney characteristics; PART13 = juror experience; PART15 = victim/plaintiff characteristics. See Table 5 for other studies involving participant characteristics.
Dependent variable (DV) codes: CONT = deliberation content; G = judgment of guilt; L = judgment of liability; A = damage award; S = sentence; FORE = foreperson characteristics; SDS = social decision schemes; R = recall of evidence; POLL = no. of polls taken; TIME = time spent in deliberation; V = mixed verdicts (G & L); PART = juror participation; % = percent responsibility. DVs in boldface type indicate variables analyzed at the individual level.

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Table 3
Summaries of Empirical Research on Case Characteristics, Ordered by Date (1955–1999)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Padawer-Singer & Barton (1975)	$K = 33$ $N = 12$ Eligible	Audio; 240 min; Murder	CASE19	G	Juries exposed to negative pretrial publicity (i.e., defendant's past record and retracted confession) considerably more likely to convict in 1 of 2 samples.
Carlson et al. (1977)	$K = 8$ $N = 12$ Students	Live; >45 min; Murder	CASE18	G	When asked to consider additional hypothetical polygraph data contrary to their final verdict, few jurors indicated they would have changed their vote.
Kaplan & Miller (1977)	$K = 24$ $N = 6$ Students	Audio; 10 min; Manslaughter	CASE17 CASE24	CONT, G	Deliberation induced polarization consistent with evidence strength, especially when all jurors heard evidence in same order. Facts from last third of trial most likely to be recalled during deliberation.
Markwart & Lynch (1979)	$K = 12$ $N = 8$–12 Students	Booklet; 45 min; Murder	CASE17/ CASE18	CONT, G	Modest effect of polygraph evidence on jury verdicts. Massive evidence of leniency shift in juror verdict preferences during deliberation without any polygraph data, moderate severity shift with unfavorable data, but only weak leniency shift with favorable data. Older jurors (over 23 years old) more likely to concur with polygraph data.
Loftus (1980)	$K = 20$ $N = 6$ Eligible	Booklet; 30 min; Assault	CASE21	CONT, G	Juries hearing expert testimony on eyewitness reliability convicted less often and discussed eyewitness testimony more than juries not exposed to expert testimony.
Carretta & Moreland (1983)	$K = 45$ $N = 6$ Students	Booklet; 35 min; Robbery	CASE17 CASE19	CONT, TIME, G	Postdeliberation verdicts influenced by evidence strength and admissibility, but less so than predeliberation verdicts. Inadmissible evidence favoring prosecution discussed more than when it favored defense or ruled admissible.
Leippe (1985)	$K = 36$ $N = 2$–4 Students	Booklet; 10 min; Robbery	CASE17	G	Eyewitness testimony influenced juror postdeliberation verdicts. More convictions when 2 witnesses (victim, bystander) identified the defendant compared with 1, but conviction rate much lower when bystander contradicted victim's identification.
Maass et al. (1985)	$K = 60$ $N = 6$ Students	Booklet; 30 min; Burglary, robbery	CASE17 CASE22 CASE21	TIME, G	Strong impact of eyewitness identification on conviction rate. Expert testimony reduced impact of eyewitness identification when it included causal explanations. Longer deliberation when expert testimony provided, especially when it did not include causal explanations.

(*Table 3 continues*)

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Table 3 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Wittman (1985)	K = 582 N = ? Archival	Civil; CA; Auto negligence	CASE17	A, L	Tested Priest & Klein's (1984) "50%" model. Plaintiff win rate considerably higher than 50%. Measures of plaintiff culpability and defendant culpability related to the difference between the plaintiff's demand and the defendant's offer. Plaintiff loss and defendant corporate status positively associated with size of damage award.
R. W. Davis (1986)	K = 20 N = 12 Students	Video; 60 min; Attempted rape	CASE19 CASE24	CONT, TIME, G, R	20% higher conviction rate for juries receiving negative pretrial information about defendant compared with those receiving neutral information. Juries exposed to negative pretrial information tended to hang with immediate trial and acquit after delayed trial. Immediate-trial juries deliberated longer. Deliberation produced a leniency shift.
Tanford & Penrod (1986)	K = 100 N = 6 Eligible	Video; 60 min; Burglary, assault, armed robbery	CASE22	CONT, SDS, TIME, G	Evidence of strong majority effect coupled with leniency bias. For 1st charge considered, juror postdeliberation verdicts predicted by predeliberation preference, jury-level preference distribution, and 8 deliberation content codes (partial mediation). For latter 2 charges, juror postdeliberation verdicts primarily a function of initial jury-level preference distribution and final votes on previous charges. Deliberation tended to focus on case facts and verdict preferences, and more time spent on 1st charge compared with last 2 charges.
Geimer & Amsterdam (1988)	K = 10 N = 12 Interview	Criminal; FL; Capital	CASE24	S	Jurors tended to report aggravating/mitigating factors not strong determinants of verdict. Heinousness of killing was most often-cited reason by jurors from the 5 juries imposing death; lingering doubts and opposition to death penalty most often cited by jurors from juries imposing life. 64% of jurors from death juries felt death penalty was the default or mandatory.
Daniels & Andrews (1989)	K = 23 N = ? Archival	Civil; min = ?; Malpractice	CASE17	A, L	Physician negligence regarding use of delivery drug strongly related to jury verdicts. Plaintiffs won 14 of 16 cases when drug contraindicated, 1 of 7 when drug indicated.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Greene et al. (1989)	K = 43 N = 5–9 Mixed	Video; 45 min; Assault	CASE20	CONT, G, R	Timing of eyewitness identification had weak effect on jury verdicts (fewer convictions when hypnotically elicited). More negative comments in deliberation regarding witness credibility when testimony elicited hypnotically. Evidence recall good, not effected by timing.
Nigro et al. (1989)	K = 32 N = 6 Students	Booklet; 45 min; Reckless homicide	CASE20	CONT, TIME, G	Most juries acquitted; fewer acquittals when child eyewitness also had powerful speech style. Leniency effect observed in postdeliberation guilt ratings. Child eyewitness with powerful speech style seen as most credible; child with powerless speech style seen as least credible (compared with adult eyewitnesses).
Spanos et al. (1989)	K = 48 N = 5–6 Students	Booklet; 90 min; Sexual assault	CASE21	TIME, G	Juries hearing expert testimony favorable to hypnotically aided recall tended to convict more than juries that heard unfavorable testimony and juries that heard both versions of testimony in case in which victim's testimony was elicited hypnotically.
Daniels & Martin (1990)[a]; Daniels (1990)[b]; Daniels & Martin (1986)[c]	K^a = 25,627 K^b = 24,625 K^c = 23,703 N = ? Archival	Civil; 11 states	CASE22 CASE23	A, L	[a]Overall plaintiff win rate near 50%. Punitive damages were rare and modest, incidence varied considerably by case type (most likely in cases involving financial or emotional harm) and jurisdiction. [b]Median damage awards in malpractice cases varied as a function of county-level socioeconomic, health care, and legal factors. [c]Plaintiff success rates and median damage awards varied considerably by case type and jurisdiction. Median award was modest in most jurisdictions.
Brekke et al. (1991)	K = 90 N = 6 Eligible	Video; 75 min; Sexual assault	CASE21 CASE24	CONT, G, R	Minor impact of court-appointed expert versus adversarial expert. Adversarial testimony most influential when it clearly favored one side; court-appointed expert testimony influential when one-sided or balanced. Recall of expert testimony better with nonadversarial format.

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Table 3 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Viscusi (1991)	K = 435 N = ? Archival	Civil; National; Product liability	CASE23	A, L	Liability doctrine strongly related to jury verdicts, with higher percentage of plaintiff wins under strict liability. Modest, nonsignificant relationship between plaintiff's claimed economic loss and liability judgments. Plaintiffs injured on job had lower probability of winning. Large losses tended to be undercompensated, whereas smaller claims overcompensated. Medical expenses had strongest relation to total award; miscellaneous expenses had weakest.
Schuller (1992)	K = 30 N = 3–5 Students	Video; 60 min; Murder^{LIC}	CASE21	CONT, G	Specificity of expert testimony on battered woman syndrome did not affect conviction rate, but testimony that linked the defendant to profile reduced verdict severity compared with general exposition of syndrome. Expert testimony infrequently mentioned during deliberation.
Spanos et al. (1992–1993)	K = 40 N = 5–8 Students	Audio; 90 min; Murder	CASE17/ CASE20 CASE18	G	Strong impact of eyewitness testimony on jury verdicts; no impact of polygraph data. Conviction rate substantially higher for juries that heard eyewitness testimony compared with those that did not.
Sloan et al. (1993)	K = 37 N = ? Archival	Civil; FL; Malpractice	CASE17	A, L	Focused on birth-related and emergency room injuries and measured past and projected economic losses. Independent panel ratings of patient care moderately related to liability judgments. Substantial variability remained in awards with same level of plaintiff injury severity after controlling for economic damages.
Farber & White (1994)	K = 26 N = ? Archival	Civil; min = ?; Malpractice	CASE17	A, L	Low plaintiff win rate in small percentage of medical malpractice cases reaching jury. Jury verdicts moderately related to quality of patient care. All plaintiff wins occurred with "bad" or "ambiguous" care, never "good."
Vidmar (1995)	K = 109 N = ? Archival	Civil; NC; Malpractice	CASE22	A, L	Less than 10% of cases went to trial; 50% settled. Plaintiff win rate low and median award very modest (especially for malpractice cases).

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Eisenberg, Goerdt, et al. (1996)[a]; Clermont & Eisenberg (1992)[b]; Eisenberg (1989)[c]	K^a = 26,917 K^b = 37,503 K^c = 4,409 N = ? Archival	Civil; US (all) Various	CASE22 CASE23	A, L	[a]Plaintiff success rates varied considerably by case type in 14 years of federal district court data. Median awards varied considerably by case type. Striking similarity in plaintiff success rates between federal and state courts across most case types, but median awards 2× higher in federal courts. No upward trend in plaintiff success rates over 14-year time span. [b]Success rates in jury trials lower than success rates in bench trials for most case types. [c]No unique findings.
Kovera et al. (1997)	K = 45 N = 5–6 Students	Video; 45 min; Sexual abuse[LIC]	CASE21	CONT, G	Expert testimony (standard, repetitive, concrete) influenced conviction rates, frequency of discussion regarding the victim's motivation, and behavior and testimony during deliberation; jurors exposed to a repetitive expert recalled testimony better and were more likely to prefer conviction.
Liang (1997)	K = 12 N = 12 Archival	Civil; min = ?; Medical malpractice	CASE17	L	Jury verdicts consistent with consensus judgments of expert anesthesiologists in 5 of 8 medical malpractice cases involving anesthesia.
B. Myers & Arbuthnot (1997)	K = 30 N = 6–11 Students	Video; 45 min; Rape/murder	CASE18	CONT, TIME, G, S	No impact of polygraph evidence on jury verdicts; very little discussion of polygraph evidence or eyewitness testimony. Rated importance of polygraph data strongly correlated with verdict preference before deliberation but not after.
Hastie et al. (1998)	K = 121 N = 6 Eligible	Video/ Booklet; 120 min; Various	CASE22	CONT, FORE, C, L	Juries awarded punitive damages 67% of the time in 4 cases that did not warrant them. 77% of jurors did not change votes during deliberation; those that did tended to shift to "liable." Strong majority influence effect as in criminal cases. Recalling and discussing evidence most common deliberation topic. Initial faction size and case were good predictors of jury verdict; deliberation content codes doubled the variance explained. Comprehension of instructions abysmal; deliberation thoroughness on points of law good predictor of verdict accuracy. Forepersons tended to be male and better educated but no more influential than other jurors.

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Table 3 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Bennett et al. (1999)	K = 83 N = 6–7 Students	Video; 120 min; Auto negligence	CASE21	A, %	No impact of computer-animated simulation in expert testimony on judgments of either responsibility or damages.
Greene, Downey, & Goodman-Delahunty (1999)	K = 22 N = 4–6 Eligible	Audio; 45 min; Employment	CASE21	CONT, A	Damages highest when 1 expert testified for prosecution and proposed a specific figure, compared with no expert or 2 competing experts who gave contrasting figures. Weak impact of expert recommendations before deliberation; moderate association afterward. Taking modal value of individual award preferences was most common method of determining jury-level damage award, but many methods were used.
Kerr et al. (1999)	K = 40 N = 4 Students	Booklet; 15 min; Child molestation	CASE17 CASE19	CONT, G, **S**	Moderate effect of case strength, weak effect of negative pretrial publicity. Bias related to pretrial publicity attenuated by deliberation with weak case but accentuated with moderate case. Interaction effect not mediated by discussion of case facts during deliberation.

Note. Sample codes: K = number of juries in sample; N = size of juries; Eligible = jury-eligible community residents; Students = university students; Archival = data obtained from court records; Interview = interviews with ex-jurors; Mixed = combination of participant sources.
Trial codes: Audio = edited trial presented via audio playback; min = time allowed for deliberation (in minutes); Live = trial performed for mock jury in actual courtroom; Booklet = brief trial summary presented in written format; Civil = actual civil trials; National = cases from all federal and state court systems; State abbreviations = state court system where data gathered from actual trials; Video = mock or real trial presented via video cassette player; Criminal = actual criminal trials; LIC = lesser included charge; US = data were gathered from federal district courts, with the corresponding state(s) indicated in parentheses. Note that where one or more particular charges were the focus of the study, these are listed last.
Independent variable (IV) codes: CASE19 = inadmissible material; CASE18 = technical evidence; CASE17 = strength of evidence; CASE24 = miscellaneous; CASE21 = expert testimony; CASE22 = case type; CASE20 = witness testimony; CASE23 = jurisdiction. See Table 5 for other studies involving case characteristics. "/" separating two IV codes indicates confounding.
Dependent variable (DV) codes: G = judgment of guilt; CONT = deliberation content; TIME = time spent in deliberation; L = judgment of liability; A = damage award; R = recall of evidence; SDS = social decision schemes; S = sentence; FORE = foreperson characteristics; C = comprehension of instructions; % = percent responsibility. DVs in boldface type indicate variables analyzed at the individual level.

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Table 4
Summaries of Empirical Research on Deliberation Characteristics, Ordered by Date (1955–1999)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Bevan et al. (1958)	$K^1 = 4$ $K^2 = 4$ $N = 12$ Mixed	Video; min = ?; Auto accident	DELB27	CONT, FORE, L, A	No impact of confederate foreperson characteristics on jury liability verdicts, but all forepersons effective in increasing jury awards. [1]Low-prestige forepersons had more influence on damage awards than high-prestige forepersons. [2]Autocratic style had more influence than democratic style.
Foss (1976)	$K = 24$ $N = 5–7$ Students	Booklet; min = ?; Murder[LIC]	DELB27	SDS, G, S	Supported a "5/6 majority" primary SDS and a proportionality secondary scheme when strong majority absent. Tendency for individuals favoring conviction to be more likely to resist majority influence.
J. H. Davis et al. (1976)[a]; Stasser & Davis (1977)[b]	$K = 144$ $N = 6$ Students	Video/audio; 30 min; Rape	DELB26	SHIFT, G	[a]No impact of polling secrecy on jury verdicts. Private polling produced fast initial opinion change that tailed off; public polling resulted in slow initial movement that gained speed. Shifts toward not guilty more frequent than guilty. [b]Preference shift during deliberation was fairly constant and a simple linear function of majority faction size.
Zeisel & Diamond (1978)	$K = 12$ $N = 6, 12$ Field	Mixed; US (IL)	DELB27	SDS, V	Compared actual juries with shadow "English" juries, shadow juries composed of excused jurors, and hypothetical juries without challenges during voir dire. Predicted likelihood of guilt for actual juries and hypothetical juries differed substantially in 3 of 12 trials but overall impact of composition slight because attorneys not good at identifying jurors sympathetic to opposing side.
Stasser & Davis (1981)	$K = 71$ $N = 4, 6$ Students	Booklet; 24 min; Rape	DELB26	SDS, SHIFT, G	Verdict preference shifts best predicted by "norm" model in which juror verdict certainty was a function of information exchange but juror verdict change was a function of normative pressure.
Kerr (1982)	$K = 20$ $N = 4–6$ Students	Booklet; 7 min; Armed robbery	DELB26	POLL, SDS SHIFT, TIME, G	Systematic polling tended to increase likelihood of unanimity and decrease deliberation time; no effect on verdicts. Tendency for jurors in minority to choose opposite verdict in next case.

(*Table 4 continues*)

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Table 4 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
J. H. Davis et al. (1984)	$K = 69$ $N = 6$ Students	Video; 20 min/charge; Homicide, battery, property damage	DELB25	CONT, TIME, SDS, G	Order of charge consideration and verdict on prior charge influenced charge conviction rates but not SDS. Highest conviction rate for most serious charge (reckless homicide). More convictions on "middle" charge (i.e., aggravated battery) when charges deliberated in descending order of seriousness. Conviction on previous charge increased conviction probability on subsequent charges.
Stasser et al. (1984)	$K = 39$ $N = 6$ Students	Booklet; 15 min; Reckless manslaughter	DELB26 DELB27	SHIFT, CONT	Preference change influenced by number of supporting arguments but not number of advocates.
Holstein (1985)	$K = 48$ $N = 5–6$ Actual	Video; 30 min; Theft	DELB27	CONT, TIME, G	Juries attempted to organize case facts into coherent narrative and considered 2–3 "theories" regarding defendant's behavior on average. Most theories offered early in deliberation; number considered strongly and positively related to deliberation time and odds of hanging. Consideration of 1 theory in particular highly associated with conviction.
J. H. Davis et al. (1988)	$K = 105$ $N = 6$ Students	Video; >25 min; Assault	DELB26	SDS, **SHIFT,** G	Juror voting sensitive to sequencing effects in evenly divided juries. Individuals voting 4th preceded by 3 votes opposite their predeliberation preference much more likely than chance to switch their vote, but only when poll taken before discussion. Polls taken after minimal discussion showed leniency but no sequence effect. Weak impact of polling on final verdicts.
J. H. Davis et al. (1989)	$K = 130$ $N = 6$ Students	Video; 60 min; Attempted murder	DELB26 DELB27	**SHIFT,** G	Replicated and extended J. H. Davis et al.'s (1988) study. When public sequential polling structured by faction, initial voters in 2nd faction much more likely to change verdict preference than corresponding individuals in juries with simultaneous voting. Marginal projected impact on jury verdicts.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Pettus (1990)	$K = 3$ $N = 8$ Interview	Criminal; min = ?	DELB27	CONT	Jurors formed impressions early. The 2 categories most frequently cited as influencing juror verdicts pertained to the witnesses and the evidence. Defendant viewed as guilty until proven innocent. Verdict-driven style evident in all 3 deliberations; focus on building a coherent "story."
J. H. Davis et al. (1993)	$K^1 = 89$ $K^2 = 126$ $N = 6$ Students	Video; [1]32 min; [2]60 min; Product liability	DELB26	TIME, A	[1]Juries generally gave larger awards than individuals. Juries with mandated polling took longer and hung more but also gave larger awards than juries that did not. [2]No conformity effect of ascending or descending sequence in award preferences; juries taking initial poll after minimal discussion hung more but gave larger awards than juries taking poll before any discussion.
Crott & Werner (1994)	$K = 23$ $N = 5$ Students	Booklet; min = ?; Robbery	DELB27	SDS, S	Final sentence a function of distance in years between distinguishable factions within the jury and the number of members in each faction.
Kameda & Sugimori (1995)	$K^1 = 25$ $N^1 = 6$ $K^2 = 73$ $N^2 = 6$ Students	?; 45 min; Murder	DELB25	SDS, S	[1]Juries that initially discussed case in 3-person subgroups with a local majority favoring life sentence in 1 subgroup never opted for death penalty and generally hung; juries that met once as a whole generally opted for the death penalty. Global majority/ local minority jurors much more likely to change opinion than other members. [2]Replicated in 2nd study.
Sandys & Dillehay (1995)	$K = 233$ $N = 12$ Interview	Criminal; KY	DELB27	POLL, SDS, STYLE, G	Very few deliberations verdict-driven; most evidence-driven or a mix of the two. Final verdicts consistent with 1st-ballot majorities 89% of the time. No evidence of leniency in evenly split juries. Predictive validity of 1st ballot weaker when no discussion had taken place.
Manzo (1996)	$K = 2$ $N = 6, 12$ Field	Mixed; ∞	DELB27	CONT, A, L	Early parts of both deliberations highly structured and democratic (i.e., participative). Speaking (i.e., turns and duration) influenced by foreperson, implicit norms, and nonverbal gestures.

(Table 4 continues)

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Table 4 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
McCoy et al. (1999)	$K = 6$ $N = 12$ Students	Video; >26 min; Murder[LIC]	DELB27	**C, G**	Deliberating jurors showed somewhat higher levels of reasoning than individuals who did not deliberate, where reasoning was defined in terms of systematically matching the evidence to alternative verdict options.

Note. Sample codes: K = number of juries in sample; N = size of juries; Mixed = combination of previous sources; Students = university students; Field = correlational field study or field experiment; Actual = individuals reporting for actual jury duty and not seated on a jury, or actual jurors serving extended term; Interview = interviews with ex-jurors. Superscript numbers indicate separate samples analyzed in the same article. Superscript letters indicate studies in which the same or overlapping data sets were analyzed in separate articles.
Trial codes: Video = mock or real trial presented via video cassette player; min = time allowed for deliberation (in minutes); Booklet = brief trial summary presented in written format; LIC = lesser included charge; Audio = edited trial presented via audio playback; US = data gathered from federal district courts, with the corresponding state(s) indicated in parentheses; Criminal = actual criminal trials; State abbreviations = state court system where data gathered from actual trials; Mixed = combination of previous sources. Note that where one or more particular charges were the focus of the study, these are listed last.
Independent variable (IV) codes: DELB27 = miscellaneous; DELB26 = deliberation polling; DELB25 = deliberation structure. See Table 5 for other studies involving deliberation characteristics.
Dependent variable (DV) codes: CONT = deliberation content; FORE = foreperson characteristics; L = judgment of liability; A = damage award; SDS = social decision schemes; G = judgment of guilt; S = sentence; SHIFT = juror verdict preference change; V = mixed verdicts (G & L); POLL = no. of polls taken; TIME = time spent in deliberation; STYLE = deliberation style; C = comprehension of instructions. DVs in boldface type indicate variables analyzed at the individual level.

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Table 5
Summaries of Empirical Research Involving Multiple Characteristic Types, Ordered by Date (1955–1999)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Broeder (1958)	K = 30 N = 12 Actual	Audio; min = ?; Auto accident	PART14 CASE17	CONT, A, L	Evidence strength and knowledge of defendant's liability insurance unrelated to liability verdicts but moderately and positively related to size of awards.
Kalven & Zeisel (1966)	K = 3,576 N = 12 Survey/ interview	Criminal; National	PART10 PART15 PART16 DELB27	SDS, G	Judges and juries disagreed on verdict 25% of time; juries somewhat more lenient. In a sample of 225 cases in which the 1st ballot was reconstructed, a simple majority predicted the final verdict in 90% of the trials. Hung juries occurred in less than 5% of cases.
Kline & Jess (1966)	K = 8 N = 6 Students	Live; min = ?; Various	PART12 CASE19	CONT, G	At least 1 member in each of 4 juries exposed to prejudicial pretrial publicity mentioned it during deliberation, but 3 of 4 juries appeared to disregard the prejudicial evidence as instructed by the judge.
Simon (1967); James (1959); Simon (1968)	K^a = 98 K^b = 20 K^c = 45 N = 12 Actual	Audio; min = ?; Incest, burglary	PROC1 PART10 CASE21	CONT, PART, FORE, G, **R**	[a]Juries given the M'Naghten definition of insanity much less likely to hang or acquit by reason of insanity than juries receiving no definition or Durham definition. Form of expert testimony had little impact on jury verdicts in the 68 incest trials; fate of defendant in event of not guilty by reason of insanity had no impact on verdicts in the 30 burglary cases. [b]Forepersons accounted for 31% of speaking acts and more likely than chance to be clerical or proprietor. Participation rate higher for men and more educated jurors; 50% of deliberation time concerned personal experiences, 25% related to procedural issues, and 15% pertained to reviewing the facts of the case. [c]No relevant findings.
Judson et al. (1969)	K = 238 N = 12 Archival	Criminal; CA; Murder	PART10 PART14 PART15 CASE17 CASE24	S	Used 178 variables related to defendant, victim, and crime to predict sentencing outcomes. Many weak–moderate associations; controlling for many 3rd variables, blue-collar defendants more likely than white-collar defendants to receive death penalty; victim and defendant race not significantly associated. Reduced set of 25 variables predicted sentence with 88% accuracy.
L. B. Mills (1973)	K = 485 N = 6/12 Archival	Civil; MI	PROC7 CASE22	TIME, A, L	No impact of jury size on liability verdicts. Percentage of verdicts for plaintiff varied by case type for 6-person juries but not 12-person juries. Six-person jury awards tended to be larger and more variable for auto negligence cases.
Beiser & Varrin (1975)	K = 180 N = 6/12 Archival	Civil; US (ME, MA, NH, RI)	PROC7 PART14 CASE22	TIME, A, L	Larger juries more likely to find for plaintiff, took longer to deliberate, and awarded higher damages.

(*Table 5 continues*)

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Table 5 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Eakin (1975)	K = 20 N = 6/12 Students	Audio; min = ?; Defamation	PROC7 DELB27	PART, POLL, TIME, A	Strong effect of confederate foreperson advocacy on damages regardless of jury size; confederates more effective in arguing for lower (as opposed to higher) damage awards.
Valenti & Downing (1975)	K = 40 N = 6/12 Students	Booklet/audio; 60 min; Murder	PROC7 CASE17	G	Evidence strength interacted with jury size to affect jury verdicts. Larger juries deliberated longer and hung more often, especially when apparent guilt was high. Smaller juries convicted more often only when apparent guilt was high.
Gleason & Harris (1976)	K = 6 N = 6 Students	Booklet; 15 min; Robbery	PART12 PART14 DELB27	G	No impact of defendant socioeconomic status on postdeliberation verdicts. Deliberating jurors rated defendant less guilty; jurors supporting death penalty rated defendant more guilty than those opposed.
Hans & Doob (1976)	K = 30 N = 4 Mixed	Booklet; min = ?; Burglary	PART14 DELB27	CONT, G	Strong impact of defendant's criminal record on jury verdicts (40% more convictions) but not individuals. Past record had large impact on content of deliberation and increased the salience of negative evidence.
Snortum et al. (1976)	K = 20 N = 6/12 Students	Booklet; 25 min; Theft	PROC7 DELB27	G	General leniency shift after deliberation in juries without a confederate arguing strongly for conviction; severity shift for juries with confederate.
J. H. Davis, Kerr, et al. (1977)	K = 91 N = 6 Students	Video; 30 min; Rape	PROC9 PART15	TIME, SDS, G	No impact of victim consequence or sentence severity on verdicts (no jury convicted). Juries exposed to incongruent scenarios regarding victim suffering and sentence length took longest to deliberate. "2/3 majority otherwise not guilty." SDS supported.
Hamilton (1978)	K = 42 N = 6 Eligible	Audio/slide; 60 min; Murder	PROC8 PART14	G, S	Restricting verdict options resulted in fewer convictions, especially when defendant's action ordered by higher ranking superior. No impact of either IV on sentence.
Kaplan & Miller (1978)	K = 8 N = 12 Eligible	Live; 10 min; Battery	PART16 CASE17	CONT, G	Predeliberation guilt ratings strongly affected by evidence strength and affected somewhat by annoying attorney/judge behavior. Deliberation produced polarization shift in direction consistent with evidence; bias due to 3rd-party behavior reduced greatly by deliberation.
Sonaike (1978)	K = 13 N = 6 Students	Video; min = ?; Auto negligence	CASE20 DELB27	A, L	Jury awards tended to be more extreme than mean juror predeliberation award. Mode and median were better predictors of final award amount than mean.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Bridgeman & Marlowe (1979)	K = 10 N = 12 Interview	Criminal; CA	CASE24 DELB27	FORE, SDS, G	Verdict preferred by majority on 1st ballot always selected. Most jurors decided opinion before trial concluded; 70% did not change opinion during deliberation, and 95% stayed same after 2nd ballot. Witness and defendant testimony seen as most important. Forepersons seen as active and influential but not the cause of verdict preference change; most often selected by spontaneous nomination.
M. A. Myers (1979)	K = 201 N = ? Archival	Criminal; IN	PART14 PART15 CASE17 CASE 21	G	Convictions more likely when defendant or accomplice testified, weapon recovered, more witnesses testified, less serious charge, victim younger, defendant unemployed, or defendant had prior conviction. Variable set accounted for 27% of variance in verdicts. Verdicts unrelated to expert testimony, eyewitness identification, or type of counsel.
Flango (1980)	K = 4 N = 12 Field	Mixed; US (IL)	PROC5 CASE24	NOTE, TIME,	100% of jurors given the opportunity to take notes did so and generally reported their case to be less difficult than jurors not allowed to do so. On average, jurors took 13 pages of notes. Anecdotal evidence that note-taking jurors were more participative and influential.
Hosch et al. (1980)	K = 8 N = 6 Mixed	Live; ∞; Burglary	PART10 CASE21	CONT, TIME, G	No impact of jury type (all juries acquitted). Juries hearing expert testimony spent more time talking about eyewitness identification and witness testimony during deliberation and reported eyewitness testimony to be less important.
Nagao & Davis (1980)	K = 24 N = 6 Students	Booklet; min = ?; Rape, vandalism	PART13 CASE22	G	Compared with novice jurors, jurors who served on a prior vandalism case were less likely to vote for conviction in a subsequent rape case, but jurors who served first on a rape case were more likely to vote for conviction in a subsequent vandalism case.
Wasserman & Robinson (1980)	K = 23 N = 4–6 Students	Booklet; audio; 15 min; Negligence	PART14 CASE24	A	Damage awards higher when defendant identified as corporation as opposed to individual and when jury exposed to emotion-arousing evidence in penalty phase. Group polarization evident in jury awards, with jury awards larger than mean juror awards.
J. H. Davis et al. (1981)	K = 51 N = 6 Students	Video/audio; 30 min; Rape	PROC9 DELB27	SDS, G, S	Slight tendency for juries to convict more when responsible for verdict as well as sentencing. SDS characterized by majority influence plus asymmetrical defendant protection bias.
Foss (1981)	K = 28 N = 12 Students	Audio; >30 min; Murder[LIC]	PROC6 CASE17	SDS, TIME, G	Juries operating under 5/6 decision rule twice as fast and much less likely to hang than unanimous juries; no impact of decision rule on verdicts. Juries exposed to low-ambiguity evidence convicted more and hung less.

(*Table 5 continues*)

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Table 5 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Kerr (1981)	$K = 43$ $N = 6$ Students	Booklet; 10/30 min; Armed robbery	PART10 PART13 CASE22	SDS, SHIFT, G	No impact of jury sex or experience on preference shifts. Shifts in preference distribution a function of majority, leniency, and momentum effects. Juries tended to move toward verdict favored by majority (especially in second half), toward acquittal, and in the same direction as the previous shift. Shifts occurred faster as juries neared consensus. First shift better predictor than predeliberation preference distribution.
Sealy (1981); Sealy & Cornish (1973a[a], 1973b[b])	$K = 56$ $N = 12$? Eligible	Audio; 100 min; Theft, rape[LIC]	PROC1 PART10 PART11 PART12 PART14 CASE19	**C, G**	[a]Defendant's admissible prior record on similar charges produced more postdeliberation preferences for guilt; instruction to ignore record reduced. Weak impact of standard of proof on juror postdeliberation verdicts. [b]Juror demographic, personality, and attitudinal characteristics weakly related to verdict preferences before and after deliberation.
Thompson et al. (1981)	$K = 36$ $N = 6$ Students	Video; 65 min; Murder	PROC3 CASE19	G	Strong leniency effect on jury verdicts produced by deliberation; no impact of evidence admissibility or judicial instructions. Juror postdeliberation verdicts exhibited leniency bias after exposure to proacquittal inadmissible evidence (but not proconviction).
Foley & Powell (1982)	$K = 393$ $N = 12$ Archival	Criminal; FL; Capital	PART14 PART15 CASE17	G, S	Defendant gender, race of victim, and several case characteristics related significantly to jury sentencing decisions. Women and defendants convicted of killing an African American less likely to receive death penalty, although latter effect only marginally significant when case characteristics controlled.
Baldus et al. (1983)[a]; Barnett (1985)[b]	$K^a = 724$ $K^b = 606$ $N = 12$ Archival	Criminal; GA; Capital	PART10 PART14 PART15 CASE24	S	[a]Legally relevant case characteristics (particularly number of aggravating factors) and defendant's prior record associated with sentences using multiple regression analysis. Controlling for hundreds of case characteristics, killers of Whites 4.3× more likely to receive death sentence than killers of Blacks. [b]Reanalysis of data using homogenous subgroups. Likelihood of death primarily a joint function of victim status (stranger), crime deliberateness, and crime heinousness. Defendants with prior serious conviction somewhat more likely to receive death, as were killers of White victims under certain conditions. "Rural" juries somewhat more likely to impose death.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Hastie et al. (1983)	K = 69 N = 12 Eligible	Video; ∞; Murder[LIC]	PROC6 PART10	CONT, FORE, PART, SDS, SHIFT, TIME, **C, G, R**	Small effect of decision rule on verdicts and large effect on deliberation time. Non-unanimous juries tended to deliberate less, hang less, choose harsher verdict options, and finish with holdout jurors. Deliberation focused on testimony and produced a severity shift toward actual verdict; participation varied widely and negatively related to faction size. All jurors displayed relatively poor recall of evidence and judge's instructions, but jury-level memory better. Forepersons spoke 3× more than average juror. Weak relationships between juror characteristics, predeliberation preferences, and deliberation behavior.
Severance et al. (1984)	K = 7 or 14 N = 6 or 12 Actual	Video; 30 min; Burglary	PROC4 DELB27	**C, G**	Simplified instructions produced slightly better comprehension scores than pattern instructions for non-deliberating jurors; modestly better scores for deliberating jurors.
Tanford & Penrod (1984); Tanford (1985)	K = 100 N = 6 Eligible	Video; min = ?; Burglary, assault, robbery	PROC3 PROC9 PART14/ CASE22 CASE24	G, **R**	Conviction rate on focal charge twice as high in joined trial compared with separate trial. More intrusion errors related to testimony recall in joined trial and when charges were similar. Judicial instructions intended to prevent bias ineffective.
Horowitz (1985)	K = 45 N = 6 Eligible	Audio; 60 min; Murder, DUI homicide, euthanasia	PROC2 CASE22	CONT, G	Juries receiving strong and explicit nullification reminder acquitted more in euthanasia case but less in DUI homicide case; no impact of instruction on verdicts in murder case. Juries receiving strong nullification instruction spent less time discussing evidence and more time on defendant characteristics and personal experiences.
Kerr & MacCoun (1985)	K = 62 N = 3/6/12 Students	Booklet; 10 min; Armed robbery (9 scenarios)	PROC7 CASE22 DELB26	SDS, SHIFT, TIME, G	Larger juries (6 and 12) more likely to hang and took longer to deliberate; no impact of jury size on convictions. No effect of polling secrecy on hung-jury rate when cases were clear, but smaller juries hung less in close cases with public polling whereas larger juries hung more. SDS, social transition schemes, and transition speed were similar for 6- and 12-person juries. Preference shifts were a function of relative and absolute faction size.
Werner et al. (1985)	K = 206 N = 4/8 Archival	Criminal; UT	PROC7 PART13 PART14 CASE17 CASE22 CASE24	TIME, G	Number and proportion of experienced jurors unrelated to jury verdicts (r = .08 for both), but proportion of experienced jurors moderately related to proportion of count convictions (r = .24). Number of defense witnesses, jury size, and severity of primary charge best predictors of acquittal (all positively related); r^2 = .11.

(*Table 5 continues*)

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Table 5 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Horowitz & Seguin (1986)	K = 59 N = 12 Eligible	Audio; min = ?; Murder	PROC9 PART12	G, S	Bifurcated juries tended to convict more than juries empaneled for trial only; death-qualified juries convicted more and opted for death penalty more than non-death-qualified juries. Death-qualified, bifurcated juries had highest conviction rate and most death sentences.
Savitsky & Lindblom (1986)	K = 27 N = 4–7 Students	Video; 120 min; Murder[Lic]	PROC8 CASE17	TIME, G	Strong impact of evidence strength across 2 versions of trial, but interaction with verdict options as well. With high apparent guilt, all juries convicted with traditional options, most convicted when a 3rd option (not guilty by reason of insanity [NGRI]) was available, but all chose guilty but mentally ill (GBMI) when 4 options were available and deliberation longer. With low apparent guilt, all juries acquitted with 2 options, all chose NGRI when available as a 3rd option, and most preferred the GBMI to the NGRI when 4 options were available.
* Peterson (1987)[a]; Chin & Peterson (1985)[b]; Peterson et al. (1987)[c]	K^a = 29,401 K^b = 9,000+ K^c = 23,900 N = ? Archival	Civil; CA, IL	PART14 PART15 CASE22 CASE23 CASE24	A, L	[a]Summarizes 25 years of archival data gathered primarily from Cook County and San Francisco. Plaintiff success rates and damage awards varied substantially as a function of time, case type, jurisdiction, and litigant status. Plaintiff win rates for most case types tended to increase over time, although number of trials varied irregularly in each jurisdiction and fault laws changed in both states. Median damage awards held steady in Cook County but tripled in San Francisco; mean damage awards increased in both jurisdictions by a factor of 4–5. [b]Damage awards varied as a function of litigant status and plaintiff injury severity. Corporate defendants assessed higher damages even when controlling for case type; discrepancy greater in proportion to plaintiff injury. Black litigants disadvantaged in Cook County whether plaintiff or defendant. [c]Punitive awards were rare and usually modest, but mean and median increased dramatically over time in both counties. Likelihood varied as a function of case type (much higher for business contracts and intentional torts) and jurisdiction. Punitive damages generally proportional to compensatory damages, somewhat higher when defendant was a business.
Visher (1987)	K = 38 N = 12 Field/ interview	Criminal; min = ?; Sexual assault	PART10 PART12 PART14 PART15 CASE18 CASE20	G	In a hierarchical regression, evidence and case characteristics accounted for 34% of the variance in jurors' reports of their predeliberation verdict preferences, whereas victim and defendant characteristics accounted for another 8% and juror characteristics and attitudes another 2%. Best individual predictor was juror's assessment of victim's behavior.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Borgida & Park (1988)	K = 24 N = 5–7 Students	Video; 30 min; Drugs	PROC1 PART14	**C, G, R**	Compared 2 definitions of entrapment. More convictions when juries told of defendant's criminal record, especially with lenient test. Poor comprehension of strict test; somewhat better for lenient test. Recall of case facts good in both instructional conditions.
Greene (1988)	K^1 = 21 K^2 = 24 N = 5–9 Students	Video; 30 min; Assault	PROC4 CASE17	**C**, G	Weak effect of evidence strength (defendant identification) in both studies. [1]Jurors receiving pattern instruction on eyewitness reliability no more knowledgeable than those who did not. [2]Jurors exposed to simplified instruction showed only slightly better comprehension of content.
Horowitz (1988)	K = 144 N = 6 Eligible	Audio; min = ?; DUI homicide, euthanasia, weapons	PROC2 PART16 CASE22	CONT, G	Juries acquitted more when reminded of nullification ability by judge and with a sympathetic defendant (i.e., euthanasia, weapons) when reminded by defense, but juries convicted more with an unsympathetic defendant (i.e., DUI, homicide). Prosecutor challenge reduced impact, especially in euthanasia case. Discussion mediated effects of trial characteristics on verdicts; relationship between evidence and verdict varied across trial.
Horowitz & Bordens (1988)	K = 66 N = 6 Eligible	Audio/slide; min = ?; Toxic tort	PROC9 PART15	CONT, A, L	Presence of "outlier" plaintiff with very serious injury, and size of injured plaintiff population, associated with larger punitive damages; outlier plaintiff increased variability of punitive damages. No impact of either on compensatory damages. Plaintiff with least injury benefited from unitary trial structure.
MacCoun & Kerr (1988)	K^1 = 60 N^1 = 4 Mixed K^2 = 89 N^2 = 4 Students	[1]Video; 30 min; Armed robbery [2]Audio; 60 min; Auto theft	PART10 DELB30	SDS, TIME, G	[1]Leniency bias evident in both student and community juries; somewhat stronger for student juries. Community juries tended to deliberate longer and hang more often. [2]Leniency bias occurred in evenly divided juries receiving "reasonable doubt" standard but not in juries given "preponderance of the evidence" standard.
Tanford & Cox (1988)	K = 44 N = 6 Mixed	Video; 120 min; Product liability	PART14 CASE20	L, **R**	No impact of defendant's past conviction for perjury or dishonest character evidence on jury verdicts or recall of trial testimony.
Bovbjerg et al. (1989)[a]; Bovbjerg et al. (1991)[b]; Sloan & Hsieh (1990)[c]	K^a = 898 K^b = 8,388 K^c = 416 N = ? Archival	Civil; FL, MO; [a,b]Personal injury [c]Medical malpractice	PART14 CASE22[b]	A, L	[a]Severity of plaintiff injury on 9-point National Association of Insurance Commissioners scale was strongly and positively associated with damage awards, but substantial variance remained after controlling for injury severity. [b,c]No unique findings.

(*Table 5 continues*)

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Table 5 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Duggan et al. (1989)	K = 36 N = 6 Eligible	Video; 45 min; Sexual abuse	PART10 PART14 PART15 CASE17	CONT, G, S	More convictions when witness testimony corroborated victim testimony; jury verdicts not influenced by victim age or defendant relationship (stepfather vs. neighbor); 2/3 of juries hung. Deliberation focused on victim's age, credibility, and responsibility. Male jurors more dominant and task-oriented.
Horowitz & Bordens (1990)	K = 128 N = 6 Eligible	Audio; ∞; Toxic tort	PROC9 PART15 CASE24	CONT, A, L, %	Juries in unitary trial structure more likely to find defendant caused plaintiff injury and assign liability but assigned less responsibility and awarded fewer compensatory damages compared with separate trials. Lower damages also resulted when liability evidence presented first as opposed to general causation evidence.
Keil & Vito (1990); Keil & Vito (1989)	K = 106 N = 12 Archival	Criminal; KY; Capital	PART14 PART15 CASE17	S	Barnett's (1985) murder seriousness index was moderately associated with likelihood of death sentence. With several case characteristics controlled for, including Barnett's (1985) index, KY juries were more likely to sentence to death Blacks who killed Whites at all levels of murder seriousness.
Kramer et al. (1990)	K = 94 N = 6 Mixed	Video; 60 min; Armed robbery	PROC3 PROC9 CASE19	CONT, SDS, G	Pretrial publicity bias magnified after deliberation. Juries exposed to negative emotion-laden pretrial publicity were 3× more likely to convict; juries exposed to factual publicity tended to convict less when trial was delayed, more when trial was immediate. Some evidence of severity bias for juries exposed to emotion-laden publicity without a strong majority. No impact of judicial instruction to ignore publicity.
Snortum et al. (1990)	K = 406 N = ? Archival	Criminal; CA, CO, MA; Drunk driving	PART14 CASE17	G	Convictions moderately related to amount and quality of evidence (i.e., field sobriety tests and blood alcohol content); defendant demographics did not add significant variance.
Tindale et al. (1990)	K = 181 N = 3–6 Students	Video; 20 min; Attempted murder	PROC7 DELB27	G	Tested 3 formal prediction models for final verdicts. Best model was proportion of initial supporters, but no model did particularly well. Majority influence asymptoted at 3 supporters; 2-person minorities favoring not guilty much more successful than lone dissenters.
Gross & Syverud (1991)	K = 529 N = ? Archival	Civil; CA	PART14 CASE22 CASE24	A, L	Plaintiff win rate varied considerably by case type. Only 15% of trials resulted in win–win situation where jury award fell between final plaintiff demand and defendant offer.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Kameda (1991)	$K^1 = 74$ $N^1 = 6$ $K^2 = 62$ $N^2 = 4$ Students	Booklet; 20 min; Product liability, employment	PROC6 CASE22 CASE24 DELB25	SDS, L	[1]Deliberation style interacted with verdict criteria. With disjunctive criteria, more liability verdicts resulted when jurors instructed to reach verdict preference before deliberation; with conjunctive criteria, more liability verdicts resulted when jury discussed each criterion without jurors making previous judgments. [2]Interaction replicated in 2nd study with case held constant and different jury size.
Kerwin & Shaffer (1991)	$K = 36$ $N = 6$ Students	Booklet; 40 min; Euthanasia	PROC2 PART11	CONT, G	Juries tended to acquit more often when reminded of nullification ability. Verdicts of high-dogmatic juries heavily influenced by presence–absence of a nullification reminder; verdicts for low-dogmatic juries unaffected by content of judicial instructions.
S. P. Klein & Rolph (1991)	$K = 496$ $N = 12$ Archival	Criminal; CA; Capital	PART14 PART15 CASE17	S	Used classification tree algorithm to cluster cases; race of defendant and race of victim variables did not improve classification accuracy in either cross-validated or full model. White defendants somewhat more likely than Black defendants to receive death sentence.
Spanos et al. (1991–1992)	$K = 36$ $N = 4$–8 Students	Audio; 90 min; Sexual assault	PART12 CASE21	G	Expert testimony on rape myths affected jury verdicts. Conviction rate much higher when expert testimony elicited in direct examination than when absent or when cross-examination occurred.
Webster et al. (1991)	$K = 10$ $N = 4$–7 Students	Transcript; 20 min; Murder	PART15 CASE20	G	Juror postdeliberation verdicts unaffected by missing witness when no mention made of absence by prosecution; when prosecutor noted absence and judge invited inference, jurors more likely to favor conviction when missing witness was peripheral (i.e., coworker) as opposed to central (i.e., close friend).
Diamond & Casper (1992)[1]; Diamond et al. (1996)[2]	$K^1 = 70$ $K^2 = 58$ $N^1 = 6$ $N^2 = 12$ Actual	Video; 75 min; Price-fixing Video; 75 min; Murder	PROC3 CASE21	CONT, FORE, PART, A[1], G[2]	[1]Juries more likely to follow judicial instructions when accompanied by explanation. No impact of expert testimony (statistical vs. concrete) on awards. Median juror predeliberation value best predictor of jury award (mean also good). Strong correlation (.44) between foreperson's predeliberation award and final jury award. Seat location, first to speak, case-relevant knowledge, and occupation were best predictors of foreperson selection. Jury awards 26% higher than mean juror predeliberation awards. Jurors initially favoring lower awards less likely to speak. [2]Attorneys mentioned on average 4× during deliberation; most references to substantive points and not personal attributes. Reactions to expert testimony differed as a function of statistical model presented (time series vs. benchmark). Impact of unsubstantiated expert testimony not affected by strength of cross-examination (juror level).

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Table 5 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Ostrom et al. (1992)	K = 650 N = ? Archival	Civil; ? states	PART14 PART15 CASE22	A, L	Considerable variation in plaintiff success rate by case type (higher for contract-related, lowest for medical malpractice) and litigant status (individual plaintiff vs. individual defendant most frequent). Likelihood of individual plaintiff winning against a business contingent on business type; highest against insurance company, moderate against corporation, lowest against government. Damage awards differed by case type and litigant status as well.
Rustad (1992)	K = 355 N = ? Archival	Civil; National; Product liability	PART15 CASE24	A	Conducted extensive search for all product liability jury trials in U.S. that produced punitive damage awards between 1965 and 1990. Overall, 27% of awards associated with asbestos (32% in 1980s) and 20% related to vehicles. Distribution of punitive awards highly skewed.
Taragin et al. (1992)	K = 988 N = ? Archival	Civil; NJ; Malpractice	PART15 CASE17	A, L	Jury verdicts moderately related to independent physician ratings of case strength. Plaintiffs won 21% of "defensible" cases, 30% of "unclear" cases, and 42% of "indefensible" cases. Severity of plaintiff injury not correlated with whether damages awarded but positively associated with amount of award.
Gabora et al. (1993)	K = 60 N = 5–8 Students	Video; 70 min; Sexual abuse	PART10 PART12 PART15 CASE21	G	Convictions more likely with younger victim in a child sexual abuse (age 13 vs. 17) and when prosecution expert gave case-specific testimony compared with general testimony or no testimony. Women tended to vote for conviction more than men before and after deliberation but less bias afterward.
Kasian et al. (1993)	K^1 = 40 K^2 = 60 N = 5–8 Students	Video; min = ?; Domestic homicide	PART14/ CASE17 CASE21	G	[1]No impact of expert testimony or defendant plea on jury verdicts, but expert testimony coincided with men becoming more lenient and women more severe after deliberation. [2]Verdicts influenced by defendant injury caused by victim and defendant plea; acquittal more likely with severe abuse and when defendant pleaded automatism rather than self-defense.
Smith & Kassin (1993)	K = 63 N = 6 Students	Transcript; 50 min; Aggravated assault	PROC3 DELB27	SDS, SHIFT, TIME, G	No impact on verdicts of dynamite charge given after 20 min of deliberation in deadlocked juries, but minority faction jurors changed votes at a higher rate afterward, and subsequent deliberation was briefer when initial majority favored conviction. Final verdicts strongly related to initial preference distribution. Fewer informational statements over time in dynamite juries, especially among minority jurors.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Heuer & Penrod (1994a[a], 1994b[b])	K = 160 N = ? Field	Mixed; National	PROC5 CASE24	TIME, **R**, V	[a]No impact of juror question-asking or note-taking on jury verdicts or judge–jury verdict agreement. 87% of jurors allowed to take notes did so. Question-asking seen as helpful for clarifying complicated testimony or complex legal issues; juror note-taking had no positive effects. [b]Trial complexity clearly multi-dimensional. Special verdict forms seen as very helpful by jurors; judge's comments and pattern instructions were not.
Kerwin & Shaffer (1994)	K = 48 N = 4–6 Students	Booklet; 40 min; Armed robbery	CASE19 DELB27	G	Verdicts of deliberating juries were appropriately influenced by judicial instructions regarding the admissibility of evidence, whereas the verdict preferences of individual jurors were not.
Bourgeois et al. (1995)	K^1 = ? K^2 = ? N = 3–4 Eligible	Audio; 20 min?; Toxic tort, malpractice	PROC4 PART15 CASE22 CASE24	$\mathbf{A}^1$, $\mathbf{L}^2$ **R**	[1]Preinstructed jurors awarded higher damages after deliberation and recalled evidence better than jurors not instructed or postinstructed. [2]Preinstruction increased verdicts for defense when testimony non-technical; increased verdicts for plaintiff when technical.
Daniels & Martin (1995)	K^1 = 20,137 K^2 = 55,008 N = ? Archival	[1]Civil; 11 states [2]Civil; 5 states	PART14 PART15 CASE22 CASE23	A, L	[1]Results very similar to Daniels & Martin (1990). Overall plaintiff rate near 50% but varied considerably by jurisdiction and case type (highest for auto accidents and contracts, lowest for medical malpractice). Punitive damages rarely awarded, usually modest in size, most likely to occur in cases of physical or financial harm (as opposed to emotional harm or property damage). Majority of cases related to surgery for medical malpractice (62%), work settings for product liability (52%). For both medical malpractice and product liability, plaintiff success rates and damage awards positively related to injury severity (up to "death"). [2]No consistent temporal patterns for plaintiff success rates or awards, in general or by case type, in 21 years of longitudinal data.
Rustad & Koenig (1995)	K = 270 N = ? Archival	Civil; National; Medical malpractice	PART14 PART15 CASE24	A	Conducted extensive national search of punitive awards in U.S. jury trials involving medical malpractice cases between 1963 and 1993. Steady increase in percentage of corporate defendants during interval. Plaintiff age moderately associated with type of malpractice. Distribution of punitive awards highly skewed.
Shaw & Skolnick (1995)	K = 52 N = 5–7 Students	Audio; 15 min; Auto theft	PROC3 PART14	G	Juries given strongly worded ("prohibitive") instruction to ignore defendant demographic information convicted more than juries receiving less strident ("informative") instruction. Predeliberation bias against White defendant eliminated by deliberation; no effect of defendant race on jury verdicts.

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Table 5 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Chadee (1996)	K = 60 N = 12 Eligible	Video; 90 min; Murder[LIC]	PART10 CASE17	CONT, G	Main effect of evidence strength; jury race composition interacted with evidence strength such that in-group racial bias present in terms of discussion content and verdict when evidence strength was weak but not when strong.
Horowitz & Kirkpatrick (1996)	K = 80 N = 6 Eligible	Audio/slide; ∞; Murder	PROC1 CASE17	CONT, POLL, TIME, G	Strong main effect of evidence strength on jury verdicts, plus interaction with "reasonable doubt" definition. Juries given "firmly convinced" reasonable doubt definition reported higher required certainty, convicted less often with weak evidence, spent more time discussing instructions and evidence, and took fewer polls than other definitional conditions. All instructions regarding reasonable doubt produced relatively low subjective certainty requirements.
Ostrom et al. (1996)[a]; Eisenberg et al. (1997)[b]	K^a = 11,715 K^b = 177 N = ? Archival	Civil; 11 states	PART14 PART15 CASE22 CASE23	A, L	[a]Overall win rate near 50%, considerable variation by case type and jurisdiction, slight variation by litigant status (somewhat higher vs. business for selected case types). Jury verdicts accounted for 2.7% of tort dispositions; individual versus individual most common litigant status, auto accidents and premises liability most common case types. Median awards modest in size but 3× larger when defendant was business. Mean award almost 9× larger than median on average. Punitive damages awarded in 6% of plaintiff victories, usually modest in size, most likely in contract cases (13%). [b]Punitive award level predicted by log of compensatory damages and type of defendant (higher for business than individual).
J. H. Davis et al. (1997)	K = 147 N = 6/12 Students	Video; 60 min; Product liability	PROC6 PROC7 DELB26	TIME, A	No effect of decision rule or polling format on awards; smaller juries deliberated faster and awarded larger damages. Juries with 2/3 majority rule deliberated faster than unanimity juries, especially for larger juries. Best prediction model for jury awards was median preferred value of individual jurors without considering most deviant outlier.
Baldus et al. (1998)	K = 384 N = 12 Archival	Criminal; PA; Capital	PART14 PART15 CASE17	S	Modeled prosecutorial and jury decisions at several points using victim race, defendant race, various case characteristics, and 4 separate measures of defendant culpability (number of aggravating factors, number of mitigating factors present, most salient aggravating factor, murder severity ranking). Moderately strong race of defendant effects obtained for all jury decisions, somewhat weaker race of victim effects at several points. With evidential support and defendant culpability controlled for, juries (a) more likely to find statutory aggravation when defendant Black and victim non-Black, (b) less likely to find mitigating factors when victim non-Black, and (c) gave less weight to mitigating factors when defendant Black. Racial disparities were heavily concentrated in midrange of defendant culpability scales.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Eisenberg et al. (1998)[a]; Eisenberg, Garvey, & Wells (1996)[b]; Eisenberg & Wells (1993)[c]; Garvey (1998)[d]	$K^a = 41$ $K^b = 43$ $K^c = 31$ $K^d = 41$ $N = 12$ Interview	Criminal; SC; Capital	PART10 PART12 PART14 PART15 CASE24	S	[a]Perceived viciousness, future dangerousness and lack of remorse positively related to death penalty. Remorse was a stronger predictor of sentence in cases with low viciousness. [b]Jurors felt responsible, free to exercise discretion, and did not believe defendants would be executed if sentenced to death. [c]High level of misunderstanding regarding imposition of death sentence. Expected prison sentence positively correlated with imposition of life in prison. Initially divided juries tended to impose death penalty. [d]Perceived characteristics of crime related to jurors' perceptions of remorse.
Goodman et al. (1998)	$K = 88$ $N = 9$–12 Eligible	Live; 30 min; Child molestation	PART10 PART15 CASE17 CASE24	G	No impact of victim age, medium of victim testimony (closed-circuit vs. open court), or juror gender. Moderate effect of defendant behavior; confederates who enacted guilty behavior convicted more often but many false acquittals and high rate of hung juries. Child witness testifying by closed-circuit perceived as least credible.
Hazelwood & Brigham (1998)	$K = 40$ $N = 4$ Students	Booklet; 60 min; Drugs[LIC]	PROC5 PART14/ CASE17	G, S	Very large effect of evidence strength on jury verdicts. Anonymous juries tended to convict more often (15%), especially when evidence was overwhelming. Anonymity not related to sentence severity, but anonymous juries more often imposed the harshest punishment.
Landsman et al. (1998)[a]; Diamond et al. (1998)[b]	$K = 120$ $N = 6$ Eligible	Video; 75 min (+35 min); Toxic tort	PROC9 PART10 PART12 CASE17	A, **C**, L, **R**	[a]No impact of trial bifurcation (liability vs. punitive) on jury verdicts; jurors hearing all evidence somewhat more likely to judge plaintiff liable, but no effect on juries. Moderate effect of case strength on jury verdicts (30% conviction rate for strong case vs. 12% for weak). Deliberation produced leniency effect. 92% of juries that judged plaintiff liable also awarded punitive damages, but punitive damage awards almost 4× greater in bifurcated condition. [b]Jury award variability much less than juror predeliberation variability but still relatively high for pain and suffering compared with economic damages. Plaintiff ad damnum appeared to act as anchor.

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Table 5 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Sundby (1998)[a]; Sundby (1997)[b]	K^a = 37 K^b = 36 N = 12 Interview	Criminal; FL; Capital	PART14 CASE20 CASE21	S	[a]Presented interview data on defendant courtroom behavior and penalty-phase strategy. Poor defendant attitude (nonchalance, arrogance, boredom) and denial strategy strongly linked to death sentence. "Denial" strategy successful only when circumstantial evidence and multiple defendants present; "admission" strategy usually led to life sentences. [b]Presented interview data on witness impact (including expert). Professional experts called in most cases. Jurors generally reported lay expert testimony to be most influential; skeptical of professional experts, family members, and friends. Professional experts often viewed as hired guns; those who applied principles to case in concrete fashion viewed as most helpful to their side's case.
Vidmar (1998)	K = 2,146 N = ? Archival	Civil; FL, NY, CA; Malpractice	PART15 CASE23	A, L	Plaintiff success rate and median award varied by state (substantially higher in NY). Severity of plaintiff injury related consistently to size of damage awards. In all 3 states, general damages amounted to 54%–60% of total award.
Chappelear (1999); Merritt & Barry (1999)	K^a = 1,197 K^b = 158 N = 8 Archival	Civil; OH	PART14 PART15 CASE22 CASE24	A, L	[a]Only 1% of lawsuits filed progressed to jury trial. Tort cases most common; auto negligence largest sub-category. Punitive damage awards rare and modest. Settlement rejection "errors" (defined retrospectively) common on both sides, but jury awards generally closer to defendant's last offer than plaintiff's last demand. [b]In medical malpractice and product liability cases, severity of plaintiff injury moderately related to receiving award (permanent, debilitating injuries least likely to be compensated) and strongly related to award amount.
Daudistel et al. (1999)	K = 317 N = ? Archival	Criminal; TX	PART10 PART14 PART15 CASE22	G, S	Defendant ethnicity, crime type, and interaction unrelated to verdicts. Characteristics of crime were best predictors of sentence, but Anglo defendants given longer sentences than Hispanic defendants across 5 crime types. For Anglo defendants, sentence was positively correlated with number of Hispanic jurors.

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Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Greene, Johns, & Bowman (1999)	K = 64 N = 5–8 Eligible	Audio/video; 45 min; Auto negligence	PART15 CASE17	A, L, %	Liability and responsibility judgments were related strongly to the defendant's conduct but also related moderately to severity of plaintiff injury. Juries more likely to find defendant liable and responsible when defendant conduct was careless as opposed to reasonable and when plaintiff injury was mild as opposed to severe. Deliberation did not reduce contaminating influence of injury severity on liability verdicts.
Hans et al. (1999)[a]; Hans (1998)[b]	K^a = 190 K^b = 125 N = ? Field	Civil; AZ	PROC5 PART14 PART15 CASE17	L	[a]70% of jurors allowed to discuss case with other jurors while trial was in session did so. Jurors who discussed ongoing trial were very positive and felt the activity to be helpful to their understanding of the instructions and evidence. Judges were fairly positive; attorneys and litigants had mixed reactions. [b]Strength of evidence (as rated by judge) moderately related to win rates. Plaintiffs won 85% of cases when evidence favored their position, 62% when evidence seen as evenly balanced, but only 37% when evidence favored defendant. Some evidence of anti-business bias; plaintiff win rates 8%–9% higher against businesses than individuals when evidence evenly balanced or favored defense (but 7% lower when evidence favored plaintiff).
Moller et al. (1999)	K = 37,583 N = ? Archival	Civil; AL, CA, IL, MO, NY, TX	PART15 CASE22 CASE23	A, L	Overall plaintiff win rate near 50% but considerable variation in plaintiff success rate as a function of case type (highest in contract disputes, lowest in medical malpractice). Median ratio of punitive to compensatory awards was 1.4, except much higher in AL. Punitive damages varied considerably by case type and jurisdiction. Likelihood of punitive awards substantially higher in CA and cases involving financial injury or intentional torts. Very strong correlation between log of compensatory award and log of punitive award.
J. E. B. Myers et al. (1999)	K = 42 N = ? Field	Criminal; CA, AZ; Sexual abuse	PART14 PART15 CASE20	G	Strong ceiling effect (92% of juries convicted); jury verdicts not significantly related to victim age, duration of abuse, or abuser's relationship to victim. All trials involved live testimony by child as well as hearsay testimony by adult.

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Table 5 (*continued*)

Study/Reference	Sample	Trial	IVs	DVs	Primary findings
Niedermeier et al. (1999)	$K^1 = 114$ $N^1 = 4$ Students $K^2 = 64$ $N^2 = 4$ Mixed	Booklet/ audio; 25 min/60 min	PROC3 PROC8 PART14 PART15	G, S	[1]Tendency for more convictions under standard instructions (compared with nullification reminder) and lighter mandatory sentence. [2]Fewer convictions with nullification reminder; more leniency shown to higher status defendants when they didn't display remorse; opposite pattern for low-status defendants.

Note. Sample codes: K = number of juries in sample; N = size of juries ("/" indicates jury size varied systematically); Actual = individuals reporting for actual jury duty and not seated on a jury, or actual jurors serving extended term; Survey = survey of ex-jurors; Interview = interviews with ex-jurors; Students = university students; Archival = data obtained from court records; Mixed = combination of participant sources; Eligible = jury-eligible community residents; Field = correlational field study or field experiment. Superscript numbers indicate separate samples analyzed in the same article. Superscript letters indicate studies in which the same or overlapping data sets were analyzed in separate articles.
Trial codes: Audio = edited trial presented via audio playback; min = time allowed for deliberation (in minutes); Criminal = actual criminal trials; National = cases from all federal and state court systems; Live = trial performed for mock jury in actual courtroom; State abbreviations = state court system where data gathered from actual trials; Civil = actual civil trials; US = data gathered from federal district courts, with the corresponding state(s) indicated in parentheses; Booklet = brief trial summary presented in written format; Video = mock or real trial presented via video cassette player; Slide = visual images presented via slide projector; Mixed = combination of previous sources; LIC = lesser included charge; DUI = driving under the influence; Transcript = edited trial transcript presented in written format; ∞ = unlimited duration. Note that one or more particular charges were the focus of the study; these are listed last.
Independent variable (IV) codes: PART14 = defendant characteristics; CASE17 = strength of evidence; PART10 = juror demographics; PART15 = victim/plaintiff characteristics; PART16 = judge/attorney characteristics; DELB27 = miscellaneous; PART12 = juror attitudes/values; CASE19 = inadmissible material; PROC1 = legal definitions; CASE21 = expert testimony; CASE24 = miscellaneous; PROC7 = jury size; CASE22 = case type; PROC9 = trial structure; PROC8 = verdict/sentence options; CASE20 = witness testimony; PROC5 = juror involvement; PART13 = juror experience; PROC6 = assigned decision rule; PART11 = juror personality traits; PROC3 = general instructions; PROC4 = simplified instructions; PROC2 = nullification reminders; DELB26 = deliberation polling; CASE23 = jurisdiction; CASE18 = technical evidence; DELB30 = miscellaneous; DELB25 = deliberation structure. A slash separating two IV codes indicates confounding.
Dependent variable (DV) codes: CONT = deliberation content; A = damage award; L = judgment of liability; SDS = social decision schemes; G = judgment of guilt; PART = juror participation; FORE = foreperson characteristics; R = recall of evidence; S = sentence; TIME = time spent in deliberation; POLL = no. of polls taken; NOTE = juror note-taking; SHIFT = juror verdict preference change; C = comprehension of instuctions; % = percent responsibility; V = mixed verdicts (G & L). DVs in boldface type indicate variables analyzed at the individual level.
*Rand has published numerous analyses of archival data gathered largely from Cook County, Illinois and San Francisco, California between 1960 and 1984. To the best of our knowledge, these three publications summarize the vast majority of relevant data and findings. Interested readers should also see Peterson and Priest (1982), Shanley and Peterson (1983), Peterson (1984), Priest and Klein (1984), and Hammitt et al. (1985).

Procedural Characteristics

Many aspects of trial functioning vary systematically by jurisdiction or are left to the discretion of the particular judge hearing the case. These aspects include instructions given to the jury, the degree of agreement required for a verdict, the number of jurors serving on the jury, acceptable behavior by the jury, the inclusion of lesser charges, the set of verdict options, and the manner and sequence in which courtroom events take place. Initial research in this area focused on the impact of variation in jury size and assigned decision rule; recent work has concentrated on the nature of the judge's instructions to the jury and the degree to which jurors are allowed to participate during the trial. Given the degree of discretion that many courts have, research on procedural topics has perhaps the best chance of yielding findings that can be translated into improvements in jury performance. Tables 1 and 5 provide summary information on empirical studies that examined procedural characteristics.

Definition of key legal terms. Five studies have examined the impact of varying the standard of proof the prosecution/plaintiff must meet for a jury to convict or assign liability to the defendant (Horowitz & Kirkpatrick, 1996; Kerr et al., 1976; Koch & Devine, 1999; MacCoun & Kerr, 1988; Sealy, 1981). In general, these studies suggest that the wording used to convey the standard of proof has a substantial impact on jury verdicts. Kerr et al. (1976) examined three definitions of reasonable doubt and observed a higher acquittal rate when reasonable doubt was defined broadly as any conceivable doubt, as opposed to doubts that could be articulated and supported. Focusing on postdeliberation juror votes, Sealy and Cornish (1973a) found that three versions of the standard of proof needed to convict ("beyond reasonable doubt," "sure and certain," and "balance of probabilities") yielded postdeliberation preferences for guilt that varied by 4–23% across conditions using a representative sample of London residents. Comparing the standards used in criminal and civil trials, MacCoun and Kerr (1988) observed a higher acquittal rate for juries given "reasonable doubt" as their standard in contrast to "preponderance of the evidence." Horowitz and Kirkpatrick (1996) examined five different supplementary definitions of reasonable doubt and found that one (involving the phrase "firmly convinced") was associated with more discussion of the evidence and instructions and fewer convictions when the prosecution's case was weak, but these differences disappeared when the case was strong. Building on Horowitz and Kirkpatrick's work, Koch and Devine (1999) found that wording associated with reasonable doubt interacted with the availability of a lesser verdict option to affect jury verdicts. When reasonable doubt was defined in terms of being "firmly convinced," there was no impact of lesser included charge on conviction rates; however, when reasonable doubt was not explicitly defined and the lesser included charge was available, more convictions occurred compared with when it was not available.

Although most studies in this category focused on the standard of proof, two studies found that varying the definition of key legal terms can also affect jury verdicts. In an early study associated with the Chicago Jury Project, Simon (1967) noted that jury verdicts were affected greatly by the definition of insanity, with more acquittals by reason of insanity when the Durham definition was used as opposed to the M'Naghten definition. In the second study, Borgida and Park

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(1988) found that the definition of entrapment interacted with the defendant's criminal record, such that a higher conviction rate was observed with a "subjective" (i.e., narrow) definition of entrapment when the jury was informed of the defendant's prior conviction. In sum, despite meaningful differences in content, the wording associated with the standard of proof appears to have a substantial impact on jury verdicts.

Jury nullification. Four studies have examined the impact of explicitly reminding juries of their right to disregard the evidence and "nullify" a law that seems unfair (Horowitz, 1985, 1988; Kerwin & Shaffer, 1991; Niedermeier, Horowitz, & Kerr, 1999). The primary finding from these studies is that reminding juries of their nullification capability makes them more likely to use it. Horowitz (1985) gave juries a detailed ("strong") nullification reminder, a brief reminder ("weak"), or did not remind them at all. Juries receiving the strong reminder spent less time reviewing the evidence, more time discussing personal experiences, and returned fewer guilty verdicts in a euthanasia case but more guilty verdicts when the case dealt with an automobile homicide in which the defendant was drunk. In a follow-up study, Horowitz (1988) again found that a detailed nullification reminder produced a higher acquittal rate in cases involving "victimless crimes" (i.e., euthanasia and illegal weapons possession) but more convictions when the defendant's behavior injured an innocent person (e.g., drunken driving). Kerwin and Shaffer (1991) found that the impact of a nullification reminder depended on the personality composition of the jury, with dogmatic juries returning more guilty verdicts than nondogmatic juries when informed of the possibility of doing so, but fewer guilty verdicts than nondogmatic juries without such a reminder. Finally, Niedermeier et al. (1999) observed that a nullification reminder produced more acquittals when a high-status defendant (i.e., doctor) showed no remorse, whereas low-status defendants were acquitted more often when they showed a great deal of remorse. In general, reminding juries of their power to disregard the evidence appears to yield more acquittals but may produce a backlash against the defense in cases in which societal norms are inconsistent with the defendant's actions and the defendant's culpability is clear. At the same time, the impact of a nullification reminder may be contingent on several factors, including the content (Horowitz, 1985) and source of the reminder (Horowitz, 1988), the nature of the crime (Horowitz, 1985, 1988), the status of the defendant (Niedermeier et al., 1999), and the composition of the jury (Kerwin & Shaffer, 1991).

Limiting instructions. A fundamental assumption underlying the jury system is the belief that juries are willing and able to follow the instructions of the presiding judge. Six studies have examined the impact of targeted instructions concerning what juries should or should not do. In general, limiting instructions have proven to be ineffective and have even been associated with a paradoxical increase in the targeted behavior. Specifically, juries have been found to confuse evidence during deliberation, display "spillover" bias against defendants in joined trials (Tanford & Penrod, 1984), consider pretrial publicity (Kramer, Kerr, & Carroll, 1990), and take into account the defendant's past criminal record (Shaw & Skolnick, 1995). The theme that emerges from these findings is that jurors are unwilling (or unable) to set aside information that appears relevant to determining what happened—regardless of what the law (and thus the judge) has to say about it. In contrast, jurors appear willing and able to attend to "neutral" instructions that

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provide information or encourage jurors to utilize existing information. Webster, King, and Kassin (1991) reported that jurors were responsive to a judicial invitation to draw inferences from the absence of a key witness, and Diamond and Casper (1992) noted an effect for judicial instruction related to the automatic adjustment of damage awards only when accompanied by an explanation. Finally, jurors appear to be responsive to judges' instructions when the content of the instruction is procedural in nature. Smith and Kassin (1993) found that evenly divided juries given the "dynamite charge" had shorter deliberations and hung less often, consistent with a higher rate of verdict preference change observed for minority-faction jurors. Given the overall pattern of findings and their consistency with the growing body of research on social cognition, there is strong support for the notions that juries will make inferences based on extralegal information they are exposed to and that judicial instructions to the contrary will have little effect.

"Juror-friendly" instructions. An emerging research stream associated with jury instructions has focused on the degree to which jurors comprehend their instructions and how that comprehension can be improved. It is clear from 20 years of research that jurors have difficulty wading through the technical jargon, convoluted logic, and stilted structure that characterize many pattern instructions (Lieberman & Arndt, 2000). Using objective paper-and-pencil measures, numerous studies have measured the comprehension level of mock jurors (Borgida & Park, 1988; Diamond & Levi, 1996; Elwork, Alfini, & Sales, 1982; Greene, 1988; Hastie et al., 1983; Hastie, Schkade, & Payne, 1998) or real jurors (Saxton, 1998). Typically, comprehension is assessed in both absolute terms (e.g., percent accuracy) and relative terms (i.e., by contrasting instructed conditions with uninstructed or nondeliberating conditions). Invariably, instructed jurors do not perform well in an absolute sense (e.g., Hastie et al., 1983, 1998) but tend to display better comprehension than uninstructed jurors (Saxton, 1998) and somewhat better comprehension than nondeliberating jurors (Diamond & Levi, 1996; Elwork et al., 1982; Severance, Greene, & Loftus, 1984). Ultimately, however, absolute performance is most important, and this has been universally disappointing (Ellsworth & Reifman, 2000).

In response to this recurrent problem, researchers have investigated the impact of revising standard pattern instructions to reduce the cognitive burden on jurors. Three studies have shown modest improvement in juror comprehension resulting from efforts to rewrite existing pattern instructions. Elwork et al. (1982) found that juror comprehension of the instructions improved somewhat when standard pattern instructions were rewritten, whereas Severance et al. (1984) observed that jurors exposed to revised pattern instructions fared only slightly better than those who received standard pattern instructions, a difference enhanced modestly by deliberation. Furthermore in Greene's (1988) study, jurors who heard simplified instructions about eyewitness testimony recalled that information better. These studies highlight the potential to increase juror comprehension, at least somewhat, by applying linguistic principles that make standard pattern instructions simpler and more direct. Two other studies have examined the benefit of providing jurors with instructions at the beginning and end of the trial, instead of only at the end. The rationale for pre-instruction is that it provides a cognitive framework for jurors to organize and retain the evidence, and two jury-level studies provide some preliminary support for this notion. Heuer and

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Penrod (1989) found that pre-instruction assisted juries in evaluating evidence according to legal guidelines but did not improve individual recall of evidence or affect verdicts. Bourgeois, Horowitz, ForsterLee, and Grahe (1995) found that deliberating pre-instructed jurors awarded higher damages to plaintiffs in a civil suit, whereas nondeliberating jurors were unaffected by instruction timing. On the basis of this limited evidence with deliberating juries, both pre-instruction and simplified instructions appear to produce modest improvement in jurors' comprehension of their instructions.

Juror involvement. Six studies have examined the impact of allowing jurors to take a more active role at trial than what has traditionally been allowed. Four studies have dealt with juror note-taking (Flango, 1980; Heuer & Penrod, 1988, 1994a; Sand & Reiss, 1985), four with juror question-asking (Heuer & Penrod, 1988, 1994a; Sand & Reiss, 1985; Severance & Loftus, 1982), and one with juror anonymity (Hazelwood & Brigham, 1998). With the exception of the latter, all were conducted in the field with real juries, leading to increased confidence in their findings. Of particular note, Heuer and Penrod took advantage of a rare opportunity to conduct two field experiments with actual juries, the first in federal district court in Wisconsin (Heuer & Penrod, 1988, 1989) and the second with a national sample of cases spanning both the state and federal court systems (Heuer & Penrod, 1994a, 1994b).

Several findings have emerged from these field studies. First, jurors generally take notes when given the opportunity (Flango, 1980; Heuer & Penrod, 1988, 1994a). Second, juries that are allowed to ask questions do not generate an excessive amount (usually three or fewer) and focus on the definition of key legal terms (Heuer & Penrod, 1988; Sand & Reiss, 1985; Severance & Loftus, 1982). Third, attorneys and judges have not had a negative reaction to these procedures (Heuer & Penrod, 1988, 1994a). What is less clear is whether note-taking and question-asking influence important deliberation outcomes, such as juror- and jury-level comprehension of the instructions. Heuer and Penrod (1994a) noted that allowing jurors to ask questions was anecdotally reported to be helpful in dealing with legal and evidence complexity; Flango (1980) also reported anecdotally that jurors who took notes were more participative and influential during deliberation. No study reported an association between juror involvement and conviction/liability rates, nor would one expect this to be the case. Juror note-taking and question-asking may lead to a more thorough understanding of the evidence, but one would not expect an increased understanding to favor systematically either side at trial.

One new topic in this area involves allowing jurors to discuss the facts of the case while the trial is in progress. In 1995, the Arizona Supreme Court allowed this practice and permitted trial court judges the discretion to prevent some juries from discussing cases prior to deliberation, allowing its impact to be assessed through a field experiment (Hans et al., 1999). Although data were still being collected and analyzed at the end of our review period, an initial report based on the questionnaire responses of trial participants suggests a mixed but generally positive reaction. Most jurors who were allowed to converse prior to deliberation reported doing so, and jurors as well as judges generally felt that predeliberation discussion produced beneficial results. At the same time, attorneys and litigants

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were somewhat less enthusiastic about the reform, and its impact on jury verdicts is still unclear.

Overall, despite a compelling rationale, there is little evidence addressing the impact of juror involvement, but what is available suggests that the positive impact on deliberation quality may be modest and limited to particular kinds of trials (e.g., long or complex ones). On the other hand, there seems to be little harm in allowing jurors to be more involved, and these procedures have not tended to elicit negative reactions from attorneys and judges.

Decision rule. Eleven studies have examined the impact of allowing juries to reach a verdict without consensus. Most of this research was conducted in the late 1970s and early 1980s, with only three studies on the topic since the early 1980s (i.e., J. H. Davis, Hulbert, Au, Chen, & Zarnoth, 1997; Kameda, 1991; Velasco, 1995). In general, two critical thresholds have been examined and compared with the requirement of unanimity, .67 (i.e., 4/6 or 8/12) and .83 (i.e., 5/6 or 10/12), and several consistent findings have emerged. Specifically, juries not required to be unanimous tend to take less time to reach a verdict (J. H. Davis, Kerr, Atkin, Holt, & Meek, 1975; J. H. Davis et al., 1997; Foss, 1981; Hastie et al., 1983; Nemeth, 1977), take fewer polls (J. H. Davis et al., 1975, 1997; Kerr et al., 1976), and hang less often (Kerr et al., 1976; Nemeth, 1977; Padawer-Singer, Singer, & Singer, 1977; Saks, 1977). Juries also tend to cease deliberating when a quorum is reached, and jurors serving on juries required to reach unanimous verdicts have tended to report being more satisfied and confident that the jury reached the correct verdict (Saks, 1997). Conversely, several studies have found little or no impact of assigned decision rule, but these studies tend to have obvious methodological weaknesses, such as little or no variance in jury verdicts (J. H. Davis et al., 1975), severe deliberation time limits (Kameda, 1991), and small samples (Velasco, 1995). Although decision rule effects appear to be small but real, they are also likely to be contingent on other factors, such as the strength of the evidence. In other words, there may only be a small range of evidence in which decision rule effects consistently appear (i.e., when the prosecution/plaintiff's case is not particularly weak or strong).

Jury size. In the late 1960s and early 1970s, size requirements associated with jury trials were reviewed by the federal courts and subsequently by social scientists. In an effort to control rising costs and hasten trial resolution, the federal government began allowing juries to operate with fewer than the traditional 12 persons. In a landmark decision, the U.S. Supreme Court ruled that using juries with fewer than 12 members did not violate a defendant's civil rights (*Williams v. Florida,* 1970). In making their decision, the Court noted that there was "no discernible evidence" for functional differences between juries of 6 and 12 members.

The *Williams* ruling sparked criticism (e.g., Zeisel, 1971; Zeisel & Diamond, 1974) and a flurry of empirical research by social scientists in the mid-1970s. However, research on jury size subsided greatly after 1980, with only four studies on jury size published since 1985 (i.e., Boster et al., 1991; J. H. Davis et al., 1997; Tindale, Davis, Vollrath, Nagao, & Hinsz, 1990; Velasco, 1995). Initial work on jury size focused on comparing 6-person juries to 12-person juries; later work extended attention to jury sizes of 8 or less (e.g., Boster et al., 1991; Tindale et al., 1990; Werner, Strube, Cole, & Kagehiro, 1985). Similar to the empirical work

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on decision rule, the research on jury size suggests several small but reliable differences in the functioning of 6- and 12-person juries. A recent meta-analysis by Saks and Marti (1997) quantitatively assessed the effects of jury size on deliberation outcomes, using 17 studies that compared 6-person and 12-person juries. Saks and Marti found that larger juries took significantly longer to deliberate (although the mean difference was only 20 min across all studies and 44 min in three studies based on actual juries), but participation tended to be greater and less variable in smaller juries. Consistent with Zeisel's (1971) theoretical predictions based on probability theory, larger juries were also much more likely to include an individual from a racial or ethnic minority. Finally, 12-person juries hung less often but were no more likely to arrive at the "correct" verdict as defined by preference of the majority of individuals in the population.

In addition to the outcomes of criminal trials, a handful of studies have examined the effect of jury size on liability verdicts and damage awards in the context of civil trials, but their findings are inconsistent (Beiser & Varrin, 1975; Buckhout, Weg, Reilly, & Frohboese, 1977; J. H. Davis et al., 1997; Eakin, 1975; Institute of Judicial Administration, 1972; Kessler, 1973; L. R. Mills, 1973). On the basis of three studies (two of the above plus the findings of an unpublished study), Saks and Marti reported that smaller juries awarded larger damages than larger juries, but they were unable to generate a compelling rationale for this finding. This may simply be a spurious finding associated with a literature that is methodologically suspect. Most of these studies used designs that seriously limited internal validity, typically involving small samples and an inability to control (or even measure) case type or complexity (Zeisel & Diamond, 1974). Conversely, in a well-done recent study, J. H. Davis et al. (1997) found that 6-person juries took less time to reach a verdict and awarded larger damages than 12-person juries but were also more variable in their awards (consistent with probability theory). Given the clear implications of probability theory and the complementary empirical findings of J. H. Davis et al. (1997), 6-person juries seem more likely to exhibit greater variability in their outcomes than do 12-person juries. Beyond this conclusion, little else has been established.

Verdict/sentencing options. Five studies have investigated the impact of verdict/sentencing options (J. H. Davis, Kerr, Stasser, Meek, & Holt, 1977; Hamilton, 1978; Koch & Devine, 1999; Niedermeier et al., 1999; Savitsky & Lindblom, 1986). Collectively, these studies suggest that allowing juries the opportunity to convict the defendant on a lesser charge has a substantial impact on their verdicts. Hamilton (1978) compared a condition with the verdict options "not guilty" (NG) and "guilty of premeditated murder" (G) to another condition with the choice of "not guilty," "guilty of unpremeditated murder," or "guilty of premeditated murder." The resulting conviction rate was lower when only two verdict options were available, but sentence length was unaffected. Savitsky and Lindblom (1986) examined the "not guilty by reason of insanity" (NGRI) and "guilty but mentally ill" (GBMI) verdict options using three verdict option sets: G/NG, G/NG/NGRI, and G/NG/GBMI/NGRI. Verdict options interacted with the strength of evidence against the defendant such that, when evidence was strong, all juries convicted with two traditional options, most convicted with the addition of NGRI in the three-option set, and all chose GBMI in the four-option set. Conversely, when evidence was weak, all juries acquitted in the two-option set,

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all chose NGRI in the three-option set, and most chose GBMI when four verdict options were available. Finally, Koch and Devine (1999) found that the option of convicting on a lesser included charge resulted in a higher conviction rate when "reasonable doubt" was not defined but not when reasonable doubt was defined as being "firmly convinced." With respect to sentencing options, two studies failed to find an effect associated with the severity of a mandatory sentence attached to conviction. J. H. Davis, Kerr, et al. (1977) found that mandatory sentence length (0–2 years vs. 15 or more years) did not affect verdicts, but juries deliberated longer when the mandatory sentence was not commensurate with the victim's suffering. Similarly, Niedermeier et al. (1999) found a negligible difference in conviction rates as a function of sentence severity ($500 fine vs. 25 years in prison). Juries thus appear fairly responsive to verdict options, but the impact of verdict options is likely to interact with the strength of evidence against the defendant. In contrast, there is not enough research on the impact of sentencing to draw any conclusion with reasonable confidence.

Trial structure. Trial structure concerns general courtroom procedures, particularly with regard to the timing and scope of the presentations by the two interested parties. Two issues have been the primary focus of work in this area: bifurcation and joinder/severance. *Bifurcation* refers to separating the presentation of trial evidence, as when a jury is prevented from hearing evidence about punishment (or damages) before guilt (or liability) is determined. In some cases (e.g., capital crimes), a second jury is assigned responsibility for determining the punishment/award. *Joinder/severance* refers to the degree of consolidation associated with related charges. When trials are joined, one trial is held involving multiple plaintiffs or defendants associated with some cause of action, or multiple charges against the same defendant. When trials are severed, the opposite occurs: separate trials occur for each plaintiff, each defendant, or each charge.

Seven studies have assessed the impact of varying trial structure. Of these, five studies have dealt with the issue of bifurcation (J. H. Davis, Holt, Spitzer, & Stasser, 1981; Horowitz & Bordens, 1990; Horowitz & Seguin, 1986; Landsman, Diamond, Dimitropoulos, & Saks, 1998; Zeisel & Callahan, 1963), whereas three have dealt with the issue of joinder/severance in trials involving multiple plaintiffs or defendants (Horowitz & Bordens, 1988, 1990; Tanford & Penrod, 1984).

The three studies on bifurcation in the context of civil trials suggest that bifurcated juries tend to find the defendant liable less often than in comparable nonbifurcated trials. In an early field study, Zeisel and Callahan (1963) observed that juries hearing only evidence related to compensatory damages returned 30% fewer judgments of defendant liability in a sample of personal injury trials from a federal district court in Illinois. Using a sophisticated experimental design and a mock trial involving a toxic tort, Horowitz and Bordens (1990) found that bifurcation involving various types of evidence (i.e., general causation, liability, compensatory damages, and punitive damages) affected jury verdicts related to causation and liability. Essentially, "bifurcated" juries were more likely than "unitary" juries to find the defendant responsible for the plaintiff's injuries as well as liable for compensatory damages, but the average compensatory damage award in bifurcated trials was 57% higher than in unitary trials. In another mock jury study involving a toxic tort, Landsman et al. (1998) did not replicate the effect of

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bifurcation on liability verdicts but did find that bifurcated juries awarded substantially higher punitive damages when the defendant had been found liable.

In criminal trials, bifurcation has primarily been used in cases involving capital punishment, and two studies have examined the impact of splitting the determination of guilt and sentence between separate juries. Both of these studies are consistent with the conclusion that juries empanelled for both the guilt and the sentencing phases of trial are somewhat more likely to convict in the guilt phase. In the first study, J. H. Davis et al. (1981) manipulated the belief that mock juries would be responsible for sentencing if they convicted. Juries told that they would reconvene to determine a sentence if the defendant was found guilty subsequently convicted 10% more often than juries told only to determine guilt. In the second study, Horowitz and Seguin (1986) found that juries responsible for determining guilt as well as a sentence were 23% more likely to convict than juries responsible only for determining guilt in a capital murder case.

The second set of studies on trial structure has shown that the odds of a particular defendant being found guilty/liable increase when trials are joined. In particular, three studies suggest the existence of an assimilation effect wherein juries perceive less distinction among defendants in joined trials than in separate trials. Tanford and Penrod (1984) found that conviction for a focal defendant was twice as likely in a joined trial compared with separate trials, and intrusion errors evident in the recall of testimony in the unitary trial were worse to the extent that the charges were similar. Horowitz and Bordens (1988) reported that damage awards for multiple plaintiffs in unitary trials did not vary as much across plaintiffs as awards given by juries hearing separate trials, with the least injured plaintiff benefiting the most from a unified trial. In a follow-up study, Horowitz and Bordens (1990) found that defendants were more likely to be found liable for plaintiff injuries in a unitary trial, but responsibility attributions and damage awards were lower than those awarded in separate trials. In addition, damage awards varied as a function of the order in which evidence was presented, with higher damages when causation evidence was presented before liability evidence.

Overall, bifurcation and joinder/severance appear to have a strong impact on both jury verdicts and jury awards in civil trials. In civil trials, bifurcation tends to reduce the odds of a defendant being found liable but appears to foster larger damage awards when the defendant is deemed liable. In criminal trials, the limited available research suggests that juries responsible for determining both guilt and sentence are more likely to convict than juries responsible for determining only guilt.

Participant Characteristics

Research on participant characteristics has been fairly popular, probably due in part to the long-standing focus on individuals in psychology as well as the increasing evidence from cognitive science research that human information processing is usually not "rational" in the sense of maximizing the use of relevant information. Instead, human judgment relies heavily on the use of prototypes, schemas, scripts, and other mental structures to simplify and speed decision making. In the context of jury decision making, despite the wide variety of participants to choose from, research has focused on characteristics of the jury and

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the defendant, with some attention directed toward victims and/or plaintiffs and very little toward attorneys or judges. Spurred by the emergence of "scientific jury selection" in the early 1970s, much of the work on participant characteristics has sought to identify relationships between juror characteristics and predeliberation verdict preferences. However, after extensive study, it is now clear that few if any juror characteristics are good predictors of juror verdict preferences (Bonazzoli, 1998; Saks, 1997). Those characteristics found to be related to juror verdict preferences have tended to have weak and inconsistent effects (Boyll, 1991; Fulero & Penrod, 1990; Hastie et al., 1983; Visher, 1987). Considerably less research has focused on interacting juries, but a number of studies suggest that jury-level effects do exist in this area despite weak juror-level relationships. Tables 2 and 5 provide summary information on empirical studies that have examined participant characteristics.

Jury demographic composition. As a whole, demographic factors such as race, gender, education, and socioeconomic status (SES) have received a great deal of attention from small-group researchers because these factors are readily observable and appear to play a large part in social cognition (King, 1993). It is therefore surprising that juror demographic characteristics have been only weakly and inconsistently related to juror verdict preferences (Bonazzoli, 1998; King, 1993; Saks, 1997). At the jury level, some studies have measured juror demographic variables as part of a broad examination of juror characteristics (e.g., Baldwin & McConville, 1980; Hastie et al., 1983; C. J. Mills & Bohannon, 1980; Moran & Comfort, 1986; Sealy & Cornish, 1973a, 1973b; Simon, 1967), whereas other studies have done so to examine specific interactions with other phenomena (e.g., Gabora, Spanos, & Joab, 1993; Goodman et al., 1998; Kerr, 1981). Only a few studies have actually manipulated jury demographic composition in some way (Chadee, 1996; Fischer, 1997; Goldman, Freundlich, & Casey, 1983), consistent with a fairly high percentage of the studies in this area having been conducted in the field.

The notable finding in this area is that jury demographic factors interact with defendant characteristics to produce a bias in favor of defendants who are similar to the jury in some salient respect. Adler (1973) reported that the difference between the mean score for juror SES within juries and the defendant's SES was positively related to the likelihood of conviction. Nagel and Weitzman (1972) found that male-dominated juries tended to award higher damages to male plaintiffs, whereas female-majority juries tended to award larger sums to female plaintiffs. Fischer (1997) observed that juries composed mostly or entirely of women tended to convict a male defendant more often than juries with a lower proportion of women in a rape case. Primary support for a jury–defendant similarity bias, however, comes from five studies that observed interactions between the racial composition of the jury and the defendant's race. In an early mock jury study, McGowen and King (1982) found that juries gave longer sentences to defendants who were racially similar, but race and SES were apparently confounded. More convincing support stems from a second mock jury study by Chadee (1996), which revealed an interaction between jury–defendant similarity and strength of evidence. Jurors in White-majority juries were more likely to vote to convict a Black defendant and were more severe in their preferred verdict than jurors in Black-majority juries when the prosecution's evidence was

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weak. In contrast, jurors in Black-majority juries tended to be harsher on a Black defendant when the evidence strongly pointed to the defendant's guilt, consistent with the "black sheep" effect observed in several studies with mock jurors (Bonazzoli, 1998; King, 1993). Further support for a jury–defendant similarity bias comes from three field studies. In the first, Perez, Hosch, Ponder, and Trejo (1993) observed that White-majority juries were much more likely to convict Hispanic defendants than White defendants, whereas Hispanic-majority juries tended to show the opposite pattern. In the second field study, K. S. Klein and Klastorin (1999) noted a relationship between racial diversity and the likelihood of a jury hanging in that the number of White jurors was positively correlated with the odds of reaching a verdict when at least one defendant was African American. Finally, in a third field study conducted in Texas, Daudistel, Hosch, Holmes, and Graves (1999) found that sentence length for White defendants was positively correlated with the number of Hispanic jurors on the jury. Jury–defendant similarity bias has thus been observed across a number of studies and contexts and appears to be a robust phenomenon. When the evidence against the defendant is weak or ambiguous, juries that are demographically similar to the defendant tend to be lenient; however, when the defendant's culpability is clear, juries tend to be harsher.

Juror personality traits. Thirteen studies have examined the relationship between juror personality traits and jury verdicts. Most studies in this area have measured a focal juror personality trait, dichotomized the trait distribution at the median or mean, and then composed homogeneous juries wherein all members were high or low on the focal trait. On the other hand, a few studies have simply measured the trait levels of individual jurors and correlated mean values with verdict preferences or jury verdicts.

Although a few efforts have measured personality traits associated with the Big Five (Moran & Comfort, 1986; Rotenberg, Hewlett, & Siegwart, 1998; Sealy, 1981), most studies of jury personality composition have focused on authoritarianism or the related trait of dogmatism. High-authoritarian individuals tend to be rigid, conventional, conservative, power-oriented, and deferential to authority (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1982). Dogmatism is similar to authoritarianism in emphasizing closed-minded, rigid thinking but without right-wing political overtones. Unlike other dispositional characteristics, there is also some indication that juror personality traits are at least modestly related to juror verdict preferences. Narby, Cutler, and Moran (1993) conducted a meta-analysis of studies that measured juror verdict preferences and two forms of authoritarianism: traditional and legal. They found that both forms of authoritarianism were reliably but modestly associated with juror verdict preferences across 20 studies, with legal authoritarianism a somewhat better predictor than traditional authoritarianism (.19 vs. .11).

Parallel with the effect on juror verdict preference, jury-level authoritarianism/dogmatism has been linked consistently to jury outcomes. Specifically, juries containing a high proportion of authoritarian/dogmatic jurors have tended to convict more often (McGowen & King, 1982; Shaffer & Case, 1982) and impose longer sentences (Bray & Noble, 1978; Shaffer, Plummer, & Hammock, 1986) than juries with a low proportion of such individuals. Bray and Noble (1978) found that juries composed entirely of high-authoritarian jurors recommended

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prison sentences over twice as long as their low-authoritarian counterparts. Shaffer and Case (1982) found that convicting juries had a significantly higher percentage of dogmatic jurors (61%) than juries voting to acquit (33%). Shaffer et al. (1986) composed juries in which the majority of members were either dogmatic or nondogmatic and found that all nine juries that hung contained at least one nondogmatic juror who could not be swayed. The mean dogmatism score within juries was correlated strongly with sentence length (r = .54), with dogmatic juries recommending sentences over twice as long on average as nondogmatic juries. Jury-level dogmatism was also found to interact with defendant suffering to influence sentence length. When defendant suffering resulted from an injury sustained in the act of committing the crime, dogmatic juries recommended prison sentences roughly five times longer than low-authoritarian juries; when defendant suffering was unrelated to the crime, there was a negligible difference in mean sentence length as a function of jury dogmatism. Two studies also support the notion that authoritarian jurors are more susceptible to group conformity pressure as well as the influence of authority figures. Lamberth, Krieger, and Shay (1982) found that high-authoritarian jurors were more likely to change their verdict preferences during deliberation, whereas Kerwin and Shaffer (1991) observed dogmatic juries to be more responsive than egalitarian (i.e., nondogmatic) juries to judicial instructions. When reminded of their nullification capability by the judge, dogmatic juries acquitted more often than nondogmatic juries, but without such a reminder, dogmatic juries convicted more often.

To summarize, these laboratory studies provide strong support for the existence of a relationship between the number of authoritarian/dogmatic jurors in a jury and jury decisions (i.e., verdicts as well as sentences). At the same time, this conclusion must be qualified somewhat in that no study has been able to examine this association with actual juries.

Juror attitudes/values. A wide variety of juror attitudes and values has been examined in the search to understand the basis for verdict preference. Research in this area has studied attitudes toward capital punishment (Bernard & Dwyer, 1984; Cowan, Thompson, & Ellsworth, 1984; Horowitz & Seguin, 1986; Moran & Comfort, 1986), women (Kasian, Spanos, Terrance, & Peebles, 1993), child sexual abuse (Gabora et al., 1993), rape (Spanos, DuBreuil, & Gwynn, 1991–1992), drunken driving (Bromley, 1996), criminal defendants (J. H. Davis, Spitzer, Nagao, & Stasser, 1978), the jury system (Sealy, 1981), and the litigation explosion in the United States (Hans & Lofquist, 1992). In addition, some attention has been directed toward beliefs related to moral values (Bernard, Cohen, & Lupferl, 1985; Rotenberg et al., 1998), organized religion (Johnson, 1985), and openmindedness (Foley & Pigott, 1997b, Kline & Jess, 1966). In contrast to research on juror demographic factors and personality traits, attitude/value composition has rarely been manipulated, instead being treated more as a supplementary measured variable. Furthermore, few studies have addressed the impact of juror attitudes on jury verdicts; most have focused their analyses on the relationship between juror attitudes and voting behavior.

Overall, no cluster of attitudes/values has received enough attention to allow firm conclusions to be drawn except for one—attitudes toward capital punishment. In most jury trials involving a capital offense, jurors are screened for an unwillingness to impose the death penalty (i.e., "death-qualified"). Whereas

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numerous studies have shown that death-qualified jurors are more likely than "excludable" jurors to favor conviction at the close of a trial (e.g., Ellsworth & Mauro, 1998; Filkins, Smith, & Tindale, 1998), only a few studies have addressed the impact of jury death-penalty attitude composition on jury verdicts. Using an abbreviated form of voir dire to create mock juries composed entirely of death-qualified jurors or a mixture of death-qualified and excludable jurors, Cowan et al. (1984) found that death-qualified jurors were more likely to vote for guilt before and at the end of deliberation, and mixed juries consisting of both death-qualified and excludable jurors were better able to recall evidence after deliberation than juries composed exclusively of death-qualified individuals. In the second study, Horowitz and Seguin (1986) found that death-qualified juries had a conviction rate 19% greater than non-death-qualified juries and imposed the death penalty 21% of the time, whereas the non-death-qualified juries never did. In a third study, Bernard and Dwyer (1984) examined three jury-level attitude compositions with regard to the death penalty and observed that death-qualified juries were more likely to recommend the death sentence than non-death-qualified juries, with juries consisting of 50% excludable jurors never opting to impose the death penalty.

In contrast to the research on jury personality composition, the experimental laboratory work on death penalty attitudes is complemented by a growing body of field research. Drawing on data from 916 jurors who served on 257 sentencing-phase capital juries in 11 states, Bowers et al. (1998) concluded that death-penalty attitudes play a critical role in juror information processing and deliberation conduct in capital trials. These researchers found that many jurors made premature decisions regarding the defendant's guilt, some as early as the prosecution's presentation of evidence in the guilt trial. Furthermore, jurors who adopted an early stance in favor of the death penalty tended to hold a cluster of pro-death attitudes in viewing death as the only acceptable punishment for various kinds of murder (including intentional murder), in believing capital punishment to have substantial value in deterring crime, and in lacking moral doubts about death as punishment. Of those taking an early stand on the defendant's guilt, 60% favored imposing the death penalty. These pro-death individuals have tended to be more convinced of the correctness of their view than those favoring life sentences and also more likely to inappropriately advocate for imposing the death penalty as the appropriate punishment during the guilt deliberations.

Several additional studies have focused on attitudes that could play a role in any jury trial. In one of these, J. H. Davis et al. (1978) found that juries composed of individuals with more cynical attitudes toward individuals accused of rape were more likely to convict than those composed of more skeptical individuals. They created three types of homogeneous juries based on pretrial opinions about the likelihood of defendant guilt and found that pro-defense juries composed entirely of individuals from the category with the lowest rated likelihood of defendant guilt produced significantly fewer convictions than moderate or pro-prosecution juries. Two other studies indicate that juror moral reasoning level also affects jury verdicts. In two experiments by Bernard et al. (1985), all juries composed of individuals with higher levels of moral reasoning (according to Kohlberg's theory) found the defendant not liable, whereas mixed juries and juries consisting of individuals with a lower level of moral reasoning tended to hang or award

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damages to the plaintiff. A possible explanation for this finding was noted by Rotenberg et al. (1998), who found that jurors with high moral reasoning were more dominant during deliberation and their predeliberation ratings of guilt were significantly related to jury verdicts (which was not the case for jurors with low levels of moral reasoning).

Juror experience. Seven studies have investigated the influence of jury duty experience on juror verdict preferences or jury verdicts; these studies provide some support for the notion that jurors are affected by prior jury service. The general expectation has been that those who have previously served on a jury will tend to have been hardened by their experience and will be more likely to favor conviction in subsequent trials. Consistent with this hypothesis, in one of the first studies on the topic, Reed (1965) surveyed jurors from 36 criminal juries in Louisiana and found that jurors with prior jury experience were more likely to have voted guilty.

Three mock jury studies have since examined the issue of juror experience and produced inconsistent results. Nagao and Davis (1980) had mock juries decide two cases (one involving vandalism, the other rape) and varied which case was heard first. Experienced jurors (i.e., those deliberating their second case) were less likely to vote for conviction when their second case involved rape but more likely to vote for conviction when the case involved vandalism. In contrast, Kerr (1981) found no impact of prior experience when juries were asked to consider nine armed robbery scenarios in succession. Kassin and Juhnke (1983) created mock juries with varying proportions of experienced jurors and observed that inexperienced jurors were more likely to change their votes in juries with a high percentage of experienced jurors compared with juries made up largely of inexperienced jurors.

In contrast, three archival studies have also examined the relationship between juror experience and jury verdicts in actual trials; these studies suggest that juror experience is related to jury verdicts, although perhaps not in a straightforward manner. Two of these studies focused on the relationship between the proportion of experienced jurors and jury verdicts. On the basis of 175 criminal trials, Dillehay and Nietzel (1985) found that the number of experienced jurors in a jury was positively correlated with a 5-point jury verdict scale, where the highest value was conviction on the primary charge ($r = .23$), whereas a second study by Werner et al. (1985) involving 206 criminal trials observed only a weak relationship ($r = .08$). A third study by Kerr, Harmon, and Graves (1982) found evidence of a contrast effect whereby experienced jurors apparently compared the evidence in the present trial to the strength of evidence in past trials. Focusing on 40 "close" trials where the evidence did not strongly favor either side, juries were less likely to convict to the extent that they contained experienced jurors who had been exposed to particularly strong prosecution evidence in an earlier case (especially if it was their first trial as a juror).

Overall, experienced jurors tend to be somewhat more pro-conviction and influential than inexperienced jurors, but they also appear to evaluate evidence in light of their experience in previous trials. To the extent this is true, it would dampen any direct relationship between the proportion of experienced jurors in a jury and jury verdicts and could partially account for the discrepancy between the two archival studies noted above.

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Defendant characteristics. Numerous studies have examined the relationship between jury verdicts and a wide variety of defendant characteristics, including race, gender, SES, attitudes, physical attractiveness, relation to victim, similarity to jury, remorse, testimony at trial, and prior criminal record. With regard to race, there is little evidence of simple effects (Barnett, 1985; McGuire & Bermant, 1977; Shaw & Skolnick, 1995), but several studies have yielded interactions between jury race composition and defendant race, consistent with the similarity bias noted previously (Daudistel et al., 1999; McGowen & King, 1982; Perez et al., 1993). It is surprising that defendant gender has been largely overlooked, with one archival study finding no effect on jury verdicts (Werner et al., 1985) but a second study providing support for the jury–defendant similarity bias noted earlier (Nagel & Weitzman, 1972).

Seven studies have examined the impact of defendant SES, and their findings are also consistent with a jury–defendant similarity bias. Consistent with a higher-order interaction, studies searching for main effects of defendant SES have produced conflicting results. One study found that low-SES defendants (i.e., blue-collar) were more likely to receive the death sentence (Judson, Pandell, Owens, McIntosh, & Matschullat, 1969), a second laboratory study produced no effect for defendant SES (Gleason & Harris, 1976), and two other studies found that high-SES defendants were treated more severely (Blanck, 1985; Bray, Struckman-Johnson, Osborne, McFarlane, & Scott, 1978). In contrast, several interactions have been observed between SES and other factors (Adler, 1973; McGowen & King, 1982; Niedermeier et al., 1999). Two of these studies have been described previously; in the third study involving a medical malpractice case, Niedermeier et al. (1999) found that a lower-status defendant (i.e., a medical resident) was convicted less often when remorse was displayed, whereas a higher-status defendant (i.e., a medical director) was convicted more often. One interpretation of this finding is that juries were treating a dissimilar defendant (i.e., the medical director) more harshly.

Seven studies have examined the influence of a defendant's prior criminal record; their results clearly suggest that defendants with one or more prior convictions are more likely to be found guilty by deliberating jurors. In an early study conducted in England, Sealy and Cornish (1973a) found that jurors exposed to a defendant with a criminal record were more likely to favor conviction after deliberation than jurors whose defendant did not have a past record. Two other experimental studies support this finding at the jury level, with Hans and Doob (1976) noting a 40% increase in convictions when juries were informed of the defendant's past conviction and Borgida and Park (1988) reporting that knowledge of a defendant's prior conviction produced a higher conviction rate when associated with a narrow definition of entrapment. The strong impact of a defendant's previous conviction has also been observed in several field studies (Baldus, Pulaski, & Woodworth, 1983; Barnett, 1985; Blanck, 1985; M. A. Myers, 1979). In particular, using a large sample of capital penalty trials from Georgia, Baldus et al. (1983) and Barnett (1985) both noted an association between prior felony convictions and the probability of receiving the death sentence, using independent analytical approaches. The only study that failed to find a relationship between prior defendant conviction and jury verdicts, Tanford and Cox (1988), differed from the previous studies in using a prior conviction that

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was unrelated to the charge at hand. Therefore, consistent with a good deal of work on mock juror decision making, informing juries of a defendant's prior conviction on a related charge appears to increase the likelihood of conviction.

Two studies have examined defendant physical attractiveness and yielded some evidence of bias against unattractive defendants. Izzett and Leginski (1974) provided mock jurors with a picture of an attractive or unattractive defendant and found postdeliberation verdict preferences to be more lenient for the attractive defendant and more severe with regard to the unattractive defendant after deliberation. In contrast, MacCoun (1990) also manipulated defendant attractiveness by presenting pictures of attractive and unattractive defendants and found the attractive defendant was almost twice as likely to be acquitted than the unattractive defendant. Consistent with Izzett and Leginski's study, deliberation produced a sizeable leniency shift in favor of the attractive defendants but not for unattractive defendants. In addition to these direct efforts, several field studies provide indirect support for a relationship in the attributions of judges, attorneys, and police officers (Baldwin & McConville, 1979) as well as ex-jurors from capital murder cases (Geimer & Amsterdam, 1988; Kalven & Zeisel, 1966). Although the nature of "attractiveness" remains elusive, and the research designs that have been used to study it have not been the most rigorous, there is some support for the existence of a weak relationship between defendant attractiveness and jury verdicts.

Defendant behavior in the courtroom has not been examined often, and the few studies that have been conducted have addressed only a fraction of the relevant behaviors. Existing research in this area has focused on the display of remorse. An early study that manipulated remorse through a written description of the defendant's behavior in the courtroom supported the intuitive conclusion that defendants who show remorse receive lighter sentences (Rumsey, 1976). However, two recent studies hint at a more complex relationship between remorse and jury verdicts. After analyzing the transcripts of extensive interviews with more than 150 jurors who participated in capital murder penalty trials in California, Sundby (1998) noted that defendants' display of remorse was unrelated to final penalty outcomes, with most jurors reporting that defendants were not remorseful. On the other hand, indirect nonverbal displays of remorse that implied the defendant's acceptance of responsibility were perceived by jurors as much more credible than direct statements to that effect. Furthermore, the best predictor of final outcome was the defendant's attitude toward the process, with those showing nonchalance, disdain, or contempt more likely to receive the death penalty. Consistent with a theme of contingency, Niedermeier et al. (1999) also observed defendant remorse to interact with social status, with low-status defendants in a medical malpractice case treated more leniently when remorse was shown but high-status defendants treated more severely.

Three studies have examined defendant testimony at trial, and their results are inconclusive. Two archival studies produced contradictory findings, with one study finding defendant testimony to be associated with a somewhat higher likelihood of conviction (M. A. Myers, 1979) and the other reporting that defendant testimony was linked modestly to a lower probability of conviction (Werner et al., 1985). Shaffer and Case (1982) found that juries exposed to a defendant who took the Fifth Amendment and refused to answer questions either

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before trial or on the witness stand spent more time talking about defendant motives, made more pro-conviction statements during deliberation, and ultimately returned more guilty verdicts. In sum, the scattered research on this topic, and the mixed findings it produced, does not suggest a complex relationship between defendant testimony and jury verdicts. Any relationship is almost certain to involve higher-order interactions between the content of that testimony, the prosecution's strength of evidence, and perhaps other variables as well.

Victim/plaintiff characteristics. The number of studies on victim/plaintiff characteristics is small but growing fast. Kalven and Zeisel (1966) initiated research in this area when they examined attitudes toward the victim in their comprehensive search for variables explaining judge–jury verdict discrepancies. In this section, a variety of victim/plaintiff characteristics are considered, whereas the next section focuses in particular on the influence of these factors in capital decision making.

Laboratory research on this topic has tended to focus on victim characteristics in criminal trials. Two laboratory studies have found little impact of victim suffering (J. H. Davis, Kerr, et al., 1977) or attractiveness (MacCoun, 1990) on verdicts, although J. H. Davis, Kerr, et al. (1977) observed longer deliberation time when the proscribed sentence was inconsistent with the victim's suffering. On the other hand, in a third laboratory study, Kasian et al. (1993) found that the extent of injury and the plea offered by the victim/defendant in a spousal abuse homicide influenced jury verdicts, with acquittal likelihood greater when the abuse was more severe and when the victim/defendant pleaded automatism as opposed to self-defense. A particular focus of the research on victim characteristics has been on children in molestation or sexual abuse cases. Four studies have focused on the age of child victims in these cases, with three observing no relationship with jury verdicts (Duggan et al., 1989; Goodman et al., 1998; J. E. B. Myers, Redlich, Goodman, Prizmich, & Imwinkelried, 1999) but a fourth study yielding a weak effect consistent with slightly more convictions when victims were 12–13 years old as opposed to 16–17 (Gabora et al., 1993). Two studies have examined the defendant–child relationship and not found it to be related to verdicts (Duggan et al., 1989; J. E. B. Myers et al., 1999).

Several archival studies have examined the association between victim characteristics and jury verdicts in criminal trials; these studies support the inference that juries do consider some victim characteristics in reaching their verdicts. In the field, Judson et al. (1969) considered several victim characteristics in examining predictors of jury-sentencing outcomes in 238 first-degree murder trials and found several to be somewhat related to imposition of the death penalty. Controlling for a variety of case factors, M. A. Myers (1979) found that convictions were more likely with younger victims, but jury verdicts were not related to victim identification of the defendant, prior convictions, gender, employment status, conduct, or injury. In contrast, analyzing the outcomes of capital trials in Georgia, Barnett (1985) observed that death sentences were more likely to be imposed when the victim was a stranger. Finally, Daudistel et al. (1999) reported that somewhat longer sentences were imposed when the victim and the defendant were from the same racial group (e.g., White vs. Hispanic).

Aside from studies focusing on victims in criminal trials, some research has also focused on plaintiff characteristics in civil trials. Horowitz and Bordens

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(1988) investigated the effect of varying plaintiff injuries in a toxic tort civil suit. The presence of an "outlier" plaintiff with a very serious injury and the size of the injured plaintiff population were both unrelated to the amount of compensatory damages awarded but positively associated with the amount of punitive damages awarded. Furthermore, the presence of the outlier plaintiff increased the variability of punitive damages. In a study focusing on individual-level verdict preferences, Foley and Pigott (1997b) found that victim race and age interacted in a complex fashion, with Black plaintiffs viewed as less responsible and awarded more damages than White plaintiffs in a sexual assault case, but only when the plaintiff was young. When the plaintiff was older, White plaintiffs fared better than Black plaintiffs.

Interaction of defendant and victim characteristics: Capital sentencing. There has been a great deal of research on the role of race in criminal sentencing, particularly capital crimes. Initial studies in the 1950s and 1960s revealed that the chances of an African American being sentenced to death were much higher than for a White individual. In 1972, the U.S. Supreme Court declared Georgia's death penalty law to be unconstitutional in *Furman v. Georgia* as a result of the arbitrary and discriminatory manner in which it had been implemented. In response, many states passed new legislation featuring additional constraints on the capital sentencing process in an effort to make it more systematic. In particular, many state death penalty laws explicitly identified one or more "aggravating" factors that must be present to warrant a death sentence as well as a number of "mitigating" factors that, if one or more were present, could justify a life sentence. In 1976, Georgia's new death penalty law was upheld by the U.S. Supreme Court in *Gregg v. Georgia*, and by implication the laws of other states as well. This initiated the modern era of the death penalty in the United States, with 37 states currently sanctioning capital punishment.

After the *Gregg* ruling, social scientists began working in earnest to determine if the new state laws were indeed less arbitrary and less discriminatory. Since 1976, numerous studies have examined relationships between victim race, defendant race, and imposition of the death penalty, using data gleaned from court records and/or interviews with ex-jurors (e.g., Arkin, 1980; Bowers & Pierce, 1980; Gross & Mauro, 1984; Radelet, 1981; Zeisel, 1981; Zimring, Eigen, & O'Malley, 1976). Most of these studies supported the notion that the race of the victim was an important factor in the determination of who received the death penalty, with the killers of White victims generally found to have higher odds than the killers of Black victims. Furthermore, a number of studies also found disparities suggesting that victim race interacted with defendant race such that a Black convicted of killing a White stood a much greater chance of receiving the death penalty than a White who killed another White (e.g., Bowers & Pierce, 1980; Keil & Vito, 1989; Sorenson & Wallace, 1995). In the early 1980s, researchers became increasingly concerned with accounting for the impact of case characteristics associated with the crime on racial disparities in capital sentencing. Using various methodologies, several studies conducted in the 1980s suggested that disparities in death sentencing rates were smaller (and sometimes eliminated) when characteristics of the crime were included. In one of the best studies to date, Baldus, Pulaski, and Woodworth (1983) examined the outcomes of a large sample of jury trials associated with capital crimes committed in Georgia. Using multiple re-

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gression procedures to control for roughly 200 case characteristics, their analysis revealed that Blacks were still over four times more likely to receive the death penalty than Whites. Barnett (1985) reanalyzed the post-*Furman* cases from the Baldus et al. (1983) study after grouping cases into homogeneous clusters on the basis of seriousness of the crime (i.e., deliberateness of the killing, the victim–defendant relationship, and the heinousness of the killing). In contrast to the Baldus et al. findings, Barnett observed that Whites were more likely to be the victims of more serious killings and noted that sentencing disparities as a function of victim race were concentrated in the middle range of the seriousness index. On the other hand, consistent with Baldus et al. (1983), Keil and Vito (1989, 1990) found that Barnett's scale explained some of the variance in jury sentencing outcomes in a sample of murder cases from Kentucky, but substantial racial disparities remained at all levels of the seriousness index. Finally, S. P. Klein and Rolph (1991) noted that White defendants and killers with White victims were more likely to be sentenced to death in California, but these disparities vanished when case characteristics were taken into account. Specifically, a recursive computer-based partitioning algorithm used to classify cases did not select defendant race or victim race in sorting cases into homogeneous groups, indicating that neither factor was useful in discriminating cases. It is interesting to note that Klein and Rolph's findings regarding the nonimpact of race are consistent with another study done in California prior to *Furman* (Judson et al., 1969).

In 1990, the General Accounting Office (GAO) for the federal government undertook a review of all empirical studies on the issue of race in capital sentencing. After an extensive search, 28 studies were identified and analyzed. The review concluded that the race of the victim influenced the likelihood of a defendant being charged with murder and receiving the death penalty, with a race-of-victim effect indicated in 82% of the studies reviewed. Although the bias was sometimes stronger at the prosecutorial stage, it was also observed at the jury verdict stage. With regard to an effect for race of defendant, the data were more equivocal. More than half of the studies showed an effect for defendant race, but simple effects differed considerably in magnitude across studies and sometimes race of defendant interacted with other factors. Baldus, Woodworth, Zuckerman, Weiner, and Broffitt (1998) extended the earlier GAO review by reexamining the issue with all of the studies included in the GAO's review as well as subsequent studies on the topic. They were able to obtain some sentencing data from 29 of the 37 states with death penalty laws on the books; they found that race-of-victim disparities existed in 90% of those states, whereas race-of-defendant effects were observed in 55% of the states.

Baldus et al. (1998) then went on to present the results of an exceptional archival study of capital sentencing in Pennsylvania. Beginning with a sophisticated sampling plan that included the entire population of death-eligible cases, they examined race-of-defendant and race-of-victim effects at several decision points in the Philadelphia criminal justice system between 1983 and 1993. One noteworthy feature of their study was the use of four independent measures of defendant culpability, including the number of aggravating and mitigating factors found to be present by the jury. Strong effects for race of defendant and race of victim were observed with all four measures, and these effects were generally stronger for jury decisions as opposed to prosecutorial decisions. Moreover,

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consistent with Kalven and Zeisel's (1966) liberation hypothesis as well as earlier work by Baldus et al. (1983), sentencing disparities were greatest when defendant culpability (as measured by the four different approaches) was moderate. Finally, Baldus et al. (1998) were able to isolate the source of the jury's bias. Essentially, the race-of-victim effect was linked to juries being less likely to find mitigation when the victim was not Black; the race-of-defendant effect resulted from the jury being more likely to find aggravating circumstances, as well as placing less weight on mitigating factors, when the defendant was Black.

To summarize, the pattern is overwhelmingly clear: Defendant race and victim race are related to the decisions of juries in the sentencing phase of capital trials. In addition to main effects, the two racial variables also appear to interact such that Black defendants who kill White victims are especially likely to receive the death penalty relative to White defendants and Black defendants convicted of killing Black victims. Although many of the early studies confounded the decisions of the prosecutor and the jury, high-quality studies by Baldus and his colleagues (Baldus et al., 1983, 1998), as well as others, show convincingly that race of victim and race of defendant effects do influence jury decisions, probably in an interactive fashion. Assuming that most juries in the United States over the last 75 years have had White majorities, these findings are also consistent with a jury–defendant similarity bias that is exacerbated when the victim is similar to the jury and the defendant is not.

Judge/attorney characteristics. Relatively little attention has been devoted to the influence of factors related to the characteristics of attorneys and judges on jury outcomes. With regard to judges, Badzinski and Pettus (1994) varied the gender and nonverbal involvement of the judge in a mock jury trial and found no effect of either variable on jury verdicts. On the other hand, a field study by Blanck (1985) yielded relationships between jury verdicts and several dimensions of judges' verbal and nonverbal behavior. Blanck had independent observers rate various aspects of the judges' behavior from videotaped segments of their final instructions to the jury. Guilty verdicts returned by the jury tended to coincide with judges who were rated as less professional, less dominant, less competent, less dogmatic, and less wise. On the whole, however, little work has been conducted on the characteristics of judges.

In contrast to judges, a small but growing number of investigations have focused on characteristics and behaviors of attorneys at trial. With regard to demographic characteristics, two older mock jury studies examined the impact of attorney gender, with one study observing no effect on jury verdicts (Johnson, 1985) and the other obtaining a higher acquittal rate when the defense attorney was male (McGuire & Bermant, 1977). In a third mock jury study, Kaplan and Miller (1978) examined the impact of annoying behavior on the part of the respective attorneys and judges leading to trial delays. Although the initial verdict preference distributions reflected some degree of bias against the party with the offending attorney, the bias essentially disappeared after deliberation, suggesting juries were able to focus on the merits of the case. In contrast, Bernard et al. (1985) found that the level of moral reasoning associated with attorney arguments influenced juror verdict preference shifts during deliberation, with a strong leniency shift observed for jurors exposed to postconventional (i.e., principled) moral reasoning by the prosecuting attorney and conventional moral reasoning by

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the defense. Finally, a study of the deliberation transcripts from two earlier mock jury studies by Diamond, Casper, Heiert, and Marshall (1996) revealed only four references to attorneys during the average deliberation, and those comments focused on substantive points as opposed to personal characteristics or style.

Two studies have also examined attorney behaviors in actual trials. Focusing on potential primacy effects early on in trials, Linz, Penrod, and McDonald (1986) failed to find a relationship between the content or style of attorney opening statements and first-ballot votes during deliberation or final verdicts. In the second study, Hans and Swiegart (1993) analyzed the transcripts of interviews with 99 jurors from 14 civil cases for their perceptions of and reactions to attorneys. Jurors' responses suggest that attorneys are viewed rather skeptically, in some cases as "tricksters." Few jurors reported being drawn to either side by the attorneys' opening statements, but jurors did report that the opening statements provided a framework for understanding and interpreting the evidence. Key factors that distinguished perceptions of effective and ineffective counsel were demeanor, emotionality, and organization. In particular, jurors reported disliking extreme levels of emotion (i.e., too much or too little) that were inconsistent with the severity of the plaintiff's injuries and disliked the badgering of witnesses. Overall, there is little support for the existence of large and direct effects associated with attorney characteristics or their behavior, but some evidence from the two interview studies suggests that attorneys may exert their strongest influence at trial by providing a cognitive framework for jurors via their opening statements and closing remarks. Clearly, however, more research is needed in this area before firm conclusions are possible.

Case Characteristics

This category corresponds to a broad set of variables that vary from trial to trial, including characteristics of the evidence, case type, and case venue. Despite a good deal of research pertaining to the impact of evidence on juror decision making, there has been little attempt to examine the effect of different types of evidence or the relative importance of case characteristics vis-à-vis participant or procedural characteristics. Most of the studies in this category have either been mock jury studies conducted in the laboratory, involving the manipulation of case evidence, or archival studies focused on the outcomes of civil trials. Tables 3 and 5 provide summary information on empirical studies that have examined case characteristics.

Strength of evidence. Strength of evidence (SOE) is a global term referring to the quantity and quality of evidence presented by the plaintiff/prosecution during a trial. There is no doubt that SOE has an effect on jury verdicts—the real issue is to what extent. SOE has been treated differently in the various studies that have assessed its impact. In experimental studies with mock juries, SOE has been manipulated by varying eyewitness identification of the defendant (Greene, 1988; Leippe, 1985; Maass, Brigham, & West, 1985; Spanos, Myers, DuBreuil, & Pawlak, 1992–1993), specific aspects of the defendant's behavior (Goodman et al., 1998; Greene, Johns, & Bowman, 1999; Hazelwood & Brigham, 1998), the presence of a corroborating witness (Duggan et al., 1989), the presence of "additional" evidence such as polygraph data (Markwart & Lynch, 1979; Spanos

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et al., 1992–1993), and the number of incriminating/exonerating facts provided in trial stimulus materials (Caretta & Moreland, 1983; Kaplan & Miller, 1977, 1978; Valenti & Downing, 1975). In field studies, SOE has been examined indirectly, using various case characteristics such as the nature of the crime (Barnett, 1985) or the number of testifying witnesses (M. A. Myers, 1979; Werner et al., 1985) and, more recently, through direct expert rating (Hans, 1998).

In general, as expected, SOE has shown a strong positive association with jury verdicts of guilt/liability. In studies in which SOE effects were reported or could be calculated, conviction rate differences as a function of SOE level (i.e., weak vs. strong) ranged from 24% to 70%. In particular, several studies found that corroborating eyewitness identification of the defendant had a substantial impact on jury verdicts, with conviction rates increasing from 0% to 24% in one study (Greene, 1988), 0% to 30% in a second study (Spanos et al., 1992–1993), 0% to 60% in a third (Maass et al., 1985), and 23% to 93% in yet another (Savitsky & Lindblom, 1986). Three studies focusing on defendant behavior found SOE to have moderate to large effects on jury verdicts, with conviction/liability rates differing by 18% (Landsman et al., 1998), 24% (Goodman et al., 1998), and 49% (Greene, Johns, & Bowman, 1999) as a function of SOE level. In one intriguing study, Goodman et al. (1998) varied actual defendant behavior in a child molestation case by having a confederate defendant make a videotape of a child placing stickers either on exposed body parts (i.e., hands, toes, bellybutton) or clothed body parts. The child participants then "testified" as to their experience in an actual courtroom setting. "Innocent" defendants who made the "clothed" movie were incorrectly convicted only 9% of the time, whereas "guilty" defendants who made the "exposed" movie were appropriately convicted 33% of the time. In contrast to these studies, only two laboratory studies have failed to find an impact of SOE on jury verdicts, and both of these studies manipulated SOE in a questionable fashion by including brief additional expert testimony on polygraph data presented in written trial stimulus materials (Markwart & Lynch, 1979; Spanos et al., 1992–1993).

In general, SOE has been manipulated in experimental settings to allow for a more fine-grained assessment of other focal variables. To determine the real magnitude of its impact, however, field research is needed that assesses SOE in the context of other relevant variables. Using case characteristics as surrogates for SOE, M. A. Myers (1979) found that the number of trial witnesses was positively related to the likelihood of conviction ($\beta = .22$), whereas Werner et al. (1985) found that the number of defense witnesses was positively associated with the probability of acquittal ($\beta = .21$). Curiously, in contrast to the laboratory studies noted previously, M. A. Myers (1979) did not find a significant effect for eyewitness identification, even after controlling for other factors. Snortum, Riva, Berger, and Mangione (1990) examined a sample of 406 drunk-driving cases that went to the jury; they found the conviction rate was strongly related to blood-alcohol content and performance on field sobriety tests. Several studies involving medical malpractice have found jury verdicts to be moderately to strongly related to expert judgments of physician negligence (Daniels & Andrews, 1989; Liang, 1997) and the quality of patient care (Farber & White, 1994; Taragin Willet, Wilczek, Trout, & Carson, 1992), whereas some of these as well as other studies have found damage awards to be moderately and positively related to the extent

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of plaintiff injury (e.g., Bovbjerg, Sloan, & Blumstein, 1989; Sloan et al., 1993). Furthermore, as noted previously, a number of studies have found legally relevant case characteristics (e.g., the number of aggravating factors, the number of mitigating factors) to be related to the likelihood of defendants receiving the death penalty for capital offenses (Baldus et al., 1983, 1998; Barnett, 1985; Judson et al., 1969). Finally, in perhaps the most direct assessment of the relationship in the field, Hans (1998) found that plaintiff success rate in civil trials was closely linked to SOE as rated by presiding judges. More precisely, plaintiffs were awarded damages in 85% of those cases in which the evidence was seen as favoring their side, 62% of evenly balanced cases, and 37% of the cases in which the evidence was seen as favoring the defense.

Overall, theoretical ambiguity regarding what makes a case "compelling" and the lack of an accepted metric for its measurement make it difficult to quantify precisely the impact of SOE on jury decisions. Nonetheless, efforts to manipulate SOE or capture its natural variation have produced large and robust effects on jury verdicts and postdeliberation verdict preferences as well as evidence of interaction with other variables (Chadee, 1996; Horowitz & Kirkpatrick, 1996; Kerr, Niedermeier, & Kaplan, 1999; Valenti & Downing, 1975). As Saks (1997) noted, the recognition by mock jury researchers that case materials must be balanced carefully, lest SOE swamp the effects of more subtle factors, testifies to the role that SOE plays in determining jury verdicts. In summary, there is ample evidence supporting the conclusion that SOE is the primary determinant of jury verdicts in criminal trials in most circumstances, but it remains to be determined how important SOE is relative to the many irrelevant biasing factors that may influence jury verdicts.

Inadmissible material. At some point in many trials, testimony is introduced or exhibits are presented that are immediately (or sometimes later) deemed inadmissible. The typical remedial procedure involves the judge instructing the jury to disregard the inappropriate evidence. Courts have thus implicitly accepted the notion that jurors can and do heed the direction of the judge, but social scientists have been more skeptical and have sought to determine empirically if jurors do in fact disregard inadmissible evidence.

Numerous juror-level studies have reported that jurors do consider evidence that has been ruled inadmissible, but only four studies have addressed the issue with deliberating juries (Caretta & Moreland, 1983; Kerwin & Shaffer, 1994; Sealy & Cornish, 1973a; Thompson, Fong, & Roesenhan, 1981). All four studies used designs in which jurors were exposed to additional information that was then ruled either admissible or inadmissible; one manipulated the presence or absence of inadmissible evidence while also varying its evaluative implications (Caretta & Moreland, 1983). In three of these studies, bias was assessed by examining the pre- and postdeliberation verdict preferences of deliberating jurors, specifically comparing the percentage of guilty votes in three conditions: (a) when additional evidence was ruled admissible, (b) when additional evidence was ruled inadmissible, and (c) when no additional evidence was presented. Jury use of the focal information can then be determined by comparing the two conditions when it is present to the control condition when it is absent, with bias indicated when the percentage favoring guilt in the inadmissible conditions differs from that in the control condition.

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In general, the four studies that examined the impact of courtroom-based rulings of inadmissibility suggest that jurors are influenced by inadmissible evidence to some degree, but the impact on jury verdicts is unclear (Caretta & Moreland, 1983; Kerwin & Shaffer, 1994; Sealy & Cornish, 1973a; Thompson et al., 1981). With regard to evaluative slant, jurors appear to be more influenced by inadmissible evidence when it supports the defendant (Thompson et al., 1981) and more likely to remind one another of judicial instructions regarding inadmissibility when such evidence favors the prosecution (Caretta & Moreland, 1983). Currently, the available data are consistent with the conclusion that inadmissible evidence has some effect on perceptions of guilt at the juror level—but given the juror-level focus of the relevant studies, it is not possible to draw conclusions on the degree to which inadmissible evidence affects jury verdicts. In all likelihood, the impact of inadmissible evidence seems likely to depend on other factors such as the specific content of the evidence, the credibility of its source, and its consistency with other evidence.

Pretrial publicity. Pretrial publicity is a particular type of inadmissible material that may influence prospective jurors long before they are seated in the jury box. Given the ferocious media attention focused on trials involving high-profile crimes and/or well-known defendants, it is likely that some individuals reporting for jury duty will have been exposed to information about the case through the media before the trial. The concern is that jurors' exposure to such information, which typically favors the prosecution, will reduce the defendant's chance of receiving a fair trial. An obvious solution—to ban media reports of crimes or investigations—is not considered acceptable in a free society. This creates a situation that has been referred to as the "free press–fair trial dilemma," and social scientists have sought to inform the issue by ascertaining the extent to which pretrial information does indeed influence jury verdicts. At the individual level, pretrial publicity has been examined frequently with nondeliberating mock jurors; a recent meta-analysis based on 44 studies reported a modest positive relationship ($r = .16$) between exposure to negative pretrial publicity and judgments of guilt (Steblay, Besirevic, Fulero, & Jimenez-Lorente, 1999). In contrast, only five studies have examined pretrial publicity at the jury level, but all of these studies produced evidence of bias consistent with the juror-level findings (R. W. Davis, 1986; Kerr et al., 1999; Kline & Jess, 1966; Kramer et al., 1990; Padawer-Singer & Barton, 1975).

The initial jury-level study on the topic by Kline and Jess (1966) exposed four juries to prejudicial pretrial publicity; four juries that were not exposed to the information served as a control. Only one of the four juries exposed to the pretrial publicity decided on conviction, whereas none of the control juries did so. Using a similar design, Padawer-Singer and Barton (1975) presented or withheld negative pretrial information to juries in two samples. In the first sample of 10 juries, there was no difference in conviction rate as a function of pretrial exposure. However, in the second and larger sample, juries exposed to the prejudicial information convicted 45% more often than the juries not exposed to the prejudicial information. R. W. Davis (1986) examined information slant (negative vs. neutral) and trial delay (immediate vs. delayed 1 week) and found effects related to both. Negative pretrial publicity produced a moderately higher conviction rate than neutral publicity (20% vs. 0%), whereas trial delay was associated with fewer

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hung juries and a corresponding increase in the number of acquittals. In a fourth study, Kramer et al. (1990) manipulated emotional and factual components of pretrial publicity in conjunction with trial delay. They found that juries exposed to publicity with a strong emotional content were more likely to convict than juries that were not (31% vs. 11%). Furthermore, juries exposed to high factual publicity tended to convict more often when there was no trial delay, whereas juries exposed to low factual publicity tended to convict more often after a delay. After examining changes in the pre- and postdeliberation verdict preferences of individual jurors, the authors concluded that deliberation exaggerated the biasing effect of pretrial publicity and that there was no reduction in bias associated with the judge's instruction to disregard the pretrial information.

Although these four studies suggest a consistent impact of negative pretrial publicity, a recent fifth study found that the impact of negative pretrial information is contingent on the strength of evidence presented at the trial. Kerr et al. (1999) manipulated exposure to negative pretrial information in the context of a weak prosecution case or a moderately strong case. They found a weak main effect of pretrial publicity consistent with the earlier studies, but the effect of bias also interacted with the strength of the prosecution's case. When the prosecution's case was weak, the bias associated with pretrial publicity was attenuated by deliberation and essentially disappeared. When the prosecution's case was moderately strong, deliberation increased the bias related to pretrial publicity. In sum, despite the limited jury-level research on this topic and the small samples in those studies that have been conducted, the consistent findings in the existing research point convincingly toward the conclusion that juror-level bias induced by negative pretrial publicity is not ameliorated by jury deliberation and may, in some instances, even be enhanced by it.

Expert testimony. Numerous studies have investigated the effect of expert testimony on mock juries, and various issues have been examined, including the presence or absence of expert testimony (Greene, Downey, & Goodman-Delahunty, 1999; Hosch, Beck, & McIntyre, 1980; Loftus, 1980; M. A. Myers, 1979; Schuller, 1992), the style and content of the presentation (Bennett, Leibman, & Fetter, 1999; Diamond & Casper, 1992; Gabora et al., 1993; Kovera, Borgida, Gresham, Gray, & Regan, 1997; Maass et al., 1985; Simon, 1967; Spanos, Gwynn, & Terrade, 1989), and the degree to which the expert's testimony is challenged (Brekke, Enko, Clavet, & Seelau, 1991; Greene, Downey, & Goodman-Delahunty, 1999; Spanos et al., 1989). Expert witnesses have provided testimony on the behavior of psychiatric patients (Simon, 1967), abused children (Gabora et al., 1993), rape victims (Spanos et al., 1991–1992), and battered women (Kasian et al., 1993; Schuller, 1992); appropriate damage awards (Diamond & Casper, 1992; Greene, Downey, & Goodman-Delahunty, 1999); and the intricacies involved in eyewitness identification (Hosch et al., 1980; Loftus, 1980; Maass et al., 1985; Spanos et al., 1992–1993).

With regard to content, there is some support for the intuitive notion that expert testimony has more influence on jury verdicts when an expert is not confronted with cross-examination (Spanos et al., 1991–1992) or contradicted by an opposing expert (Greene, Downey, & Goodman-Delahunty, 1999). However, a third study found that testimony from a neutral court-appointed expert was no more influential than expert testimony presented under adversarial conditions

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(Brekke et al., 1991). There is also some evidence suggesting that expert testimony is more influential when it is concrete or specific to the case (Gabora et al., 1993; Maass et al., 1985; Schuller, 1992; Sundby, 1997), but two studies failed to find an effect for degree of abstraction (Diamond & Casper, 1992; Simon, 1967) and a third study found that repetition was more important than concreteness (Kovera et al., 1997).

Perhaps the most notable observation about expert testimony, however, is the overall lack of impact it appears to have on jury decisions. A recent study by Bennett et al. (1999) serves as a clear illustration of this point. In this study, the effect of two versions of expert testimony was studied in the context of a mock jury study involving an automobile negligence case. In one version, the expert's testimony was accompanied by a sophisticated computer-animated simulation of the accident; in the other version, the expert arrived at the same conclusions but no computer-animated simulation was used. The case was carefully selected and high-quality computer simulations were painstakingly created, but there was still no impact on jury judgments of fault or damage awards. Even when the researchers conducted a follow-up study in which participants were asked to make individual decisions immediately after the presentation of the expert's testimony (i.e., when it should be most influential), there were no differences between the two experimental conditions.

The lack of impact observed in experimental laboratory studies is also corroborated by the reports of real jurors. As part of the Capital Jury Project, Sundby (1997) analyzed the transcripts of 152 jurors who sat on 36 penalty trials associated with capital murder cases in California. Jurors were asked about their perceptions of, and reactions to, three kinds of witnesses: professional experts, lay experts, and families and friends of the defendant. Of the three types, professional experts were most likely to be identified as making a negative impression that damaged their side's case, often being viewed as "hired guns" with little credibility. Professional experts that were seen as making a positive contribution to their side's case integrated their testimony with the facts and explained how their general points applied to the case at hand.

To conclude, logic suggests that expert testimony will have its greatest influence when it provides novel, useful information to the jury, and research indicates that expert testimony has more influence when tailored to the specific facts of the case at hand. It is clear that expert testimony is not accepted in a mindless fashion by gullible jurors awed by flashy credentials. Rather, expert testimony is scrutinized as intensively as the testimony of any other witness and even viewed somewhat cynically.

Scientific evidence. Scientific evidence refers here to technical information based on complex and systematic procedures unfamiliar to most if not all jurors. In particular, this includes chemical tests related to the analysis of blood, hair, urine, fingerprints, and DNA as well as ballistics tests and the analysis of polygraph data. Scientific evidence is typically gathered at the scene of the incident and then tested by professionals under laboratory conditions. At trial, experts are called on to describe the procedures used to gather and evaluate the evidence and then evaluate the degree of consistency between the test results and the actions of the accused. Often, these evaluations are made in terms of probabilities.

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The limited work that has been done on scientific evidence has focused on polygraph testing. Four studies have examined the impact of polygraph data; each found it to have little impact on juror verdict preferences or jury verdicts (Carlson, Pasano, & Jannuzzo, 1977; Markwart & Lynch, 1979; B. Myers & Arbuthnot, 1997; Spanos et al., 1992–1993). In an early study that indirectly examined the influence of polygraph data, individuals who had participated in a mock jury study were asked to consider additional hypothetical polygraph data contrary to their preferred verdict; a very low percentage of respondents indicated that the additional data would have changed their verdict preference (Carlson et al., 1977). Three subsequent studies that directly manipulated polygraph evidence presented to mock juries found little or no impact on jury verdicts (Markwart & Lynch, 1979; B. Myers & Arbuthnot, 1997; Spanos et al., 1992–1993) and a general lack of attention to polygraph data during deliberation (Markwart & Lynch, 1979; B. Myers & Arbuthnot, 1997). The reason for this consistent lack of impact, however, is unclear. Jurors may truly perceive polygraph data as unreliable, arbitrary, or just presumptive of their role, but the manipulations related to the polygraph data have also been relatively weak, usually consisting of brief testimony from a polygraph expert and involving a stated accuracy rate between 80% and 90%. Currently, little can be said about the impact of scientific evidence, or the contextual factors that determine when and how strongly it will affect jury decisions.

Deliberation Characteristics

Common sense suggests that the nature of the jury's discussion during deliberation is a primary determinant of a jury's verdict. This notion has been promoted in the media through films such as "Twelve Angry Men" (1957) that depict deliberation as the convergence of reason, eloquence, and openmindedness. Kalven and Zeisel's (1966) surprising finding that the initial majority almost always carries the day has no doubt suppressed some scientific interest in studying deliberation, but its potential to affect the decision-making process remains. Early work in this area associated with the Chicago Jury Project focused on topics such as foreperson selection, juror participation, and the content of discussion; recent work has continued to examine these issues along with opinion polling, individual preference change, and sequence and order issues. Tables 4 and 5 provide summary information on empirical studies that have examined deliberation characteristics.

Initial verdict preferences. There are compelling data from numerous studies indicating that the verdict favored by the majority of the jury at the beginning of deliberation will be the jury's final verdict about 90% of the time. This finding has been observed in several field studies (i.e., Kalven & Zeisel, 1966; Sandys & Dillehay, 1995) as well as numerous studies of mock juries in controlled settings (MacCoun & Kerr, 1988). Research based on the SDS approach has furthered an understanding of the specific relationship between the size of the majority and the probability that their preferred verdict will be the jury's final choice. The SDS literature suggests that strong majorities (typically defined as two thirds or greater) usually win, whereas weak majorities and evenly split juries tend to acquit or hang (J. H. Davis, 1973; MacCoun & Kerr, 1988). MacCoun and Kerr (1988) conducted a meta-analysis of 12 studies that obtained juror verdict pref-

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erences prior to deliberation as well as final jury verdicts. They found that initial two-thirds majorities favoring conviction succeeded in obtaining a guilty verdict 67% of the time, whereas two-thirds majorities favoring acquittal won an overwhelming 94% of the time. In addition, the authors also found that the range of success rates across studies for initial two-thirds majorities was much greater for pro-conviction factions (0%–100%) than pro-acquittal factions (91%–100%). MacCoun and Kerr concluded that, in addition to a strong majority influence effect, their analysis also supported the existence of an asymmetrical leniency effect that favored acquittal.

Table 6 displays the results of an extension and update of MacCoun and Kerr's (1988) work. The table summarizes verdict outcomes for each possible verdict preference distribution in 6- and 12-person juries. The values in the

Table 6
Summary of Studies Examining Juror Predeliberation Verdict Preferences and Jury Verdicts

Initial preference distribution	Cumulative raw frequencies			Cumulative percentage frequencies			Percentage frequencies (excluding hung verdicts)	
G, NG	G	NG	Hung	% G	% NG	% hung	% G|V	% NG|V
12, 0	84	0	2	97.7	0.0	2.3	100.0	0.0
11, 1	23	0	2	92.0	0.0	8.0	100.0	0.0
10, 2	11	0	6	64.7	0.0	35.3	100.0	0.0
9, 3	11	0	16	40.7	0.0	59.3	100.0	0.0
8, 4	5	3	9	29.4	17.6	52.9	62.5	37.5
7, 5	2	5	17	8.3	20.8	70.8	28.6	71.4
6, 6	9	15	14	23.7	39.5	36.8	37.5	62.5
5, 7	1	14	6	4.8	66.7	28.6	6.7	93.3
4, 8	0	13	6	0.0	68.4	31.6	0.0	100.0
3, 9	0	12	1	0.0	92.3	7.7	0.0	100.0
2, 10	0	13	1	0.0	92.9	7.1	0.0	100.0
1, 11	0	11	1	0.0	91.7	8.3	0.0	100.0
0, 12	1	34	0	2.9	97.1	0.0	2.9	97.1
6, 0	51	0	1	98.1	0.0	1.9	100.0	0.0
5, 1	136	5	23	82.9	3.0	14.0	96.5	3.5
4, 2	164	72	129	44.9	19.7	35.3	69.5	30.5
3, 3	66	232	149	14.8	51.9	33.3	22.1	77.9
2, 4	12	273	59	3.5	79.4	17.2	4.2	95.8
1, 5	1	178	14	0.5	92.2	7.3	0.6	99.4
0, 6	0	95	2	0.0	97.9	2.1	0.0	100.0

Note. Data for this table were obtained from the following primary sources: J. H. Davis, Kerr, et al. (1977), J. H. Davis et al. (1978, 1984, 1988), Foss (1981), Kalven & Zeisel (1966), Kameda (1991), Kerr (1982), Kerr & MacCoun (1985), Kerr et al. (1976, 1979), Kramer et al. (1990), MacCoun (1990), Nemeth (1977), Sandys & Dillehay (1995), Tanford & Penrod (1986), Tindale et al. (1990), and Zeisel & Diamond (1978). Data for the following studies were taken from MacCoun & Kerr (1988): Kaplan & Miller (1977), Kerr (1981), and Shaffer et al. (1986). Data for Kessler (1973) were obtained from Zeisel & Diamond (1974). Data for the following studies were supplied by J. H. Davis and G. Stasser (respectively): J. H. Davis et al. (1975, 1981), Stasser & Davis (1981). G = guilty; NG = not guilty; V = verdict.

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left-hand column refer to the number of jurors preferring guilt at the beginning of deliberation and the number preferring acquittal (respectively). To this point, the SDS with the most support in the empirical literature has been the "two-thirds majority, otherwise acquit" scheme. Focusing on the cumulative percentage frequencies in Table 6, the "two-thirds majority" primary scheme receives mixed support with both jury sizes. This SDS predicts a substantial increase in success rates for majorities at values of (8, 4) and (4, 2) for pro-conviction majorities and (4, 8) and (2, 4) for pro-acquittal majorities. However, inspection of Table 6 reveals that the largest increase in success rate occurs between (10, 2) and (11, 1) for pro-conviction majorities in 12-person juries and (4, 2) and (5, 1) in 6-person juries. This is consistent with a critical threshold for conviction being somewhat higher than two thirds. On the other hand, the success rate of pro-acquittal factions jumps markedly between the (2, 4) and (3, 3) distributions as expected in 6-person juries; however, in 12-person juries, the largest increase in success rate occurs between the (4, 8) and (3, 9) distributions. This pattern is also inconsistent with a two-thirds majority constituting some sort of critical mass. Given that hung juries occur much more frequently in laboratory studies than real trials, it is perhaps more instructive to examine the percentage frequencies for only those juries that reached a verdict (i.e., the last two columns of the table). Examination of these data indicates that the biggest increase in success rate for pro-conviction majorities occurs between (4, 2) and (5, 1) for pro-conviction factions in 6-person juries and between (8, 4) and (9, 3) in 12-person juries, whereas the odds of acquittal increase dramatically when the pro-acquittal faction represents 33% or more of the jury (i.e., 4, 2 in 6-person juries and 8, 4 in 12-person juries).

To summarize, these data do not support the notion of a critical threshold involving two thirds of the jurors. Indeed, these data are consistent with the conclusion that the critical threshold for conviction is between .75 and .83, whereas the critical threshold for acquittal is between .67 and .50. In other words, these data suggest that if 7 or fewer jurors favor conviction at the beginning of deliberation, the jury will probably acquit, and if 10 or more jurors believe the defendant is guilty, the jury will probably convict. With 8 or 9 jurors initially favoring conviction, the final verdict is basically a toss-up.

Despite this general analysis, SDS use may be contingent on other factors such as juror characteristics, case characteristics, charge sequence, verdict options, legal definitions, and so forth. There has been no systematic work on these issues thus far, but isolated studies have compared SDSs across jury size (J. H. Davis et al., 1975; Kerr & MacCoun, 1985), charges (Tanford & Penrod, 1986), charge consideration order (J. H. Davis, Tindale, Nagao, Hinsz, & Robertson, 1984), evidence strength (Foss, 1981), and reasonable doubt definition (Kerr et al., 1976). On the whole, these studies do not suggest substantial differences in SDS usage as a function of contextual variables associated with the trial.

The most significant potential moderator of SDS usage, however, may be the distinction between mock juries and real juries. Most SDS studies have been conducted in the laboratory; only three published field studies have addressed the issue by using reports of first-ballot vote distributions and final verdicts (Kalven & Zeisel, 1966; Sandys & Dillehay, 1995; Zeisel & Diamond, 1978). Furthermore, Sandys and Dillehay (1995) and Kalven and Zeisel (1966) collapsed their data into five vote distributions (i.e., unanimous–conviction, majority–convic-

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tion, evenly split, majority–acquittal, and unanimous–acquittal). Kalven and Zeisel (1966) found a 50% conviction rate in their 10 evenly divided juries, whereas Sandys and Dillehay found a 71% conviction rate in the 24 juries that were evenly split juries on the first ballot. These conviction rates are considerably discrepant from the much lower rates typically observed with corresponding mock juries in the laboratory. There is also some indication from the Capital Jury Project that juries that begin deliberation without consensus may tend to choose death sentences more often than life sentences as the result of undecided jurors being more likely to opt for death than life (Eisenberg & Wells, 1993). This finding is particularly surprising in that capital penalty trials would seem to present the most favorable conditions for the occurrence of leniency effects. Overall, although there is clearly not yet enough data to draw a definitive conclusion, the strong leniency bias observed in laboratory studies may be weaker or less reliable in actual juries.

Deliberation structure. Given the abundant evidence of order effects in individual and group decision making, issues related to sequence would seem to be a fruitful line of inquiry for jury researchers. However, only two studies have investigated the role played by the order in which juries perform tasks or carry out procedures. In the first study on this topic, J. H. Davis et al. (1984) had mock juries reach verdicts on three separate charges (reckless homicide, aggravated battery, and criminal damage to property) using one of three possible orderings: descending seriousness, ascending seriousness, or discretionary. Focusing on the aggravated battery charge heard second in the two assigned orderings, J. H. Davis and his colleagues found that juries convicted more often when they considered the charges in descending order of seriousness; the probability of conviction was also higher for subsequent charges if the jury had convicted on a prior charge. In another study, Kameda and Sugimori (1995) composed juries with an initial two-thirds majority (i.e., 4 vs. 2) preference distribution in a capital offense case and had half of the juries meet in 3-person subgroups to discuss the case before re-forming into a 6-person jury. These "two-step" juries were divided in such a way that one subgroup always contained both minority advocates, thus constituting a "local majority" in one of the subgroups. Kameda and Sugimori found that the two-step juries never opted for the death penalty and generally were hung, whereas the one-step juries usually selected the death penalty.

Deliberation style refers to the manner in which juries approach their task of reaching a verdict, particularly the initial stages (Hastie et al., 1983). In the first study on the topic, Hastie et al. (1983) found that 28% of juries took an immediate vote on entering the deliberation room and then focused their discussion around the verdict options (verdict-driven), 35% postponed the first vote until after extensive discussion had taken place and structured their discussion around systematic evaluation of the evidence (evidence-driven), and 38% displayed a mixed style. Subsequently, Cowan et al. (1984) found that 50% used a verdict-driven style and the other half used an evidence-driven style. In contrast to this descriptive focus, Kameda (1991) manipulated deliberation style by assigning juries a particular way of reaching their verdicts and found that deliberation style interacted with case characteristics to affect jury verdicts. Using stimulus materials from a civil trial, juries were instructed to use either an *elemental* style in which individual jurors made personal judgments before group discussion (i.e.,

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verdict-driven) or a *compound* style in which the entire jury considered the two criteria in succession as a whole (i.e., evidence-driven). Kameda observed that juries using the elemental style were more likely to find the defendant liable in a case in which two legal criteria were identified as necessary for a verdict of liability (i.e., conjunctive criteria) but less likely to return liability verdicts when either criterion alone was sufficient (i.e., disjunctive criteria). In contrast, juries assigned to use the compound style returned fewer liable verdicts when faced with conjunctive criteria and more liable verdicts when dealing with disjunctive criteria.

Polling mechanics. Researchers have long suspected that procedural variation in the way that opinions are expressed within a group may affect the ultimate collective decision. Several studies by James Davis and his colleagues have addressed the role of opinion polling in the jury room (J. H. Davis, Kameda, Parks, Stasson, & Zimmerman, 1989; J. H. Davis, Stasson, Ono, & Zimmerman, 1988; J. H. Davis et al., 1993; Kerr & MacCoun, 1985). In general, these studies suggest that individual preference change during deliberation is influenced by polling regularity, polling format (i.e., public vs. secret), poll timing (early vs. late), and the prior sequence of votes.

With regard to polling regularity, Kerr (1982) noted that juries polled at regular intervals were somewhat less likely to hang than juries that were not, whereas J. H. Davis et al. (1993) found that mandated polling at regular intervals produced longer deliberation times and more hung juries, but also larger damage awards, when the defendant was found liable. Two studies have addressed polling secrecy. J. H. Davis et al. (1976) reported that private polling produced fast initial preference change that tailed off quickly, whereas public polling resulted in slow initial movement that gained speed. Using deliberation time as a proxy for evidence ambiguity, Kerr and MacCoun (1985) found that polling format was not associated with verdicts when cases clearly favored one side; however, compared with private polling, 6-person juries hung less and 12-person juries hung more with public polling when cases were close.

Across several studies, Davis and his colleagues (J. H. Davis et al., 1988, 1989, 1993) have also investigated sequence effects related to polling in general and "local majorities" in particular. Local majorities occur when one faction appears to constitute a majority because of the particular sequence in which jurors vote when, in fact, that faction does not represent the majority. The procedure used in these studies has been to create mock juries with known verdict preference distributions (i.e., evenly split or a two-thirds majority) and have their members vote either in a predetermined sequence or simultaneously while varying the timing of the first vote. Two studies found that "critical" jurors (i.e., the first member to vote from a given faction) were more likely to change their votes when all preceding votes had been cast for the opposing verdict (J. H. Davis et al., 1988, 1989). In general, the magnitude of this effect, however, was contingent on the timing of the poll (before any discussion or after 5 min) and on the faction voting first (i.e., guilty vs. not guilty).

Focusing on evenly split juries, J. H. Davis et al. (1988) found that preference change by pro-acquittal jurors voting fourth was 5 times more likely than base rate (i.e., preference change by jurors in simultaneous-voting juries) when preceded by 3 guilty votes and the poll was taken early but not later. In contrast, preference

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change by pro-conviction jurors was considerably higher than the base rate at both times, particularly with the delayed poll. This is consistent with the emergence of a leniency norm. With regard to jury-level impact, juries that voted sequentially were 14% more likely to acquit when the "not guilty" faction voted first (75%) compared with when the "guilty" faction voted first (61%), whereas the acquittal rate for juries voting simultaneously fell in between these two values (69%). J. H. Davis et al. (1989) observed a similar pattern of preference change by the first voter in the second faction, as well as the interaction with poll timing, while examining juries with two-thirds majorities (i.e., 4, 2 and 2, 4 compositions). As in evenly split juries, majority-faction jurors voting third were much more likely to change their votes than corresponding jurors in the simultaneous-voting conditions. Furthermore, J. H. Davis et al. (1993) extended the examination of sequence effects to award determination in civil juries and found that the preceding sequence of monetary values (i.e., ascending vs. descending) affected subsequent juror damage recommendations, especially when the poll was taken after 5 min of discussion. Collectively, these three studies suggest strongly that the polling sequence may influence juror preference changes during deliberation, but the extent to which polling influences jury verdicts is not yet clear.

Faction shifts. Several studies have traced the path taken by a jury as it moves toward consensus (J. H. Davis et al., 1976; Kerr, 1981, 1982; Stasser & Davis, 1977) by monitoring the timing of individual juror preference change. Some studies have instructed mock juries to take polls at regular intervals (i.e., J. H. Davis et al., 1976), whereas others have measured juror verdict preference changes continuously, using electronic media (e.g., Kerr, 1981, 1982). In addition to the finding of effects related to polling (J. H. Davis et al., 1976, 1988, 1989, 1993), these studies suggest collectively that individual preference change is a function of the current preference distribution (Hastie et al., 1983; Kerr, 1981; Kerr & MacCoun, 1985; Stasser & Davis, 1977, 1981) as well as the sequence of prior change (Kerr, 1981), the number of arguments supporting each option (Stasser, Stella, Hanna, & Collella, 1984), and special instruction from the judge (Smith & Kassin, 1993).

Of particular note, there appears to be a momentum effect independent of the well-established majority effect. Kerr (1981) found that movement from the initial distribution of votes tended to start slowly and gain speed as consensus neared, with rare changes in direction. In fact, the first shift in the preference distribution was actually a better predictor of the final verdict than the first-ballot distribution, but no data were reported for a model incorporating both factors. An early study by J. H. Davis et al. (1976) partially corroborated this finding in that juries that voted publicly moved slowly toward consensus at first and gained speed, but juries that voted privately tended to show the opposite pattern. With regard to the underlying cause of preference shifts, Stasser et al. (1984) composed juries with initial two-thirds majorities and had two members of the majority argue for the opposing verdict in some conditions. Individual preference change was found to be a function of the number of arguments offered to support the two verdict options as opposed to the initial preference distribution, suggesting that the ubiquitous majority effect is mediated by information exchange as opposed to conformity pressure.

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Foreperson characteristics. There has been strong and enduring interest in the role of the foreperson and the manner in which that individual is selected. Early work associated with the Chicago Jury Project focused on characteristics of the jurors (particularly the foreperson) and their relationships with outcomes such as juror influence and participation. Many studies have documented the tendencies for forepersons to be male (Beckham & Aronson, 1978; Boster et al., 1991; Cowan et al., 1984; Dillehay & Nietzel, 1985; Hastie et al., 1998; Kerr et al., 1982; Sannito & Arnolds, 1982; Strodtbeck & Lipinski, 1985), better educated (Diamond & Casper, 1992; Foley & Pigott, 1997b; Hastie et al., 1998), seated at the end of the table (Cowan et al., 1984; Diamond & Casper, 1992; Strodtbeck & Lipinski, 1985), higher status (Baldwin & McConville, 1980; Strodtbeck & Lipinski, 1985), experienced with regard to jury service (Cowan et al., 1984; Dillehay & Nietzel, 1985; Kerr et al., 1982), one of the first jurors to speak (Diamond & Casper, 1992; Sannito & Arnolds, 1982), and/or the first juror to mention the need to choose a foreperson (Boster et al., 1991; Strodtbeck & Lipinski, 1985). The selection process appears to be very brief, with little discussion of individual merit (Bridgeman & Marlowe, 1979; Strodtbeck & Lipinski, 1985). Forepersons also tend to participate more than others (Hastie et al., 1983; Velasco, 1995), accounting for 25%–35% of the speaking during deliberation (Simon, 1967; Strodtbeck & Lipinski, 1985); they also influence speaking time and order (Manzo, 1996).

In addition to providing a descriptive profile, research on forepersons suggests they may be more influential than other jurors. In particular, several studies collectively imply that forepersons can have a major impact on damage awards in civil trials, although no study has found forepersons to be disproportionately influential with regard to liability verdicts. Two studies have reported that forepersons influenced jury damages using designs in which confederate jurors argued for specified amounts (Bevan, Albert, Loiseaux, Mayfield, & Wright, 1958; Eakin, 1975), with one study finding forepersons to be more influential when arguing for smaller as opposed to larger amounts (Eakin, 1975). More recently, Boster et al. (1991) found that foreperson predeliberation award preferences were strongly related to final jury awards (especially in larger juries), whereas Diamond and Casper (1992) obtained a correlation of .44 between the foreperson's preferred damage award prior to deliberation and the jury's final award. Overall, forepersons tend to have reliable demographic characteristics and appear to have more impact than the average juror when it comes to determining damage awards.

Deliberation content. As can be seen in Tables 1–5, many studies have examined in detail what juries discuss behind closed doors. Most of these studies have used mock juries, but only a few surveyed or interviewed real jurors (Bridgeman & Marlowe, 1979; Kalven & Zeisel, 1966; Reed, 1965; Sandys & Dillehay, 1995). Typically, study-specific coding schemes have been constructed to examine discussion content related to specific factors of interest such as expert testimony (Brekke et al., 1991), pretrial publicity (R. W. Davis, 1986), and the standard of proof (Horowitz & Kirkpatrick, 1996), but several broad categories have emerged as well (e.g., case facts, judicial instructions, verdict options, witness credibility, personal experiences). Although several early studies indicated that jurors spend a fair amount of time talking about their personal experiences or other irrelevant topics (e.g., Reed, 1965), more recent work indicates

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that jurors spend most of their time talking about the facts of the case, the judge's instructions, and the expressed verdict preferences of members (e.g., Ellsworth, 1989; Hastie et al., 1998; Horowitz & Kirkpatrick, 1996; Sandys & Dillehay, 1995; Tanford & Penrod, 1986).

Given the predictive efficacy of predeliberation verdict preferences, perhaps the most salient issue related to deliberation content is its degree of impact on deliberation outcomes. A few studies have directly addressed this issue by regressing jury verdicts on the number (or percentage) of jurors favoring a particular outcome prior to deliberation in an initial step and then adding selected deliberation variables (such as the number of positive statements made about the defendant) at later steps. Using this procedure, several studies revealed that deliberation variables provided incremental validity over predeliberation preference distribution on jury verdicts with regard to predicting jury verdicts or postdeliberation juror verdict preferences (Hastie et al., 1998; Horowitz, 1988; Tanford & Penrod, 1986). Of particular interest, Tanford and Penrod (1986) noted that the incremental contribution of deliberation variables was greatest for the first of the three charges, suggesting that discussion content may influence early votes during deliberation but that normative pressure associated with faction size is the primary determinant of later votes.

Finally, although most research on deliberation has focused on the quantity of discussion on certain topics, it is also possible to examine key events, activities, or patterns that occur during deliberation. In an innovative study by Holstein (1985), participants indicated the number of potential explanations (i.e., theories) considered by their jury regarding the defendant's behavior as well as the time at which these theories were introduced. The more theories considered by the jury, the longer it took to reach consensus and the more likely the jury was to hang.

Summary. The picture of deliberation that emerges from studies of the deliberation process is as follows: Once in the deliberation room, juries quickly perform one of the few specific tasks they are given—choosing a foreperson. This person is often a man sitting at the head of the table who mentions the need to select a foreperson, especially if that individual has prior experience as a juror (Beckham & Aronson, 1978; Cowan et al., 1984; Hastie et al., 1983; Strodtbeck & Lipinski, 1985). If the jury adopts an evidence-driven style, after a foreperson is chosen, discussion of the facts begins. If the jury takes a verdict-driven approach, a poll is quickly taken to determine where members stand (Sandys & Dillehay, 1995). Men and persons of high social status tend to participate more, as do individuals in smaller juries; a few members of larger juries generally say little or nothing (Hastie et al., 1983). The jury moves slowly from its initial state at first and continues moving in the direction of the first move, picking up speed as consensus looms. Rarely does the movement toward consensus in verdict preferences reverse itself once it begins to move in a particular direction (Kerr, 1981, 1982). A major focus of discussion is the construction or identification of a reasonable story explaining the motives and actions of the defendant (Hastie et al., 1983). The tone and content of discussion may be influenced by the number of interpretations offered to the group (Holstein, 1985); the timing, format, and voting sequence of opinion polls (J. H. Davis et al., 1988, 1989, 1993; Kerr & MacCoun, 1985); the order in which charges are considered (J. H. Davis et al., 1984); and the deliberation style used by the jury (Kameda, 1991). In particular,

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the more evidence interpretations considered, the longer deliberation lasts and the more likely the jury is to hang (Holstein, 1985). Forepersons may be somewhat more influential than other jurors (Boster et al., 1991), perhaps because of their ability to call for opinion polls at key moments and/or create local majorities by starting the poll with jurors known to have preferences in accord with their own. The percentage of time spent on different topics during deliberation is likely to be a function of many factors, including the composition of the jury, the nature of the crime, and trial complexity. Overall, juries appear to be fairly effective at uncovering and reviewing case facts during most deliberations as well as identifying factual errors made by their members (Ellsworth, 1989; Hastie et al., 1983). In contrast, comprehension of the judge's instructions usually leaves a great deal to be desired. Jury-level misunderstanding of the law appears to be serious and pervasive.

Discussion

Primary Findings

A primary focus of this review has been to identify variables with sizeable effects on jury decision outcomes. The following represents a consolidated list of these variables: (a) definitions of key legal terms, (b) verdict/sentence options, (c) trial structure (i.e., bifurcation and severance/joinder), (d) juror–defendant demographic similarity, (e) jury personality composition (i.e., dogmatism/authoritarianism), (f) jury attitude composition (i.e., toward accused persons or the death penalty), (g) defendant criminal history, (h) strength of evidence, (i) pretrial publicity, (j) inadmissible evidence, (k) case type (for civil trials), and (l) initial juror verdict preference distribution. Some of these effects are based primarily on well-designed mock jury studies (i.e., definitions of key legal terms, verdict/sentence options, jury personality composition, inadmissible evidence, pretrial publicity), but many are backed by converging evidence from the laboratory and the field (i.e., trial structure, jury attitude composition, defendant criminal history, strength of evidence, case type, initial juror verdict preferences). Some topics not included in this list are associated with small yet reliable effects (e.g., jury size), mixed results suggestive of higher order interactions (e.g., juror experience, decision rule, expert testimony), or potential effects that require more research to draw firm conclusions (e.g., juror note-taking, juror question-asking, defendant appearance, plaintiff characteristics, deliberation style, foreperson effects on damage awards).

It is worth reiterating at this point that each methodology used to study jury decision making has strengths and weaknesses. To a large extent, the strengths and weaknesses of the various approaches are complementary and, ideally, each topic would be studied with a combination of methods. The use of mock juries has been criticized by some researchers for lacking realism and thus external validity, but no other approach is capable of yielding the same degree of control over influential extraneous factors, particularly characteristics of the case. Of course, some mock jury studies, particularly those conducted in the 1970s and early 1980s, lack important elements of mundane realism (e.g., visual media), but mock jury research has improved considerably in this regard over the last 15 years (Diamond, 1997) and the available data suggest that mock juries operate similarly

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to actual juries in any case (Bornstein, 1999; Saks, 1997). Conversely, field research offers the benefit of studying the "real thing," but conclusions are often plagued by missing or contaminated measures of key variables. Perhaps the single strongest design is that which combines the best features of the laboratory and the field: the field experiment. When this approach involves random selection and random assignment, the resulting data can be extremely powerful. Unfortunately, it is rarely possible to conduct field experiments with actual juries.

In the remainder of this section, themes that cut across multiple topics are identified and discussed, a summary is offered regarding what is known about civil jury decision making, and practical implications as well as future research needs are considered.

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Emergent Themes

Theme 1: Jurors often do not make decisions in the manner intended by the courts, regardless of how they are instructed. The model of decision making endorsed (at least implicitly) by most courts is one in which jurors are assumed to pay complete attention, withhold judgment until all of the facts are in, discard any information that the judge so instructs, and carefully weigh a host of intangible factors. Several decades of research on human cognition suggest that this model rarely, if ever, holds in the real world. Instead, decisions are based on past experience in the form of scripts, schemas, stereotypes, and other cognitive mechanisms as well as personal beliefs and values about what is right, wrong, and fair. Information perceived as relevant and useful will almost invariably be used to help make sense of a complex and confusing chain of events. Attitudes are holistic entities that form quickly and influence subsequent information processing, and they are quite robust once formed.

The findings from this review are consistent with these social psychological principles. As with jurors, juries also appear to have problems processing information in a prescriptively optimal fashion. For instance, jury verdicts are influenced by the exposure of their jurors to pretrial publicity and inadmissible evidence (e.g., Caretta & Moreland, 1983; R. W. Davis, 1986; Kerr et al., 1999; Kramer et al., 1990; Padawer-Singer & Barton, 1975; Thompson et al., 1981), and defendants with prior felony convictions are more likely to be found guilty (Blanck, 1985; Borgida & Park, 1988; Hans & Doob, 1976) or sentenced to death (Baldus et al., 1983; Barnett, 1985). Jurors also do not keep things separate as they are expected to, as evident in the increased probability of conviction/liability in joined trials (Horowitz & Bordens, 1988; Tanford & Penrod, 1984), the influence of plaintiff injury on liability judgments (Greene, Johns, & Bowman, 1999), and the tendency for bifurcated juries to return more pro-defense verdicts, but also higher damage awards and more death penalty sentences, than nonbifurcated juries (Horowitz & Bordens, 1990; Landsman et al., 1998; Zeisel & Callahan, 1963). The primary means of correcting these flaws in jurors' thinking has been the use of limiting instructions by the judge. It is clear, however, that these instructions are rarely effective (Kramer et al., 1990; Shaw & Skolnick, 1995; Tanford & Penrod, 1984). This inability of jurors to control their fundamental, "hardwired" cognitive processes should not come as a shock. What is surprising

is that judicial instructions are still relied on as the primary corrective measure (Lieberman & Arndt, 2000).

Theme 2: Dispositional characteristics may predict jury outcomes better than juror verdict preferences. A substantial amount of research on individual jurors and mock jurors has attempted to identify dispositional characteristics related to juror verdict preferences. It has been a source of discouragement to some, and relief to others, that so many studies have yielded so little evidence that individual verdict preferences are reliably predicted by personal characteristics. Attempts to account for juror verdict preferences using large samples and comprehensive variable sets indicate that, in general, predictive accuracy can only be increased by 5–15% with knowledge of these variables (Diamond, Saks, & Landsman, 1998; Hastie et al., 1983; Penrod, 1990; Saks, 1997).

At the same time, it is important to recognize that the lack of a relationship between a particular characteristic and juror verdict preferences does not imply independence at the jury level. Indeed, this review indicates that bias associated with trial participants may be substantial in some instances, particularly bias stemming from jury–defendant demographic similarity (Adler, 1973; Chadee, 1996; Daudistel et al., 1999; K. S. Klein & Klastorin, 1999; Nagel & Weitzman, 1972; Perez et al., 1993), jury personality composition with regard to authoritarianism/dogmatism (Bray & Noble, 1978; Kerwin & Shaffer, 1991; Shaffer & Case, 1982; Shaffer et al., 1986), and jury attitudes toward accused individuals and verdict options (Bernard & Dwyer, 1984; Cowan et al., 1984; Horowitz & Seguin, 1986). However, several factors may serve to limit the influence of composition bias in actual trials. First, it may be necessary for some critical threshold to be met with regard to the number of similar jurors before composition bias becomes operative. Bias related to jury composition has tended to occur in studies where composition was manipulated to create juries that were homogeneous with regard to some focal variable (e.g., Bray & Noble, 1978; Chadee, 1996; Daudistel et al., 1999; J. H. Davis et al., 1978; Nagel & Weitzman, 1972). This suggests composition bias may be limited to situations in which most members of a jury are similar in some regard, for example, female, death-qualified, authoritarian, or highly cynical toward accused persons. Second, random variation and voir dire (which may have a quasi-random effect for unobservable characteristics) probably serve to prevent most juries from achieving a level of homogeneity sufficient to activate composition biases. Third, in keeping with the overwhelming influence of the evidence, composition bias should have little impact when the evidence clearly favors one side or the other (e.g., Kerr et al., 1999). Finally, due to sensitivity associated with the scale of measurement, bias related to jury composition may have less impact on dichotomous measures (such as verdicts) and stronger effects on continuous variables (such as prison sentences and damage awards).

Theme 3: Kalven and Zeisel's (1966) "liberation" hypothesis is alive and well. Kalven and Zeisel (1966) noted early on that the weight of the evidence was the primary determinant of most jury verdicts. However, when the evidence did not clearly favor one side, they hypothesized that jurors would be liberated from the constraints of the evidence and thus most susceptible to influence from extraneous (biasing) factors. Clearly, jury decisions are influenced by the quality and quantity of the evidence, with a strong and consistent relationship observed

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between strength of evidence and jury verdicts across many studies in both the laboratory and the field. Furthermore, studies that have observed bias attributable to procedural and/or participant characteristics have tended to involve ambiguous evidence. In particular, biasing factors (e.g., pretrial publicity) have been found to have little to no impact when SOE is weak or very strong and have their greatest influence on jury decisions when SOE is moderate. In particular, SOE interactions have occurred in conjunction with jury size (Valenti & Downing, 1975), jury–defendant similarity (Chadee, 1996), negative pretrial publicity (Kerr et al., 1999), standard of proof definition (Horowitz & Kirkpatrick, 1996), and verdict options (Savitsky & Lindblom, 1986). Moreover, the work by Baldus et al. (1983, 1998) and Barnett (1985) is consistent with the liberation hypothesis in that disparities in the imposition of the death sentence related to victim and defendant race tend to occur under conditions of moderate defendant culpability.

Theme 4: Deliberation processes do influence jury outcomes in some situations. Kalven and Zeisel (1966) adopted a fairly cynical view of the deliberation process, suggesting jury verdicts are essentially determined by the distribution of verdict preferences prior to deliberation in that the verdict preferred by the majority of members almost always becomes the jury's final verdict. Nevertheless, existing field work (Kalven & Zeisel, 1966; Sandys & Dillehay, 1995) suggests that 1 in 10 trials results in a reversal of the verdict preference initially favored by the majority. Given the large number of jury trials each year, a substantial number of trials will necessarily hinge on the deliberation process. Thus, the issue of whether or not deliberation matters essentially amounts to a choice between viewing the deliberation glass as 90% empty or 10% full.

So what factors are responsible for the 10% of trials in which the will of the majority does not prevail? It is clear from the voluminous literature on deliberation that much is going on during deliberation and many opportunities exist for outcome influence. One of the most likely factors mediating the influence of the initial distribution of verdict preferences and final verdicts is deliberation style (Hastie et al., 1983; Kameda, 1991; Sandys & Dillehay, 1995). Clearly, the evidence-driven style is closer to the normative ideal desired by the courts; in contrast, many juries adopt the verdict-driven style that seems most likely to lead to the rapid delineation of factions and steadily increasing normative pressure. In a related sense, the findings of Kameda and Sugimori (1995) underscore the resilience of minority factions when potential members are allowed to "discover" one another. An evidence-driven style may allow members of the minority faction to identify others in the jury who feel as they do and allow for a more spirited (and perhaps successful) defense of their shared viewpoint. Another possible source of influence lies in the polling mechanics studied by James Davis and his colleagues. When SOE is moderate (and/or verdict preferences are fairly evenly divided), the manner in which polls are conducted could have a substantial impact on the final verdict, especially the first poll. Finally, given the frequent misunderstandings with regard to their instructions, the jury's collectively accepted interpretation could also constitute an important opportunity for deliberation to affect jury outcomes.

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Civil Jury Decision Making

Research on civil juries has been discussed throughout this review, but here we take the opportunity to highlight and summarize the major findings. Various factors distinguish criminal and civil jury trials, not the least of which are the nature of the punishment, the operative standard of proof, and the complexity of the relevant law. The average citizen knows less about how civil juries function compared with criminal juries, and several myths have been said to characterize the public's perception of the civil jury system, including the belief that civil juries are overly sympathetic to plaintiffs, regularly award excessive sums of money (particularly for "pain and suffering" and punitive purposes), and are biased against defendants with "deep pockets" (i.e., large businesses). In contrast to earlier reviews noting the lack of research on civil juries (e.g., J. H. Davis, Bray, & Holt, 1977), our review uncovered many studies of civil juries, most conducted since 1980. This body of research is consistent with a more balanced view of civil jury decision making and suggests that public perceptions have been unduly influenced by a selection bias in the media that focuses attention on atypical high-stakes cases and their outcomes (Vidmar, 1998).

Descriptive profile of the civil jury. To begin with, as in the criminal court system, civil jury trials are relatively rare events when viewed in light of the number of lawsuits initiated. Only about 1% of cases in the state court systems and 2% in the federal system end with a verdict by a civil jury (Landsman, 1999). Roughly 75% of the cases that go to civil juries are tort cases, and about two thirds of those involve automobile accidents or premises liability (Ostrom, Rottman, & Goerdt, 1996). High-stakes tort cases involving contracts and business disputes (14%–18%), medical malpractice (10–11%), product liability (3%–5%), and toxic torts (1%–3%) constitute a much smaller percentage (Chappelear, 1999; Daniels & Martin, 1990, 1995; Eisenberg, Goerdt, et al., 1996; Ostrom et al., 1996; Peterson, 1987).

With regard to plaintiff success rate, Priest and Klein (1984) argued that the cases that go to the jury should be fairly close and not systematically biased in favor of the plaintiff or defendant. Their rationale was that it is in the best interests of both parties to reach a settlement and thus avoid the time, expense, and uncertainty associated with a jury trial. Furthermore, the chances of settlement should increase as the probability of plaintiff success diverges from .50 in that the eventual outcome will likely be viewed as more certain by the parties involved. Thus, civil jury trials are far from a representative sample of the population of lawsuits but instead involve a select set of cases in which one or both parties is unable (or, perhaps, unwilling) to accurately assess the merits of their case. As a result, Priest and Klein predicted that plaintiff success rates in civil jury trials should generally fall around 50%. This provocative hypothesis has spurred a great deal of research on the question of how often plaintiffs receive damage awards in civil jury trials. Table 7 provides summary data on plaintiff win rates in studies reporting the verdicts of 100 or more civil juries. It is clear from a review of these data that plaintiffs are not overly favored in civil jury trials. Almost every major study on the topic has found that plaintiff success rates vary considerably as a function of various factors, particularly case type (Chappelear, 1999; Daniels & Martin, 1990, 1995; Eisenberg, Goerdt, et al., 1996; Ostrom et al., 1996; Peterson,

1987). However, Table 7 shows that overall win rates are consistently near the 50% level predicted by Priest and Klein and also indicates a surprisingly high degree of convergence within four well-known case types. Specifically, plaintiff success rates tend to be highest in automobile negligence and contract-related cases, hovering close to the 60% mark for both case types. On the other hand, plaintiff success rates are somewhat lower in high-stakes cases involving product liability (40%) and medical malpractice (30%).

Table 7 also shows that civil juries only award punitive damages in about 8% of the cases in which plaintiffs receive some award for compensatory damages. Considering that plaintiffs win about 50% of the cases in general, punitive damages are thus awarded in only 3–4% of all civil jury trials. As with compensatory damages, however, the likelihood of punitive damages also varies by case type, with a relatively high percentage occurring in contract-related cases and a relatively low percentage in product liability and medical malpractice cases (Eisenberg, Goerdt, Ostrom, Rottman, & Wells, 1997; Moller, Pace, & Carroll, 1999; Peterson, Sarma, & Shanley, 1987). Overall, although Vidmar (1994a, 1994b) and others have rightly cautioned against making too much of these statistics given the host of confounding variables, the data in Table 7 do not suggest that the civil jury system as a whole is showing excessive signs of trouble.

A second element of the common stereotype is that civil jury damage awards are excessive and unpredictable. As Rand researchers have noted (e.g., Peterson, 1987), the mean damage award has increased significantly in recent decades, but median awards (i.e., the value of the award at the 50th percentile) have grown much more slowly, generally at little more than the inflation rate. The discrepancy between the mean and median awards is a function of a significant increase in the size of awards in a small number of lucrative, high-stakes cases (Peterson, 1987). Data from the state court systems (Ostrom et al., 1996) suggest that the typical (i.e., median) compensatory award was about $52,000 in 1991–1992, due in large part to the relatively high frequency of automobile negligence cases and the relatively modest damages that they involve. It is interesting to note, however, that the median values for the corresponding case types were much higher in the federal court system during the same time period (Eisenberg, Goerdt, et al., 1996). Punitive awards also tend to be rather modest, with the typical award being $38,000 (Ostrom et al., 1996), although they vary considerably by case type and jurisdiction (Daniels & Martin, 1990, 1995; Eisenberg et al., 1997). On the whole, however, the typical civil jury award is not extremely large, especially when attorney fees and court costs are considered, and its amount has not changed drastically over the years after inflation is taken into account.

Determinants of civil jury judgments. Although data on the strength of evidence is difficult to acquire in the field, there is growing indication that jury verdicts are moderately to strongly related to characteristics of the case. Most notably, several field studies have shown the defense's case strength to be substantially related to liability verdicts (Daniels & Andrews, 1989; Farber & White, 1994; Liang, 1997; Sloan et al., 1993; Taragin et al., 1992). Case type also appears to matter, with plaintiffs faring much better in contractual disputes and personal injuries cases stemming from auto accidents than high-profile product liability and medical malpractice cases (Chappelear, 1999; Daniels & Martin, 1990, 1995; Eisenberg, Goedert, et al., 1996; Ostrom et al., 1996; Peterson, 1987).

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Table 7
Plaintiff Success Rates in Studies of Civil Juries

Study/Reference	Sample	Overall award %	Contract award %	Medical malpractice award %	Product liability award %	Auto accident award %
Multiple case types						
Peterson (1987); Peterson et al. (1987)	K = 29,401[a]; CA (80–84) CA (San Francisco) (60–84) IL (Cook) (60–84)	53 (2.6)	64	38	46	58
Daniels & Martin (1990); Daniels & Martin (1986)	K = 25,627; 11 states (47 counties) (81–85)	56 (8.8)		32 (2.9)	39 (8.9)	62[b]
Gross & Syverud (1991)	K = 529; CA (85–86)	51		29	42	58
Ostrom et al. (1992)	K = 650[c]; Various (27 counties) (89)	54[c] (6.2)		29[d]	46[d]	62[c]
Daniels & Martin (1995) Study 1*	K = 20,137; 16 states (100+ counties) (88–90)	54 (8.3)	61	30 (2.5)	39 (8.6)	62
Eisenberg, Goerdt, et al. (1996)	K = 26,917 US (all) (79–93)	50	62	27	30	61
Ostrom et al. (1996); Eisenberg et al. (1997)	K = 11,715; Various (45 counties) (91–92)	51[e] (6.2)	62[e] (12.8)	30[e] (3.1)	40[e] (2.3)	60[e] (2.5)
Chappelear (1999); Merritt & Barry (1999)	K = 1,197; OH (Franklin) (85–97)	61[f] (3.2)[f]	60[f]	31[g] (0)[g]	20[h] (0)[h]	81[f]
Moller et al. (1999)	K = 35,556; CA, NY, IL (Cook), TX (Harris), MO (St. Louis) (85–94)	51 (7.2)	63 (22.5)	32 (1.7)	39 (5.3)	57 (1.5)
Aggregated or single case types						
Zeisel & Callahan (1963)	K = 186; US (IL) (60–61)	46				
Wittman (1985)	K = 582; CA (85–86)					88

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Table 7 (*continued*)

Study/Reference	Sample	Overall award %	Contract award %	Medical malpractice award %	Product liability award %	Auto accident award %
Aggregated or single case types (continued)						
Sloan & Hsieh (1990)	K = 416; FL, MO (73–87)			53		
Viscusi (1991)	K = 421; National (76–77)				37	
Taragin et al. (1992)	K = 988; NJ (77–92)			24		
Vidmar (1995)	K = 109; NC (84–90)			19		
Hans (1998)	K = 125; AZ (97–98)	61				
Vidmar et al. (1998)	K = 2,146; NY (85–97) FL (87–96) CA (91–97)			38		
Moller et al. (1999)	K = 2,027; AL (92–97)	50 (7.8)				

Note. Entries represent percentage of cases in which plaintiffs received some award (parenthetical values represent the percentage of winning cases in which punitive damages were awarded). For sample, K = number of juries in study; US = data gathered from U.S. district courts; state abbreviations indicate data from corresponding state court systems (relevant jurisdictions in parentheses), and years during which data were collected are indicated in final parentheses; National = cases from all federal and state court systems.
[a]Includes data from both state and federal court systems. [b]Calculated from slightly smaller sample in Daniels & Martin (1986). [c]This value represents the number of jury trials in the sample; 15% were bench trials. [d]This value reflects a small number of bench trials. [e]Taken from Table 1 in Eisenberg, Goerdt, Ostrom, and Rottman (1996); success rates not provided in original source. [f]Based on data for 1995–1997. [g]Based on 114 malpractice trials occurring between 1985 and 1996 as reported in Merritt and Barry (1999). [h]Based on 44 product liability trials occurring between 1985 and 1996 as reported in Merritt and Barry (1999).
*Study 2 was not included because its data overlaps heavily with Study 1, Peterson (1987), and Daniels & Martin (1990).

With regard to damages, numerous field studies support the notion that jury damage awards are at least moderately related to the seriousness of the plaintiff's injury (Bovbjerg et al., 1989; Chin & Peterson, 1985; Daniels & Martin, 1995; Sloan et al., 1993; Taragin et al., 1992; Viscusi, 1991). This finding is corroborated by a recent experimental study in which the severity of the plaintiff's injury accounted for a substantial amount of the variance in jury awards (Greene, Johns, & Bowman, 1999). Other field studies have found that punitive damage award amounts are strongly related to the size of the compensatory damages awarded (Daniels & Martin, 1990, 1995; Eisenberg et al., 1997).

In addition to these studies focusing on jury outcomes, empirical research in controlled settings indicates that juries attempt to use systematic processes in determining damage awards. Several studies that correlated the damage awards preferred by individual jurors prior to deliberation with final jury awards have found the mean of the predeliberation distribution to be a reasonably accurate predictor, and the median has proven to be even better (J. H. Davis et al., 1997; Diamond & Casper, 1992; Sonaike, 1978). Indeed, one recent study found that a refined version of the median (calculated without the most extreme outlier) was an even better predictor than the traditional statistic (J. H. Davis et al., 1997). These findings imply that jury decisions strongly reflect the moderate faction within the jury and are not the product of obtuse deliberation processes.

Nonetheless, several reviewers have pointed out the substantial variance in jury awards often remains even after important case characteristics are controlled. A significant, unaccounted for, source of variation is the true extent of loss suffered by the plaintiff. As Vidmar, Gross, and Rose (1998) noted, the NAIC scale used to index the severity of plaintiff injury is rather general and does not take into account the expected duration with which the injury must be lived with, or the individuating characteristics of the plaintiff's livelihood. Experimental research in the laboratory also provides some clues as to the basis for this variation. In particular, characteristics of the plaintiff appear to influence damage awards, with larger and more variable awards when an "outlier" plaintiff is present in court with grievous injuries and when the size of the plaintiff population is large (Horowitz & Bordens, 1988). Consistent with the predictions of sampling theory (Friedman, 1972; Zeisel, 1971), jury size also influences jury awards, with higher levels of variability associated with the outcomes of 6-person juries compared with 12-person juries (J. H. Davis et al., 1997; Saks & Marti, 1997). Trial bifurcation also influences the level and frequency of damage awards, with larger awards generally given by juries that hear evidence related to damages after evidence relevant to causation and responsibility has been presented and the defendant is found liable, compared with juries that hear all of the evidence at once (Horowitz & Bordens, 1990; Landsman et al., 1998; Zeisel & Callahan, 1963). There is also some evidence that the status of the defendant plays a role. Studies involving several methodologies converge on the notion that corporate defendants tend to be assessed larger damages than individual defendants, including archival analyses (Eisenberg et al., 1997; Ostrom et al., 1996), mock jury research (Wasserman & Robinson, 1980), and interviews with ex-jurors (Hans, 1998). Forepersons may also exert a systematic effect on damage awards in that several studies have found predeliberation award preferences of the foreperson to be moderately to strongly related to final compensatory awards (e.g., Boster et al.,

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1991). Finally, the law and evidence associated with civil trials is arguably growing more complex (Heuer & Penrod, 1994b). Although no data bear directly on this issue, the jury's collective interpretation of their instructions may also account for some of the variation observed in civil jury damage awards. In sum, a fair amount of work has examined the factors associated with damage awards; they have found to be associated with the case type, jurisdiction, litigant status (i.e., individual vs. business), severity of plaintiff injury, characteristics of the plaintiff population, and the preferences of the foreperson. Damage awards may also be influenced in an unsystematic fashion by variables such as the size of the jury and the degree to which the jury understands its task.

Improving Jury Performance

Many empirical studies of jury decision making conclude with an attempt to identify implications for practitioners and/or policymakers. Social scientists have long bemoaned their lack of influence on policymakers, and much has been made of the erratic and sometimes erroneous use of empirical data by the U.S. Supreme Court. However, this lack of receptivity appears to be changing (Ellsworth, 1999). Indeed, the ideal cooperative arrangement between social scientists and lawmakers has become a reality in Arizona, where the Supreme Court decided to implement an innovative reform, based in large part on psychological theory, and then allowed social scientists to conduct a rigorous field experiment to test the impact of the reform. Before useful efforts can be undertaken to improve jury performance, however, it is important to identify what is meant by the term. Given the rare opportunity to determine the "correct" verdict in actual jury trials, it is instead more useful to focus on procedural criteria that should be related theoretically to the accuracy of jury verdicts (Hastie et al., 1983). These include but are not necessarily limited to the following: (a) thorough review of the facts in evidence, (b) accurate jury-level comprehension of the judge's instructions, (c) active participation by all jurors, (d) resolution of differences through discussion as opposed to normative pressure, and (e) systematic matching of case facts to the requirements for the various verdict options.

Several recent reviews have addressed the need for jury reform and discussed the various ways that it can and should be accomplished (e.g., Ellsworth & Reifman, 2000; Kelso, 1996; Penrod & Heuer, 1998; Saks, 1997). In particular, Kelso (1996) described the findings of a blue ribbon panel commissioned to study ways to improve the jury system in California. The report comprehensively identifies and discusses most of the mechanisms that have thus far been proposed to improve jury functioning. Some of the measures that appear to have widespread backing of many social scientists include the following: taking steps to increase the diversity of the jury pool lists, adopting a "one day–one trial" jury duty requirement, pre-instructing jurors before the presentation of evidence as well as at the conclusion of the trial, allowing jurors to take notes, allowing jurors to submit questions to be asked of witnesses, rewriting pattern instructions to make them easier to understand, using larger as opposed to smaller juries, requiring unanimity, and using verdict forms with interrogatories or special verdict forms in complex trials. Other changes, such as raising, lowering, or eliminating peremp-

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tory challenges and allowing jurors to discuss the evidence amongst themselves prior to deliberation, are more controversial.

Many of these suggested reforms receive some support from this review of the literature. Given the strong evidence of jury–defendant similarity bias (especially along racial lines) in some circumstances, increasing the diversity of the jury pool would seem to be particularly helpful in ensuring that juries consider the different perspectives and interpretations of the evidence once in the deliberation room. The research suggesting that experienced jurors tend to be somewhat more conviction-prone supports the growing practice of a "one day–one trial" jury duty service requirement. Only a few studies have addressed issues related to juror involvement, and these studies do not present an overwhelming case in favor of their adoption. On the other hand, jurors seem to like being able to take notes and ask questions, and judges and attorneys do not appear to be threatened by these initiatives, so there seems little harm in allowing them. With the convergence of theory and empirical data on the impact of jury size, there is little doubt that 12-person juries are more likely to approach the idea of jury performance positively and thus should be used whenever financial considerations allow. Finally, our review is also consistent with the notion that judges should be willing to take strong measures to combat the biasing effects of pretrial publicity, given that limiting instructions and voir dire appear to be rather ineffective (Lieberman & Arndt, 2000). In particular, when pretrial publicity is expected to be intense (e.g., heinous crimes or well-known defendants), lesser used remedies such as venue change, continuance, and even gag orders should be seriously considered.

Consistent with other reviews (Lieberman & Sales, 1997; Saks, 1997), the data presented here suggest that jurors generally experience difficulty understanding and applying the instructions given to them by the judge. At face value, this finding clearly suggests that pattern instructions should be rewritten to ease the cognitive burden placed on jurors. However, a key assumption underlying the whole thrust of pattern instruction revision is that jury-level comprehension is more or less equal to the average juror's understanding. This is actually an implicit hypothesis amenable to empirical study and should be recognized as such. Several studies have revealed that erroneous statements made during deliberation pertaining to the law or the judge's instructions are often missed by other jurors and rarely corrected (Ellsworth, 1989; Hastie et al., 1983); however, our search was unable to find a single study that directly measured jury-level comprehension in the laboratory or the field. Thus, it is unclear to what extent poor juror comprehension translates into poor jury-level implementation.

Several additional reforms are also indicated by this review of the literature. With regard to juror bias, the research clearly supports the conclusion that, in some cases, demographic characteristics of the jury and defendant (and victim, in criminal trials) interact to affect jury verdicts. Although there is broad evidence of a similarity bias that is most powerful when the jury and defendant are different in a salient way and the victim is similar to the majority of the jury, the evidence is especially compelling with regard to race. In cases in which this situation appears likely to exist, judges might consider allowing each side additional peremptory challenges and conducting more extensive interrogatories. Courts should also endeavor to obtain reliable information regarding the degree to which potential jurors are authoritarian, dogmatic, and/or cynically disposed toward

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defendants. Although difficult to accomplish effectively using voir dire alone, courts could include personality-related items on screening questionnaires and then attorneys or judges could follow up with targeted questions that empirically distinguish persons with high and low scores on the target characteristic.

Finally, the results of numerous studies are consistent with the notion that the quality of deliberation might be improved by having judges provide more guidance to jurors in their posttrial instructions. In particular, judges might forcefully instruct juries to adopt an evidence-driven deliberation style such that no vote is to be taken before the evidence has been fully discussed. Furthermore, judges' instructions might also suggest taking secret ballots to avoid order effects and the substantial normative pressure that can be brought to bear on the minority faction once its members have been identified. Judges should also emphasize that earlier votes are not binding, nor do they commit an individual to a particular perspective. Finally, judges could stress that all jurors should participate throughout deliberation and actively seek the input of other members, even calling on recalcitrant jurors if necessary. On all of these matters, of course, jurors (and juries) may choose to act otherwise. However, salient instructions to the contrary might provide enough normative support within the jury as a whole to withstand the suggestions of "fast-track" jurors who wish to rush things along.

Directions for Future Research

Methodological considerations. Critics have pointed out that empirical research on juries that occurs under controlled conditions should involve realistic media, attention to the mundane details of jury activity, large samples, meaningful participant goals (e.g., replicate actual jury verdicts), and an unconstrained deliberation period (or at least one of sufficient length to lower the frequency of hung juries to a level somewhat near their actual occurrence). Several studies have examined differences in mock jury behavior as a function of whether or not students were used as opposed to community residents or real jurors with extended jury duty (e.g., Bray et al., 1978; Hosch et al., 1980; MacCoun & Kerr, 1988; Simon & Mahan, 1971). In the future, to improve generalizability, it would be preferable to use randomly selected individuals from jury pool lists as opposed to college students, who are not representative of the typical jury pool. Conversely, the primary need for future field research is the measurement of additional variables. Thus far, field studies have either used a small set of focal variables or a large scattered set of variables that were easily obtained but not always of theoretical or practical importance.

Interactions between evidence strength and bias. It is time to move beyond simple demonstrations that procedural or participant characteristics affect jury verdicts. Instead, future research should systematically manipulate or measure these factors in conjunction with varying SOE levels. Building on the conceptual foundation provided by Kerr et al. (1999), one could hypothesize that the impact of many forms of bias would be attenuated at extremely high SOE levels and accentuated at moderate SOE levels. For instance, juries that are homogeneous in terms of some biasing characteristic at the individual level might produce a substantially different verdict distribution compared with unbiased juries when evidence strength is moderate but not when the case clearly favors one side or the

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other. To summarize, bias may only have a tangible impact on verdicts in a relatively narrow range of evidence strength, but it is very important to address these issues because cases with moderately strong evidence typically go to trial, With the mass of data indicating racial bias against minority defendants (particularly African Americans) in criminal cases, future research should ascertain whether simple effects (e.g., defendant race or victim race) are sufficient to explain numerical disparities in jury verdicts and sentences, or if higher order interactions (e.g., a three-way interaction between defendant race, victim race, and racial composition of the jury) are involved. Given that most of the research on racial bias associated with jury verdicts has focused on capital murder cases, it would be useful to learn if the occurrence of bias due to participant race generalizes to lesser felony (or even misdemeanor) cases as well as different types of civil trials.

Standards of proof. Although the terms *beyond a reasonable doubt* and *preponderance of the evidence* are firmly entrenched in the legal system at both the federal and state levels, many jurisdictions allow some flexibility with regard to whether and how this term is explained to juries. Several studies reviewed in this article make clear that variation in the language used to explain these terms can have an impact on jury verdicts, but there are almost as many definitions of the terms in existence as there are studies on the topic. Ideally, future research will focus on a small set of definitions and systematically evaluate the degree to which they affect jury comprehension, the content of deliberation, and ultimately jury verdicts. In particular, two recent reviews in this area have analyzed the psycholinguistic basis of various definitions of *reasonable doubt* and concluded that the Federal Judicial Center's "firmly convinced" standard may be the best of what is available (Solan, 1999; Stoffelmayr & Diamond, 2000). Future research needs to include this instruction and could use it as a benchmark for determining the value of alternatives. In keeping with the findings of Horowitz and Kirkpatrick (1996), it would also be helpful to assess the degree to which various definitions interact with strength of evidence.

Verdict options. The vast majority of research on deliberating juries has focused on trial situations in which the defendant was charged with a single crime and the jury was asked to find that individual "guilty" or "not guilty." The exception to this rule is found in those studies in which the focal charge was murder; many studies included the lesser charges of second-degree murder and/or manslaughter. It is easy to understand why researchers have generally ignored lesser included charges—they complicate the jury's task and decrease expected cell frequencies (and thus statistical power). However, given the frequency of their usage in real courts, it is important to learn how juries respond to verdict options, especially in conjunction with variation in evidence strength. It seems likely that lesser included charges will represent more attractive options when the evidence is weak but the defendant is clearly implicated in wrongdoing. This is akin to suggesting that evidence strength interacts with verdict options to influence verdicts, and there is some support for this in the literature (i.e., Savitsky & Lindblom, 1986). It also seems plausible that verdict options would have more impact on jury verdicts when charges are more serious and/or penalties are more severe: When there is little distinction apparent in the options, juries may simply choose the most severe option because it makes little difference. The impact of

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verdict options will almost certainly be affected by characteristics of the specific verdict sets (or "packages") available. Thus, there are several potentially fruitful lines of research here.

Cognitive aspects of deliberation. Unfortunately, although many studies have recorded the content of deliberations, most studies have used elaborate, study-specific coding schemes that focus on quantitative summaries yet fail to capture rare and potentially decisive phenomena that may be the important factors determining reversals. Given the difficulties associated with recording, coding, and analyzing data from the deliberation process, it was surprising to find that a good portion of the empirical mock jury literature did attempt to measure the content of jury discussion. On the whole, however, these data have not yielded much of significance. Many coding schemes used to parse deliberation content have used broad categories (e.g., "case facts," "judge's instructions," "sympathy for defendant") and focused on generating quantitative counts as opposed to tracking rare but potentially critical events (e.g., emergent understanding of a point of law). In particular, it may prove valuable to identify key events or exchanges related to mass defections from majority coalitions. Factors of interest include the use of individual and collective schemas, the establishment of a shared framework or approach early in deliberation, the number and coherence of alternative "stories," and the characteristics of faction leaders.

The emergence of the story model also highlights a potentially fruitful line of research that would concentrate on cognitive phenomena at both the individual and collective levels during deliberation. More precisely, although research suggests that individual jurors attempt to create stories by using existing schemas to arrange and link case facts in a meaningful way, it is not clear what role these stories play at the jury level. For instance, do jurors offer their stories and then juries consider the merits of each story as a whole, or do stories simply allow jurors to arrive at personal judgments that serve as a jumping-off point for some other consensus-building process? All things considered, studies that adopt a cognitive focus may help discover why majority factions do not prevail in 10% of jury trials.

Trial strategies. With regard to improving one's case in front of the jury, there are many issues pertaining to trial strategy that are amenable to empirical examination. Mock jury studies could be used to test the effects of taking various approaches with witnesses, the order in which witnesses testify, and the presentation of scientific evidence. A particular issue worthy of study is the impact of DNA evidence. Although DNA testing has been conducted regularly for almost a decade and was featured prominently in both O. J. Simpson trials, no study has yet examined the influence of DNA evidence on jury verdicts. With its renowned accuracy, DNA testing may soon constitute (if it does not already) the most powerful kind of evidence in trials in which identification of the culprit is an issue. On the other hand, DNA test results are complex and cannot easily be conveyed to jurors, and the rigorous procedures for collecting and testing DNA are subject to challenge. Furthermore, even if DNA testing is conducted appropriately and the results conveyed in a comprehensible fashion, there is still the possibility that jurors will reject or marginalize DNA evidence because it threatens to usurp their role. However, little is known about how juries comprehend or use DNA evidence or react to its presence.

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Reforms that promote juror comprehension. Existing research on juror and jury comprehension of legal instruction highlights the need for prescriptive research concerning ways to improve jury performance. In particular, future research should examine the effects of the following: (a) using court-appointed experts, (b) pre-instructing jurors, (c) providing jurors with written copies of judicial instructions, (d) revising/simplifying judicial instructions, (e) allowing jurors to take notes and/or ask questions during the trial, (f) having judges and/or attorneys provide summary comments on the evidence, and (g) using verdict forms that include interrogatories. It is clear from this review, as well as considerable research conducted with mock jurors, that jurors are often uncertain or confused about their task, a condition only slightly lessened by discussing the judge's instructions with other jurors during deliberation. Most of these areas have received some initial attention, but the results so far have been modestly encouraging, certainly not overwhelming. Much more work is needed.

Conclusion

Much has been learned about jury decision making in the past 45 years. We now have a broad understanding of how juries operate and the factors that determine deliberation outcomes. In the last decade or so, the focus of jury research has begun to shift from descriptive to prescriptive in response to issues and reforms related to improving the jury system, and this shift appears likely to continue. Empirical research on deliberating groups will remain a central part of this learning process.

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Received January 9, 2001
Revision received August 14, 2001
Accepted August 16, 2001 ■

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