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Nicole L. Waters

*National Center for State Courts*, [nwaters@ncsc.org](mailto:nwaters@ncsc.org)

Valerie P. Hans

*Cornell Law School*, [valerie.hans@cornell.edu](mailto:valerie.hans@cornell.edu)

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# A Jury of One: Opinion Formation, Conformity, and Dissent on Juries

*Nicole L. Waters and Valerie P. Hans\**

Approximately 6 percent of criminal juries hang. But, how many dissenters carry the jury, hang the jury, or conform to the majority's wishes? This article examines the formation of individual verdict preferences, the impact of deliberation, and the role of the dissenter using data from nearly 3,500 jurors who decided felony cases. Jurors were asked: "If it were entirely up to you as a one-person jury, what would your verdict have been in this case?" Over one-third of jurors, privately, would have voted against their jury's decision. Analyses identify the characteristics of jurors who dissent, and distinguish dissenters who hang the jury from dissenters who acquiesce. Deliberation procedures, juror role expectations, their evidentiary views, and their sense of fairness affected the likelihood of dissent. Contrary to previous research, deliberations play a vital role in generating juror consensus and shed new light on the debate over the requirement that juries be unanimous in their verdict.

## I. INTRODUCTION

How do jurors form opinions about the evidence in a case? When do they make up their minds? What goes on behind the closed doors of jury deliberation? Questions about the formation of jurors' individual and collective decisions have always stimulated a great deal of interest and discussion. They

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\*Address correspondence to Nicole L. Waters, Senior Court Research Associate, National Center for State Courts, 300 Newport Ave., Williamsburg, VA 23185; e-mail: nwaters@ncsc.org. Hans is Professor of Law at Cornell Law School.

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are also the stuff of solemn pronouncements: “Jurors form their opinions early on.” “Deliberations are unimportant.” “Dissenters conform to the majority so they can get home for dinner.” Some of these claims depend on the keen insights of lawyers and other court observers, honed through years of experience with jury trials. For example, the late and highly acclaimed litigator Alfred Julien insisted that the opening statement is perhaps the most significant phase of the trial, since “[j]urymen have been prone to say that once the opening statements were made there was nothing left to the case.”<sup>1</sup> Jury consultants Don Vinson and David Davis drew on their consulting experience to conclude that “the vast majority of jurors arrive at a verdict predisposition during or immediately after opening statements. Further, these initial decisions are remarkably consistent with the final verdicts that jurors render at the conclusion of the trial.”<sup>2</sup>

This article aims to shed an empirical light on the process of opinion formation and change in juries using questionnaire data and case information collected as part of a National Center for State Courts (NCSC) project on hung juries.<sup>3</sup> This article employs jurors’ responses from the NCSC study surveying approximately 3,500 jurors in four large urban courts. The NCSC project asked jurors, once their trial was concluded, to report on their individual opinions, verdict preferences, and the dynamics of deliberations.

Earlier analyses of these data identified the prime factors that led to jurors’ first votes in these criminal trials.<sup>4</sup> One of the central findings was that juror votes and jury verdicts are strongly related to the strength of the evidence presented at the trial, whether the evidence is rated by the jurors or the judge.<sup>5</sup> The stronger the evidence against the criminal defendant, the

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<sup>1</sup>Alfred S. Julien, *Opening Statements* § 1.01, at 2 (Supp. 1996).

<sup>2</sup>Donald E. Vinson & David S. Davis, *Jury Persuasion: Psychological Strategies & Trial Techniques* 199 (3d ed. 1996).

<sup>3</sup>Paula Hannaford-Agor, Valerie P. Hans, Nicole L. Mott & G. Thomas Munsterman, *Are Hung Juries a Problem?* (2002), a report published by the National Center for State Courts. Available at [http://www.ncsconline.org/WC/Publications/Res\\_Juries\\_HungJuriesPub.pdf](http://www.ncsconline.org/WC/Publications/Res_Juries_HungJuriesPub.pdf).

<sup>4</sup>*Id.* For the first vote analysis, see Stephen P. Garvey, Paula Hannaford-Agor, Valerie P. Hans, Nicole L. Mott, G. Thomas Munsterman & Martin T. Wells, *Juror First Votes in Criminal Trials*, 2 *J. Empirical Legal Stud.* 371 (2004).

<sup>5</sup>*Id.*; see also Theodore Eisenberg, Paula L. Hannaford-Agor, Valerie P. Hans, Nicole L. Waters, G. Thomas Munsterman, Stewart J. Schwab & Martin T. Wells, *Judge-Jury Agreement in Crimi-*

more likely jurors are to vote guilty on the first ballot. The juror's view of the fairness of the law, the perceived harshness of the consequences of a conviction in the case, and a perceived lack of credibility in police testimony are all related to his or her willingness to vote not guilty.<sup>6</sup> The importance of a juror's race varies with the location of trial and the type of charges filed against the defendant.<sup>7</sup>

This article builds on these earlier analyses to examine the development of opinion formation during trial, examining when jurors begin to lean toward one side, how often and at what trial stages they change their minds, the impact of jury deliberation on juror verdict preferences, and the distinctive situation of dissenters from the majority.

The role of jury deliberation in opinion change is of special interest. Is deliberation pointless, as some have claimed, or is there evidence that substantial movement occurs during jury deliberation? The collected work on jury decision making confirms that the first ballot vote is strongly related to the jury's final verdict.<sup>8</sup> Kalven and Zeisel's classic book, *The American Jury*, concluded that the strong relationship between the majority's verdict preferences at the start of the deliberation and the jury's final verdict meant that deliberation was not a significant element: "[I]t brings out the picture, but the outcome is pre-determined."<sup>9</sup>

However, other research identifies important benefits of jury deliberation. In fact, some scholars point to the jury deliberation as the key element of the jury system that promotes its soundness as a factfinder.<sup>10</sup> The opportunity

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nal Cases: A Partial Replication of Kalven and Zeisel's *The American Jury*, 2 J. Empirical Legal Stud. 171 (2005).

<sup>6</sup>Fairness of the law is examined in Paula L. Hannaford-Agor & Valerie P. Hans, Nullification at Work: A Glimpse from the National Center for State Courts' Study of Hung Juries, 78 Chi-K. L. Rev. 1249 (2003).

<sup>7</sup>See Garvey et al., *supra* note 4, at 380-95.

<sup>8</sup>Dennis J. Devine et al., Jury Decision Making: 45 Years of Empirical Research on Deliberating Groups, 7 Psychol. Pub. Pol'y & L. 622 (2001).

<sup>9</sup>Harry Kalven, Jr. & Hans Zeisel, *The American Jury* 489 (1966).

<sup>10</sup>Dennis Devine et al., Deliberation Quality: A Preliminary Examination in Criminal Juries, 4 J. Empirical Legal Stud. 273 (2007); Phoebe Ellsworth, Are Twelve Heads Better than One? 52 Law & Contemp. Probs. 205 (1989); Reid Hastie, Steven D. Penrod & Nancy Pennington, *Inside the Jury* (1983).

to combine knowledge, compare and debate different understandings of the evidence, and correct one another's errors all enhance the jury's ability to reach a decision consistent with the evidence. Finally, in a minority of trials, the jury ultimately acquits despite the fact that the initial majority favored conviction.<sup>11</sup> Indeed, mock jury research suggests that there is an asymmetrical bias, whereby minorities arguing for acquittal have an easier time convincing their colleagues to find the defendant not guilty compared to conviction-prone minorities who attempt to persuade their acquittal-prone fellow jurors to find the defendant guilty.<sup>12</sup> However, one recent study with actual juries did not find the expected asymmetrical relationship.<sup>13</sup>

The position of the dissenter, glorified in the 1957 jury movie *Twelve Angry Men* as played by Henry Fonda, is arguably one of the most intriguing aspects of jury deliberation.<sup>14</sup> But, how many dissenters carry the jury, how many hang the jury, and how many simply conform to the majority's wishes? The NCSC study estimated that approximately 6 percent of criminal juries in state courts and between 2 percent and 3 percent of criminal juries in federal courts nationwide are unable to reach a final verdict.<sup>15</sup> Because the NCSC study asked a variety of questions about individual jurors' opinions, and recorded the jury's verdict in each case, it is possible to identify dissenters and, furthermore, to differentiate between dissenters who hold out or who conform. The study permits us to distinguish between the juror who dissents from the majority to hang the jury, and the dissenter who acquiesces, conforming to the majority and allowing a group decision against the dissenter's individual wishes. This article analyzes what personal and case factors lead a dissenter to conform or to hold out against the majority.

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<sup>11</sup>Valerie P. Hans, Paula L. Hannaford-Agor, Nicole L. Mott & G. Thomas Munsterman, *The Hung Jury: The American Jury's Insights and Contemporary Understanding*, 39 *Crim. L. Bull.* 33 (2003).

<sup>12</sup>Robert J. MacCoun & Norbert L. Kerr, *Asymmetric Influence in Mock Jury Deliberation: Jurors' Bias for Leniency*, 54 *J. Personality & Soc. Psychol.* 21 (1988).

<sup>13</sup>Dennis J. Devine et al., *Explaining Jury Verdicts: Is Leniency Bias for Real?* 34 *J. Applied Soc. Psychol.* 2064 (2004).

<sup>14</sup>A special symposium issue of the *Chicago-Kent Law Review* was devoted to scholarly consideration of the 1957 movie upon its 50th anniversary; see Nancy S. Marder, *Introduction to the 50th Anniversary of 12 Angry Men*, 82 *Chi-Kent L. Rev.* 557 (2007).

<sup>15</sup>Paula L. Hannaford-Agor, Valerie P. Hans & G. Thomas Munsterman, *How Much Justice Hangs in the Balance? A New Look at Hung Jury Rates*, 83 *Judicature* 59 (1999).

Inspired by social decision scheme and social transition scheme theories, researchers have employed group decision-making experiments, mock jury studies, and computer simulations to explore opinion shifts during collective discussions.<sup>16</sup> Some mock jury research suggests that jurors revise and update their preferences throughout the trial and deliberations.<sup>17</sup> However, the process of opinion formation and change with real jurors over the duration of their trials has not been extensively studied. Hannaford and her colleagues examined opinion formation in Arizona civil juries.<sup>18</sup> That project, using questionnaires from 1,385 jurors in 172 civil trials, examined jurors' self-reports about when they began leaning toward one side and when they made up their minds about who should prevail in the civil trial. As in other social-psychological research on two-sided communication, the civil jurors appeared to wait until they heard arguments from both sides before making up their minds. The evidentiary portions of the trial—plaintiff evidence and defense evidence—and jury deliberation were the most common trial segments during which jurors reported they began leaning toward one side, and at a similar rate (between 19–24 percent for each). The jury deliberation was far and away the most significant trial segment in which jurors reportedly made up their minds; 46 percent of the civil jurors identified it.

In Hannaford and colleagues' civil jury project, jurors in complex cases were more likely to delay making up their minds until later in the trial. In addition, jurors in weaker cases took longer to lean toward and decide for a party. The only demographic characteristic to affect opinion formation in civil juries was the juror's educational level. More highly educated jurors began leaning toward a verdict preference earlier than less educated jurors. However, more educated jurors also changed their minds more often, and reportedly came to a decision at later stages in the trial compared to less educated jurors.

Whether and how these case and individual factors also influence real criminal jury opinion development has not yet been studied and is worth

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<sup>16</sup>Devine et al., *supra* note 8, at 625, 690–92.

<sup>17</sup>*Id.*; H.P. Weld & E.R. Danzig, *A Study of the Way in Which a Verdict is Reached by a Jury*, 1940 *Am. J. Psychol.* 518 (1940).

<sup>18</sup>Paula L. Hannaford, Valerie P. Hans, Nicole L. Mott & G. Thomas Munsterman, *The Timing of Opinion Formation by Jurors in Civil Cases: An Empirical Examination*, 67 *Tenn. L. Rev.* 627 (2000).

exploring. The burden of proof, the evidence, the legal issues, and typical jury size all differ in civil and criminal trials; whether the jury must come to a unanimous decision or may decide by majority vote may differ as well. Thus, the current study evaluates the formation of individual verdict preferences, the impact of deliberation, and the role of the dissenter, employing the NCSC's comprehensive research project on felony juries.

## II. METHODOLOGY

Four sites participated in the NCSC project, originally designed to examine differences between criminal juries that reached a verdict or were hung juries: Los Angeles County Superior Court (CA); Maricopa County Superior Court (Phoenix, AZ); the Bronx County Supreme Court (NY); and the Superior Court of the District of Columbia. The timing of data collection spanned 2000–2001 and varied for each site. Court staff distributed packets of surveys in court and returned the completed surveys to NCSC staff in noncapital felony jury cases across the four sites. Each packet contained four sets of instructions and questionnaires (a case data form, a questionnaire for the judge, both attorneys, and all the jurors). Trial participants returned completed questionnaires in sealed envelopes to protect their confidentiality. Response rates were excellent—92 percent of the jurors responded, 89 percent of the case data forms were returned, 91 percent of the judges responded, and 88 percent of the time at least one attorney per case responded. In all, 3,497 jurors completed questionnaires in 382 cases. There were sufficient data on 367 trials (86 in Los Angeles County; 96 in Maricopa County; 91 in Bronx County; and 94 in the District of Columbia) for their inclusion in this project. Thus, data analyses reported in this article are based on 367 trials. A more detailed description of the methodology may be found in the full report.<sup>19</sup>

The analyses in this article rely predominantly on the posttrial juror questionnaire, which included questions about jurors' perceptions of attorney skill, evidence, the dynamics of deliberations, juror influence, conflict, reaction to the group's verdict, opinion about applicable law, assessment of criminal justice in community, and demographic information. Table 1 provides summary statistics for the questionnaire items employed in the article's

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<sup>19</sup>Hannaford-Agor et al., *supra* note 3.

Table 1: Summary Statistics for Jurors

<i>Question Asked of Jurors (scale)</i>	<i>Mean</i>	<i>SD</i>
<b>Deliberations/Voting Behavior</b>		
When did you start leaning towards one side? (1 = during prosecutor’s opening statement, 8 = during deliberations)	4.5	2.2
When was jury’s first vote? (1 = right at the beginning of deliberations, 6 = only at the end of deliberations)	3.0	1.5
How certain were you on the first vote? (1 = not at all certain, 7 = very certain)	5.7	1.7
Were you given enough time to express your views? (1 = definitely no, 7 = definitely yes)	6.4	1.2
How influential were you in the deliberations? (1 = not at all influential, 7 = very influential)	4.6	1.5
Difficult to judge another person due to religious beliefs? (1 = strongly disagree, 7 = strongly agree)	2.1	1.8
<b>Evidence</b>		
How easy/difficult for jury to understand evidence? (1 = very difficult, 7 = very easy)	4.9	1.7
How close was the case? (1 = evidence strongly favored one side, 4 = evidence did not favor either side)	2.7	1.1
How easy/difficult to understand the expert testimony? (1 = very difficult, 7 = very easy)	5.4	1.6
How believable was police testimony? (1 not at all believable, 7 = very believable)	5.1	1.7
<b>Attitudes</b>		
How worried about consequences of conviction to defendant were you? (1 = not at all, 7 = a great deal)	3.4	2.1
How fair was the legally correct outcome? (1 = very unfair, 7 = very fair)	5.4	1.6
How fair was the law in this case? (1 = not at all fair, 7 = very fair)	5.7	1.5
How much do you trust police in your community? (1 = none, 7 = great deal)	5.1	1.5

data analyses; Table 2 (Column 1) displays the juror sample’s overall demographic makeup.

Most relevant to this article were questions about the jurors’ opinion formation, their initial and final verdict preferences, and their voting behavior. Jurors were asked: “Thinking back over the trial and jury deliberations, when would you say that you started learning toward one side or the other in this case?” They also were asked: “Did you find yourself changing your mind about the direction you were leaning during any of the following stages of the trial?” Provided a list of trial stages, jurors checked



all the stages that applied. They answered the question: "Before you began deliberating with your fellow jurors at the end of the trial (after all of the evidence and the judge's instructions had been presented), which side did you favor?"<sup>20</sup> Jurors were asked to recall their own first ballot vote on the most serious charge, their own final vote on that charge, and the vote split on the group's first and final votes for the most serious charge (e.g., 8 vs. 4 for conviction).

Jurors were also asked: "If it were entirely up to you as a one-person jury, what would your verdict have been in this case?" We identify their response to this item as their "one-person jury verdict." The question invited jurors to report their own private verdict preference as distinct from either their own votes or the jury's verdict at the end of deliberation. One potential interpretation issue, which we return to in the discussion section of this article, is that jurors may have interpreted the one-person jury question as their verdict preference prior to the deliberations, without the influence of other jurors or, alternatively, without the need to follow the judge's instructions on the law. Nonetheless, it provides a unique window into juror preferences and is employed in several key analyses.

The jury questionnaire responses were supplemented by selected data from other questionnaires, particularly the case data form, which provided the type of charge and the final jury decision, and the judicial questionnaire, which provided judges' ratings of evidence strength and complexity.

To obtain summary measures for juries on particular variables, individual jurors' responses from the same case were combined. To arrive at vote counts, each case was evaluated individually. The coding of the final vote was based on the context of all responses within a jury, since at times, jurors within a jury disagreed about the exact numbers supporting each verdict. Because some trials involved multiple counts, we also developed a measure that allowed us to compare trials with single and multiple charges. The variable, general verdict measure, takes into account multiple charges and summarizes the predominant outcome of the jury trial. For example, in a multiple count case, if the clear majority of the counts resulted in convictions, the general verdict measure would be recorded as "guilty."

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<sup>20</sup>The NCSC hung jury project's advisory committee expressed concern about requesting information that could lead to challenge of jury verdicts, and strongly recommended that the questionnaire include no specific question about when criminal trial jurors made up their minds. See Valerie P. Hans, *Jury Research Ethics and the Integrity of Jury Deliberations*, in *Jury Ethics: Juror Conduct and Jury Dynamics* 247 (J. Kleinig & James P. Levine eds., 2006).

### III. RESULTS

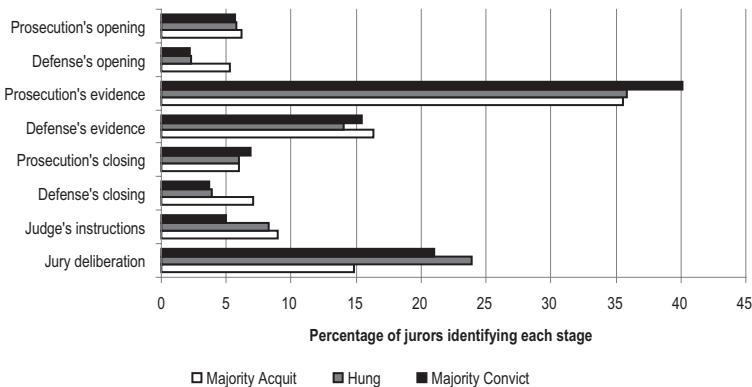
#### *A. The Timing of Opinion Formation in Felony Trials*

The first analysis examines juror reports of when during the trial they began to lean toward one side and change their mind. Figure 1 displays the self-reported timing of juror opinion development, showing the overlap yet slight variation among trials that resulted in convictions, acquittals, or hung juries. Reportedly, only a small number of jurors (9 percent) began to lean toward one side or another during the opening statements. Most jurors (53 percent) reported that they began forming an opinion during the evidentiary period, particularly during the prosecution’s case. Another 20 percent said they only began leaning toward one side once they deliberated with other jurors.

Comparing cases in which the majority of the jury convicted, acquitted, or hung on any charge, jurors’ reports of when they began leaning toward one side revealed some differences. When a majority of jurors voted to acquit the defendant, relatively few jurors (15 percent) reported themselves to be undecided at the time of deliberation. On the other hand, 21 percent of jurors on juries with a majority to convict and 24 percent of jurors on juries that hung on a charge said they waited until final deliberations to lean toward one side in the case.

On the questionnaire, jurors indicated whether they changed their minds about their preliminary verdict preferences during the case and, if

*Figure 1: When did you start leaning towards a side?*



so, when this change occurred. Remarkably, most jurors (62 percent) changed their mind at least once. The two time periods with the largest percentage of jurors changing their minds occurred during understandable stages. Almost one-fifth (18 percent) of the jurors reported they changed their minds during the state's testimony, and almost one-quarter (24 percent) of the jurors changed their minds during deliberations with other jurors.

Despite the reports of substantial individual juror opinion change, in most cases, the jury's first vote strongly resembled the jury's final vote. As previously reported, 89 percent of the juries in which a substantial majority (e.g., at least 8 of 12) favored conviction on the first vote ultimately convicted the defendant on the final vote.<sup>21</sup> Likewise, 87 percent of juries in which a substantial majority favored acquittal found the defendant not guilty on the final vote. On the other hand, 80 percent of juries with first ballot votes that were closely split (e.g., 6-6 or 5-7) shifted toward either an acquittal or conviction by the final vote in deliberations. If jurors were closely split or the jury votes revealed only a slight majority, the case was more likely to hang than for juries with a substantial majority on the first vote. The first jury vote to final jury verdict analysis does not show an asymmetrical preference toward acquittal that is said to characterize jury verdicts.<sup>22</sup>

### *B. Analysis of the Dissenters*

Jurors holding dissenting minority opinions are of great interest in any examination of the deliberation process. They have a range of options: they could embark on an uphill battle to convince the majority faction to adopt their viewpoints; they could acquiesce to the majority faction; or they could hold out and hang the jury. If an individual juror would have found the defendant not guilty, but the jury voted to convict (or vice versa), the juror is identified, for the purposes of this analysis, as a dissenter.

Because the questionnaire included multiple measures of juror and jury verdict preferences, there were multiple ways of characterizing the frequency of dissenting jurors. Recall that jurors provided their initial

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<sup>21</sup>Hannaford et al., *supra* note 3; Hans et al., *The Hung Jury*, *supra* note 11.

<sup>22</sup>MacCoun & Kerr, *supra* note 12.

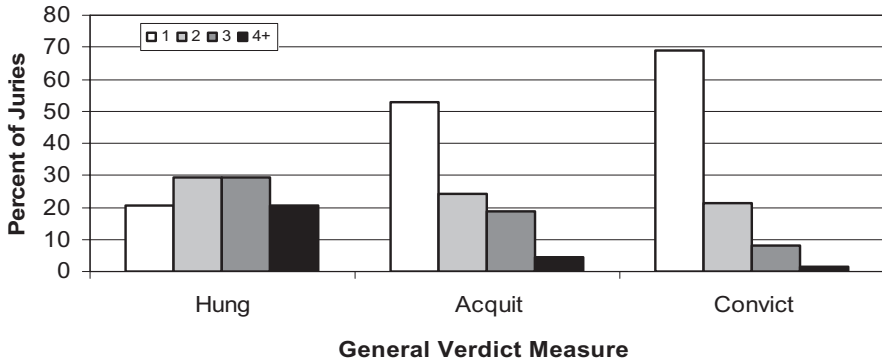
individual verdict preferences and their final verdict preferences, as well as their one-person jury verdicts, which was the verdict they would have reached had they been deciding the case alone. Recall also that information from the case data form allowed us to determine the jury's final verdict, the jury's final verdict on the first count (usually the most serious charge), and the general verdict measure, the predominant verdict outcome reached by the jury in both single- and multiple-count cases.

Comparing the one-person jury verdicts to the general verdict measure to obtain a count of dissenters is a conservative approach to estimating their frequency. It should identify the fewest dissenters because it combines all counts, including secondary and lesser-included offenses, to arrive at a general finding of conviction, acquittal, or hung. Nonetheless, even using this conservative approach, a significant proportion of juries (38 percent) include dissenters, that is, jurors whose one-person jury verdict was at odds with the general verdict reached by the jury as a whole. This conservative measure of jury dissent is employed in subsequent analyses.

Two other ways of measuring individual dissent are worth noting, however. Over half the juries (54 percent) included at least one juror whose one-person jury verdict diverged from the final vote of the jury. In addition, we compared the one-person jury verdicts to the jury's verdict on the first count. Although the first count is generally the most serious charge facing the defendant and many previous vote questions referred to the most serious charge, the one-person jury question did not specify "on the most serious charge." Still, 46 percent of the juries included at least one juror whose one-person jury verdict differed from the jury's decision on the first count. Thus, depending on what approach is taken to measuring the jury's verdict, from 38 percent to 54 percent of juries included at least one juror who reported an individual verdict preference contrary to the jury's verdict. The substantial percentage of juries with one-person jury dissenters under any of these measures raises questions about the meaning and significance of ostensible unanimity, an issue to which we return in the discussion section of the article.

When there was a disparity between jurors' one-person verdict and the jury's verdict, most often the minority faction consisted of one or two jurors. Figure 2 illustrates that when the jury acquitted or convicted, typically the most common dissenting faction size was one. However, when the case resulted in a hung jury, the minority faction was often larger. Half the time the jury hung with three or more dissenters, indicating that a larger minority was less likely to acquiesce to the majority.

Figure 2: Size of dissenting faction and jurors' one-person verdict.



C. Differences Between the Majority and the Dissenters

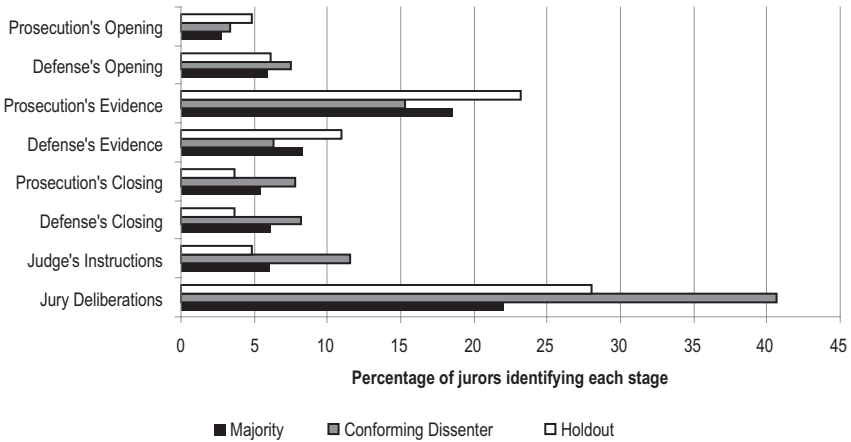
1. Differences in Verdict Preferences, Timing, and Certainty

The remaining data analyses take up the phenomenon of these surprisingly numerous dissenting jurors. To allow comparisons across these analyses, we use the responses to the one-person jury verdict question (“If it were entirely up to you as a one-person jury, what would your verdict have been in this case?”) as the measure of an individual juror’s verdict, and we employ the general verdict measure (the predominant outcome in both single- and multiple-count cases) as the measure of the jury’s verdict. Analyses compare three groups: the majority jurors, whose one-person jury verdict was the same as the jury’s verdict as measured by the general verdict measure (majority), the dissenting jurors whose one-person jury verdict differed from the group’s general verdict measure, but who eventually acquiesced to the majority (conforming dissenters), and the dissenting jurors who hung the jury (holdouts).

The following sections explore variables that differentiate between the juror groups. This section explores verdict preferences, timing, and juror ratings of vote certainty. Juror perceptions and attitudes are also considered, including jurors’ perceptions of trial evidence, trial complexity, skill of the prosecution and defense attorneys, and whether all relevant evidence was presented.

The next two sections evaluate differences in how jurors perceive the evidence, followed by juror deliberation processes and group interactions. Voting behaviors include whether the jury verdict favored acquittal or conviction, trial stages, vote timing, and the use of secret ballots. Variables such

Figure 3: Percent of jurors who changed their minds during . . .



as the views of the deliberation process and whether the law and legally correct outcomes were fair are compared across groups. Juror characteristics, including gender, race, education, and age, are also explored as potential explanatory factors. Tables 1 and 2 provide summary statistics for most of these explanatory variables. As described below, Tables 3, 4, and 5 display the responses of each of the three comparison groups (the majority, the conforming dissenters, and the holdouts) on important explanatory variables.

The willingness to hold out was linked to whether the one-person jury verdict favored conviction or acquittal, and shows a clearly asymmetrical pattern. Of the 167 jurors who said their one-person jury verdict was an acquittal but the jury's majority favored a conviction, 59 jurors, or 35 percent, ultimately hung the jury. In contrast, of the 184 jurors who said their one-person jury verdict was a conviction but the jury's majority favored an acquittal, just 23, or 12.5 percent, hung the jury.

Aside from conviction versus acquittal verdict preferences, several other differences emerged across these three groups of jurors. Reports of the stages of the trial during which they changed their minds differed somewhat, as shown in Figure 3. Holdout dissenters were especially likely to change their opinions during jury deliberation and during the presentation of evidence by both sides. Holdouts changed their mind at different trial stages than conforming dissenters. Over 40 percent of the conforming dissenters as compared to approximately 25 percent of all other jurors changed their

mind during deliberations. Undoubtedly, jury deliberation is a fertile site for opinion change.

Once jurors enter the jury deliberation room, their chosen voting protocol distinguishes the three groups of jurors. Comparing holdouts, conforming dissenters, and majority jurors, a univariate analysis reveals that both dissenter groups were more likely to be on juries that voted earlier in the deliberation process ( $F(2, 3305) = 8.85, p < 0.05$ ). The vote-timing scale ranged from 1, which represented a vote taken right at the beginning of deliberations, to 6, which represented a vote taken only at the very end of deliberations. Dissenter jurors, both holdouts (mean = 2.5) and conforming dissenters (mean = 2.8), were more likely to report that their juries took an earlier vote, compared to the vote timing reported by majority jurors (mean = 3.1). A similar effect is evident for the jury's use of secret ballots. Majority jurors were least likely to report that their juries used a secret ballot (37 percent), compared to conforming dissenters (47 percent) and holdouts (53 percent) ( $\chi^2(2) = 12.30, p < 0.05$ ). The timing of the jury's first vote was significantly related to whether the vote was secret and by juror's perceptions of trial complexity (1 = not very complex; 7 = very complex, beta = 0.033,  $p = 0.023$ ; secret vote (1 = yes, 0 = no), beta = -0.273,  $p = 0.000$ ). In effect, juries who vote by secret ballots also tend to vote earlier in deliberations. Jurors in more complex cases vote later. As we show below, employing these variables in a regression model provides confirmatory evidence that the effects of voting practices on dissent are robust, even when controlling for the influence of other explanatory variables.

Another distinguishing characteristic among majority jurors and dissenters is their professed level of certainty in their votes. Conforming dissenters were least certain of their votes ( $F(2, 3181) = 8.60, p < 0.05$ , majority  $M = 5.7$ , conforming dissenter  $M = 5.3$ , holdout  $M = 5.6$ ). Individuals whose verdict preference aligned with the majority were most certain on their first vote (69 percent) compared to those in the dissenting groups (56 percent). Comparing verdict preference shifts from first to final vote similarly reflects this indecisiveness. Only 17 percent of the conforming dissenters remained steady between their first and final votes. In contrast, 45 percent of those in the majority and 43 percent of holdouts remained steady throughout the votes, demonstrating that conforming dissenters have difficulty deciding on a verdict ( $\chi^2(2) = 14.80, p < 0.05$ ).

Table 2 shows the relationship between demographic factors and conformity or dissent. Although in this sample there are no statistically significant differences as a function of race, education, and gender, we present

Table 2: Demographic Characteristics (%)

<i>Characteristic</i>	<i>All</i>	<i>Majority</i>	<i>Dissent</i>	
			<i>Conform</i>	<i>Holdout</i>
<b><i>Age</i></b>				
18–25	9.6	9.3	11.8	10.0
26–35	25.4	25.2	26.0	31.3
36–45	24.9	24.9	25.2	23.8
46–55	23.1	23.1	21.0	30.0
56 and over	17.1	17.5	16.0	5.1
<b><i>Gender</i></b>				
% Male	43.0	43.3	40.2	42.7
<b><i>Race/Ethnicity</i></b>				
Black/African American	26.4	26.0	27.7	35.8
White/Caucasian	44.0	44.3	44.3	33.3
Hispanic	21.7	21.7	22.5	23.4
Other	7.7	8.0	5.6	7.4
<b><i>Highest Education Level</i></b>				
Less than four years of high school	3.3	3.3	3.8	0.0
High school graduate	16.3	16.5	15.1	13.4
Some college	30.7	31.1	26.4	29.3
College graduate/postgraduate	49.7	49.0	54.7	57.3
Number of jurors	3,497	3,146	269	82

these variables because it is common belief that demographic characteristics are associated with dissent. The age distribution was not significantly associated with dissention ( $\chi^2 (10) = 13.67, p = 0.188$ ).

2. Differences in Perceptions of Evidence

Dissenting jurors also differ from the majority on their perceptions of the evidence (see Table 3). Dissenting jurors were skeptical that all the relevant evidence was presented in the case. According to dissenting jurors, the prosecution was less skillful and the prosecution’s case was judged to be weaker. Dissenters also reported less satisfaction with the manner in which the trial was conducted. Holdouts, but not conforming dissenters, thought the police were less believable. By and large, it appears that the dissenting jurors were more skeptical of the strength of the prosecution’s case and whether all the evidence was presented. Interestingly, the only dimension of evidence for which there were no statistical differences among the groups pertained to the expert testimony. Jurors in all groups reported it was relatively easy to understand the expert’s testimony.



Table 3: Evidence Issues

<i>Question Asked of Jurors</i>		<i>Mean*</i>	<i>F</i>	<i>p-Value</i>
All relevant evidence presented?	Majority	3.92 <sup>a</sup>	5.61	0.004
	Conforming Dissenters	3.44 <sup>b</sup>		
	Holdouts	2.65 <sup>c</sup>		
Easy to understand evidence?	Majority	4.82 <sup>a</sup>	3.00	0.050
	Conforming Dissenters	4.44 <sup>b</sup>		
	Holdouts	4.06 <sup>b</sup>		
Easy to understand experts?	Majority	5.20 <sup>a</sup>	2.15	0.117
	Conforming Dissenters	5.02 <sup>a</sup>		
	Holdouts	6.12 <sup>a</sup>		
How believable were the police?	Majority	4.93 <sup>a</sup>	5.33	0.005
	Conforming Dissenters	4.92 <sup>a</sup>		
	Holdouts	3.53 <sup>b</sup>		
How skillful the prosecutor?	Majority	4.73 <sup>a</sup>	5.35	0.005
	Conforming Dissenters	4.23 <sup>b</sup>		
	Holdouts	3.65 <sup>b</sup>		
How satisfied with the manner the trial was conducted?	Majority	5.20 <sup>a</sup>	7.95	0.000
	Conforming Dissenters	4.41 <sup>b</sup>		
	Holdouts	4.65 <sup>b</sup>		
How strong was prosecution's case?	Majority	4.48 <sup>a</sup>	7.15	0.001
	Conforming Dissenters	4.03 <sup>b</sup>		
	Holdouts	2.94 <sup>b</sup>		

NOTES: \*All responses were along a 7-point Likert scale (i.e., 7 = strongly agree, very easy, very believable, very skillful, very satisfied, very strong). <sup>a,b,c</sup>Means with different superscripts differ significantly at  $p < 0.05$  by the Tukey honestly significant difference test.

### 3. Differences in Deliberations

When jurors were asked about the deliberation process and juror interactions, juries with dissenters, as expected, indicated there was more conflict and more time spent convincing one another to arrive at a verdict (see Table 4). The mean ratings suggest that the deliberations were not overly contentious ( $M = 3.5$  on a seven-point scale, where 7 = a great deal of conflict). However, juries with a dissenter were more likely to report that one or two people dominated discussions. Dissenting jurors reported that they participated more in deliberations, but felt they were less influential. Additionally, dissenters recalled that their jury was less open-minded and that each juror's viewpoint was not as thoroughly considered. Again, the ratings along these dimensions were relatively high overall, indicating jurors generally saw one another as open-minded, but this was less true for dissenting jurors. Understandably, dissenting jurors were more surprised with others' votes and less satisfied with both the deliberations and the final decision.

Table 4: Deliberations Issues

<i>Question Asked of Jurors</i>		<i>Mean*</i>	<i>F</i>	<i>p-Value</i>
How surprised were you by other jurors' votes?	Majority	3.23 <sup>a</sup>	20.33	0.000
	Conforming Dissenters	3.84 <sup>b</sup>		
	Holdouts	4.36 <sup>b</sup>		
How open-minded was the jury to each other's ideas?	Majority	5.69 <sup>a</sup>	38.91	0.000
	Conforming Dissenters	5.02 <sup>b</sup>		
	Holdouts	4.40 <sup>c</sup>		
How much did you participate in jury deliberations?	Majority	5.73 <sup>a</sup>	1.79	0.168
	Conforming Dissenters	5.86 <sup>a</sup>		
	Holdouts	6.03 <sup>a</sup>		
How influential were you in the deliberations?	Majority	4.55 <sup>a</sup>	6.10	0.002
	Conforming Dissenters	4.48 <sup>a</sup>		
	Holdouts	3.96 <sup>b</sup>		
How much did one or two jurors dominate?	Majority	3.72 <sup>a</sup>	13.90	0.000
	Conforming Dissenters	4.36 <sup>b</sup>		
	Holdouts	4.30 <sup>b</sup>		
How thoroughly was each juror's point of view considered?	Majority	6.00 <sup>a</sup>	21.51	0.000
	Conforming Dissenters	5.58 <sup>b</sup>		
	Holdouts	5.20 <sup>c</sup>		
How much conflict on jury?	Majority	2.98 <sup>a</sup>	21.98	0.000
	Conforming Dissenters	3.42 <sup>b</sup>		
	Holdouts	4.39 <sup>c</sup>		
Were you given enough time to express your views?	Majority	6.43 <sup>a</sup>	7.33	0.001
	Conforming Dissenters	6.10 <sup>b</sup>		
	Holdouts	6.32 <sup>ab</sup>		
How much time and effort was spent trying to convince to agree?	Majority	4.63 <sup>a</sup>	31.37	0.000
	Conforming Dissenters	5.14 <sup>b</sup>		
	Holdouts	6.26 <sup>c</sup>		
How satisfied were you with the deliberations?	Majority	6.00 <sup>a</sup>	44.28	0.000
	Conforming Dissenters	5.19 <sup>b</sup>		
	Holdouts	4.84 <sup>c</sup>		
How satisfied were you with the decision?	Majority	6.05 <sup>a</sup>	76.07	0.000
	Conforming Dissenters	4.93 <sup>b</sup>		
	Holdouts	4.16 <sup>c</sup>		
How easy for you personally to decide on verdict?	Majority	4.60 <sup>a</sup>	39.18	0.000
	Conforming Dissenters	3.50 <sup>b</sup>		
	Holdouts	4.09 <sup>c</sup>		
Agree it is difficult to judge due to religious beliefs?	Majority	2.14 <sup>a</sup>	3.52	0.030
	Conforming Dissenters	2.22 <sup>a</sup>		
	Holdouts	1.64 <sup>b</sup>		

NOTES: \*All responses were along a 7-point Likert scale (i.e., 7 = very surprised, very open-minded, a great deal, very influential, very thoroughly, very satisfied, very easy, very difficult).  
<sup>a,b,c</sup>Means with different superscripts differ significantly at  $p < 0.05$  by the Tukey honestly significant difference test.

Table 5: Fairness of the Law and General Attitudes

Question Asked of Jurors		Mean*	F	p-Value
<b>Fairness Issues</b>				
How fair was the law in this case?	Majority	5.78 <sup>a</sup>	39.14	0.000
	Conforming Dissenters	5.08 <sup>b</sup>		
	Holdouts	4.74 <sup>b</sup>		
How fair was the legally correct outcome?	Majority	5.48 <sup>a</sup>	59.66	0.000
	Conforming Dissenters	4.59 <sup>b</sup>		
	Holdouts	4.06 <sup>c</sup>		
How harsh were consequence of conviction?	Majority	4.31 <sup>a</sup>	5.82	0.003
	Conforming Dissenters	4.05 <sup>b</sup>		
	Holdouts	4.39 <sup>a</sup>		
<b>General Attitudes</b>				
How much do you trust police in your community?	Majority	5.14 <sup>a</sup>	11.65	0.000
	Conforming Dissenters	4.72 <sup>b</sup>		
	Holdouts	4.73 <sup>b</sup>		
How much do you trust the courts in your community?	Majority	5.47 <sup>a</sup>	7.73	0.000
	Conforming Dissenters	5.16 <sup>b</sup>		
	Holdouts	5.24 <sup>ab</sup>		

NOTES: \*All responses were along a 7-point Likert scale (i.e., 7 = very fair, a great deal, too harsh). <sup>a,b,c</sup>Means with different superscripts differ significantly at  $p < 0.05$  by the Tukey honestly significant difference test.

When dissenting jurors conformed to the majority, they were more likely to state that there was less time to express their views. In line with their greater uncertainty, as reported above, jurors who were passive in their dissent were more likely to say that it was hard for them to personally decide on a verdict as compared to the other groups. Responses to these two questions distinguished the two types of dissenting jurors, holdouts and conforming dissenters. The latter were more frustrated in making the decision personally and in expressing their verdict preference.

Dissenting jurors judged the law and the legally correct outcome as less fair than the majority jurors (see Table 5). However, the actual scores suggest that, overall, jurors felt the law was relatively fair (mean = approximately 5 on a seven-point scale, in which 7 = very fair).

*D. Multivariate Analyses*

Several multivariate statistical models assessed differences among majority and dissenting jurors. The models accommodated for the fact that jurors on the same jury are not independent by using a nested design that set each jury

as a principal sampling unit.<sup>23</sup> The first set of models differentiates majority jurors from dissenting jurors. The second model predicts conforming dissenters from holdout jurors. A third set of models predicts dissenters from holdout jurors, but explores the orientation of the dissenter (acquittal or conviction prone). Previous analyses on these data have revealed significant variations between the four jurisdictions.<sup>24</sup> Thus, when possible, the models also provide for a subsequent breakdown by site.

The first model, shown in Table 6, predicts dissenters (both holdouts and conforming dissenters) from those whose one-person verdicts align with the majority. Note that both jurors arguing for conviction and jurors arguing for acquittal are included in the dissenters group in this model, and also that acquittal-prone dissenters are more common than conviction-prone dissenters. Thus this first model reflects multifaceted views of jurors. Predictor variables included the site, voting behaviors and procedures, evidentiary issues, juror demographic characteristics, and juror attitudes.

The model results confirm the univariate analyses that procedural factors are important. Dissenters were more likely to be on juries that voted earlier in the deliberation process and had secret ballots. Perceptions of the difficulty of the evidence were also useful in predicting group membership. Dissenters were more likely than majority jurors to agree that the evidence was difficult to understand. Juror views of fairness were also key to predicting dissent. Dissenting jurors believed that the consequences of a conviction, the applicable law, and the legally correct outcome were only moderately fair to the defendant (averages were approximately 4 on a seven-point scale), whereas majority jurors saw these dimensions as significantly more fair.

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<sup>23</sup>Complementary log-log models provide an alternative to logistic and probit analysis for binary response variables. A complementary log-log function is asymmetrical and appropriate when the probability of an event, in this case dissention, is small. In addition to the complementary log-log models presented in Tables 6 through 8, a two-stage probit model was explored. The rationale behind performing a two-stage probit analysis is to determine whether a selection effect is present. It makes sense to consider a two-stage model, since the existence of holdout jurors at the second stage is dependent on the existence of dissenting jurors at the first stage. The results of the two-stage model analysis demonstrate that there was no selection effect ( $\rho = 0$ ), as determined by a Wald test of independent equations (Wald  $\chi^2(1) = 0.13$ , Prob.  $\chi^2 = 0.7229$ ). As a result of this finding, separate complementary log-log models, with controls for the nesting of jurors within juries, are presented in this article.

<sup>24</sup>The conviction rates ranged from a high of 63 percent in Maricopa County to a low of 33 percent in Bronx County and DC. The hung jury rate (hanging on any charge presented to the jury) ranged from a high of 23 percent in DC to a low of 7 percent in Maricopa County. Hannaford et al., *supra* note 3.

Table 6: Regression Model Predicting Dissenters (= 1) from Majority (= 0)

	Combined (N = 2413)		LA (N = 703)		DC (N = 696)		Bronx (N = 407)		Manicopa (N = 607)	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
<b>Voting Behaviors</b>										
Secret ballot (1 = yes)	<b>0.34*</b>	<b>0.16</b>	1.08*	0.39	0.00	0.23	0.79*	0.39	0.22	0.34
First vote (6 = end of delibs)	<b>-0.12*</b>	<b>0.05</b>	-0.05	0.12	-0.08	0.08	-0.20	0.11	-0.08	0.15
Begin leaning (8 = during delibs)	<b>0.01</b>	<b>0.03</b>	0.07	0.05	-0.06	0.04	0.17*	0.02	-0.04	0.10
Certain on first vote (7 = very certain)	<b>-0.01</b>	<b>0.04</b>	0.07	0.10	0.00	0.05	-0.08	0.08	-0.16*	0.08
<b>Demographics</b>										
Black	<b>0.27</b>	<b>0.18</b>	0.15	0.47	-0.09	0.27	0.10	0.42	0.81	0.50
Hispanic	<b>0.22</b>	<b>0.16</b>	0.27	0.33	-0.32	0.46	0.23	0.41	0.17	0.34
College degree (yes = 1)	<b>0.16</b>	<b>0.13</b>	0.07	0.24	0.19	0.24	0.26	0.27	-0.14	0.36
<b>Evidence</b>										
Understand evidence (7 = very easy)	<b>-0.12*</b>	<b>0.05</b>	0.01	0.11	-0.15*	0.06	-0.06	0.11	-0.25*	0.11
Evidence favors one side (4 = strongly)	<b>-0.22</b>	<b>0.07</b>	-0.42*	0.16	-0.16	0.10	-0.04	0.14	-0.41	0.22
<b>Attitudes</b>										
Conseq. of conviction (7 = too harsh)	<b>-0.14*</b>	<b>0.06</b>	-0.05	0.12	-0.05	0.09	-0.37*	0.14	-0.10	0.19
Legally correct outcome (7 = very fair)	<b>-0.22*</b>	<b>0.04</b>	-0.22*	0.10	-0.14*	0.07	-0.01	0.09	-0.51*	0.10
How fair was law (7 = very fair)	<b>-0.10*</b>	<b>0.04</b>	-0.16*	0.07	-0.11*	0.06	-0.08	0.10	0.06	0.15
Trust police in community (7 = great deal)	<b>-0.09</b>	<b>0.05</b>	-0.04	0.10	-0.12	0.07	0.01	0.10	-0.12	0.13
Judge for religion reason (7 = very difficult)	<b>-0.03</b>	<b>0.04</b>	-0.01	0.10	-0.09	0.08	-0.22*	0.09	0.21*	0.09
Constant	<b>1.73</b>	<b>0.52</b>	-0.40	1.27	2.03	0.73	0.70	1.20	3.47	1.36

NOTE: Table reflects results of a complementary log-log regression model that accounts for the nonindependence of jurors who sat on the same case. \*Indicates the coefficient is significant at  $p < 0.05$ .

Table 7: Regression Model Predicting Holdouts (= 1) from Conforming Dissenters (= 0), *N* = 230

	<i>Coeff.</i>	<i>SE</i>
<b>Deliberations/Voting Behaviors</b>		
Secret ballot (1 = yes)	0.72	0.37
Certain on first vote (7 = very certain)	0.29*	0.13
Time to express views (7 = enough time)	0.07	0.09
Easy to decide personally (7 = very easy)	-0.46*	0.10
Influential during delibs (7 = very)	-0.4*	0.11
Judge for religious reason (7 = difficult)	-0.2	0.12
<b>Demographics</b>		
Black	0.46	0.34
Hispanic	0.44	0.37
College degree (yes = 1)	-0.26	0.29
<b>Evidence</b>		
Understand evidence (7 = very easy)	0.01	0.09
Understand expert evidence (7 = very easy)	0.27*	0.10
Police testimony (7 = very believable)	-0.31*	0.10
Evidence favors one side (4 = strongly)	0.01	0.12
<b>Attitudes</b>		
Legally correct outcome (7 = very fair)	-0.13	0.08
Consequences of conviction (7 = too harsh)	0.09	0.11
Constant	-0.34	1.39

NOTE: Table reflects results of a complementary log-log regression model that accounts for the nonindependence of jurors who sat on the same case. \*Indicates the coefficient is significant at  $p < 0.05$ .

Neither the jurors’ racial and ethnic background nor their level of education predicted dissention.

The site-specific models, also shown in Table 6, illustrate that location matters. The particular factors that predict dissent vary somewhat depending on the jurisdiction. Procedurally, dissenting jurors in LA and Bronx counties were more likely to be on juries with secret ballots, and in the Bronx, they began forming an opinion about the defendant’s guilt later than those in the majority. In Maricopa County, dissenting jurors were less certain during the jury’s first vote. Dissenting jurors from DC and Maricopa County indicated more difficulty understanding the evidence in comparison to the majority jurors in these jurisdictions. In LA, dissenting jurors were more apt than majority jurors to say that the evidence did not strongly favor one side.

Despite differences across sites, there were some common patterns. Across all the models (i.e., locations), jurors’ demographic variables failed to

differentiate dissenters from jurors who voted with the majority. Juror attitudes about fairness contributed to dissent in all four sites. All dissenters, except those in the Bronx, were more apt than majority jurors to feel that the legally correct outcome was unfair. In the Bronx, dissenters felt that the consequences of conviction were too lenient. This might be expected in a site with a high acquittal rate such as the Bronx, as dissenting jurors who favored conviction there were more common than those who favored acquittal, as was true for the other sites. Overall, juror attitudes about fairness appear to drive their propensity to dissent. However, because these models combine pro-acquittal and pro-conviction dissenters, and dissenters who conform and those who hang the jury, they do not tell the full story.

What are the differences between dissenters who conform to the majority and those who choose to hold out and hang the jury? Results from the second set of multivariate models predict holdouts from conformers. Although previous analyses demonstrate that location matters, because of the small sample size of holdout jurors, this model does not incorporate a breakdown by site (see Table 7). Once again, but perhaps surprisingly, demographic characteristics do not predict which dissenters acquiesce to the majority and which hold out. Instead, holdout dissenters rated police testimony as less believable. Holdouts indicated more certainty on the jury's first vote, but even though these jurors hung the jury, they felt they were less influential during jury deliberations.

Since a dissenter can argue either for a conviction or an acquittal, we expected that these two groups are distinctively motivated. Therefore, in a third set of multivariate models, dissenters were split into subgroups—dissenters who were conviction prone and those who were acquittal prone. Confirming the asymmetric bias noted earlier, dissenting conformists more often argued for guilt, while the more numerous holdouts favored acquittal. Sixty percent of conforming dissenters voted to convict, while 72 percent of holdouts voted to acquit. Table 8 shows the multivariate models for the acquittal-prone dissenters and the conviction-prone dissenters. As with the model in Table 7, the small size of the groups precludes a site comparison.

First, the model for the acquittal-prone dissenters fits the data very well. In fact, this model correctly classified jurors 86 percent of the time. This percent reflects an improvement of 39 percent over a naïve control model (predicting jurors will always conform). Acquittal-prone dissenters who held out to hang their juries were more certain about their first vote and were more likely to be in a jury that polled jurors through a secret ballot. Holdouts indicated there was more time to express their views than conforming dis-

Table 8: Regression Model Predicting Holdouts (= 1) from Conforming Dissenters (= 0)

	<i>Acquittal-Prone Dissenters (N = 121)</i>		<i>Conviction-Prone Dissenters (N = 113)</i>	
	<i>Coeff.</i>	<i>SE</i>	<i>Coeff.</i>	<i>SE</i>
<b>Deliberations/Voting Behaviors</b>				
Secret ballot (1 = yes)	1.52*	0.47	0.53	0.71
Certain on first vote (7 = very certain)	0.49*	0.18	0.43	0.32
Time to express views (7 = enough time)	0.27*	0.14	0.42	0.29
Easy to decide personally (7 = very easy)	-0.85*	0.18	-0.23*	0.10
Influential during delibs (7 = very)	-0.43*	0.12	-0.71	0.36
Judge for religious reason (7 = difficult)	-0.36*	0.14	-0.46	0.53
<b>Demographics</b>				
Black	0.09	0.44	0.57	0.66
Hispanic	0.86*	0.35	0.25	0.65
College degree (yes = 1)	-0.19	0.37	-0.10	0.81
<b>Evidence</b>				
Understand evidence (7 = very easy)	-0.16	0.15	0.19	0.13
Understand expert evidence (7 = very easy)	0.56*	0.16	0.40*	0.14
Police testimony (7 = very believable)	-0.20	0.14	-0.11	0.17
Evidence favors one side (4 = strongly)	-0.05	0.16	0.33	0.26
<b>Attitudes</b>				
Legally correct outcome (7 = very fair)	-0.61*	0.17	0.19	0.13
Consequences of conviction (7 = too harsh)	-0.63*	0.22	0.46	0.14
Constant	3.10	2.08	-9.11	3.72

NOTE: Table reflects results of a complementary log-log regression model that accounts for the nonindependence of jurors who sat on the same case. \*Indicates the coefficient is significant at  $p < 0.05$ .

senters, yet also believed they were less influential. The model also reveals that perceived fairness matters. Holdouts for an acquittal rated the legally correct outcome as less fair ( $M = 4.0$ ) than the conforming dissenters who favored acquittal ( $M = 4.8$ ).

Although the differences are small according to a bivariate comparison, the multivariate model identifies that Hispanics are more likely than Caucasians to be among the holdouts to acquit. This emphasizes the importance of incorporating multiple factors in prediction models. Although site controls were not included in the model due to the number of observations at this level, an inspection of the site distribution of the Hispanic dissenters did not show a site clustering; rather, the Hispanic dissenters were spread across the sites. Finally, acquittal-prone holdouts believed they understood the expert evidence better than the conforming dissenters who favored acquittal.



As for the conviction-prone dissenters who held out or conformed, they too differed on expert evidence perceptions, such that conviction-prone holdouts thought they understood the expert evidence better than their conforming colleagues. There were no race or ethnicity effects for conviction-prone dissenters. The only other significant predictor was that holdouts for conviction found it personally more difficult to reach a decision than those who conformed to acquit the defendant. Those who conformed felt they were marginally ( $p = 0.055$ ) more influential than the holdout jurors. It is possible that conforming dissenters were, in fact, able to effect changes in the jury's eventual verdict, or that there simply was more successful normative and informative influence operating in the acquitting juries than in juries where a convicting minority hung the jury.

#### IV. DISCUSSION

The data collected as part of the NIJ-funded NCSC hung jury study continue to show value in addressing a wide range of research issues, including questions analyzed in this article about the formation of jurors' individual opinions in felony trials and the relationship between these individual views and group verdicts. Overall, the results confirm some prior research and identify new issues worthy of further exploration.

Regarding the process of opinion formation, jurors rarely report leaning toward one side or another early in the case; instead, they more often begin to favor one side or another during the state's evidence presentation, the defense evidence presentation, and even in the jury deliberation. Jurors report often changing their minds during the trial. This presents a more fluid and flexible picture of juror decision making than that suggested by the pundits who say the trial's all over after the opening statements.

It is useful to contrast the Hannaford et al. civil jury study of opinion formation and change with the current project. There are some remarkable similarities; low numbers of both civil and criminal jurors say they began leaning toward one side during opening statements. Closing arguments and judicial instructions are also case segments identified by a relatively small proportion of both criminal and civil jurors. About one in five civil and criminal jurors say they began leaning toward one side during jury deliberations. The evidentiary portions of the trial dominate all other segments in both types of trials, but the prosecution's evidence in

criminal trials is apparently more influential. For example, 24 percent of civil jurors say they began leaning toward one side during the plaintiff's evidence, compared to over 37 percent of criminal jurors who say they began leaning during the prosecution's evidence. The defense evidence is slightly more important in civil trials (19 percent) than in criminal trials (15 percent).

Analyses of the relationship between individual juror preferences and final jury decisions reinforce their strong connection, found in earlier analyses of this data set, other studies of jurors, and mock jury experiments.<sup>25</sup> However, one unique contribution of our analysis is to complicate the notion of the juror's individual preference and, indeed, of jury unanimity. We measured jurors' verdict preferences in several different ways, asking which side they favored, their initial and final votes, and their one-person jury verdicts. Although all of these are strongly related, they are not identical. What is more, the analyses reveal that a sizable proportion of jurors eventually voted in line with the group but at odds with their personal preferences. A substantial minority of jurors, if given the chance to decide the verdict alone, say they would have voted against their jury's decision.

Despite the complications in interpreting the question, it is worth considering why a sizeable proportion of jurors report a one-person jury verdict that differs from the jury's decision. In addition to group factors that influence conformity, jurors' views of the evidence, jurors' sense of fairness, and deliberation procedures were all found to be related to the likelihood they would dissent. We also propose that juror role expectations affected dissenting jurors' willingness to go along with the majority.

Classic studies in social psychology on social pressure to conform have found that individuals regularly conform to the majority views of a group, particularly if they are alone and without other supporters, and we see that operating in the jury context.<sup>26</sup> Minority faction size is critical to predicting the final outcome. In this study, the chances of a jury reaching a verdict decreased with an increase in the minority faction size. Larger factions

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<sup>25</sup>Prior analyses documenting the effect in this data set include Eisenberg et al., *supra* note 5, Hannaford et al., *supra* note 3, and Hans et al., *supra* note 11. Other supportive research may be found in Devine et al., *supra* note 9, and Kalven & Zeisel, *supra* note 9.

<sup>26</sup>Classic citations of conformity effects in groups include Solomon E. Asch, *Studies of Independence and Conformity. A Minority of One Against a Unanimous Majority*, 70 *Psychol. Monographs* (Whole No. 416) (1956); Roger Brown, *Social Psychology* 656-708 (1965).

produced the strength and support needed to sustain deliberations and were more apt to hang the jury.<sup>27</sup>

Aspects of the trial evidence may hold the key to juror conformity and dissent. If the evidence does not strongly support one side, others may more easily persuade a juror to compromise. Recall that dissenting jurors who conformed were more uncertain about the evidence and found it more difficult to come to a firm decision about the merits of the case. Whether the bulk of the evidence favors the prosecution or the defense also seems important. An asymmetric bias was not found in comparisons of first to final votes of juries, but it did emerge as we examined dissenting jurors who conformed to the majority or who hung the jury. The significance of legal fairness variables among dissenters converges with their links to verdict choices more generally.<sup>28</sup>

Some scholars have discussed the role of race and gender in jury deliberations and dissent.<sup>29</sup> With one exception, in which Hispanics were more likely than Caucasians to be holdouts to acquit, demographic factors such as race, ethnicity, gender, and age did not significantly predict dissent in this sample. Because the comparison of acquittal-prone jurors included relatively small numbers of jurors from four jurisdictions with diverse populations, it would be useful in future studies to examine the relationship between demographic characteristics and dissent in a broader range of jurisdictions.

In terms of other factors that might persuade an individual to acquiesce to the majority verdict preference, we suggest that jurors' role expectations are important. First, the dissenting juror may be adhering to the formal letter of the law, even though that is at odds with his or her common sense of justice. Judicial instructions provide jurors with a legal framework to apply the evidence they heard. Jurors may believe the legally correct outcome to be unfair, but choose to follow the instructions and thus acquiesce to the legally correct majority preference, even though they, personally, wish for the opposite result. Jurors are not voting in line with their personal preferences (or conscience) but they are following their interpretation of the law. Our

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<sup>27</sup>Devine et al., *supra* note 8.

<sup>28</sup>Eisenberg et al., *supra* note 5; Garvey et al., *supra* note 4; Hannaford & Hans, *supra* note 6; Hannaford et al., *supra* note 3.

<sup>29</sup>See, e.g., Kim Taylor-Thompson, Empty Votes in Jury Deliberations, 113 *Harv. L. Rev.* 1261 (2000).

results indicate that jurors who dissented and hung the jury believed the legally correct outcome was less fair than those in the majority.

A central part of the juror's role is arriving at a verdict unanimously or nearly unanimously. The expectation placed on all jurors from the very beginning of their jury service is that they will listen to the evidence presented at trial, apply the law as described in the jury instructions, and, after discussing the evidence and law, arrive at a group consensus about the verdict. These role expectations combine with typical conformity pressures in groups to encourage jurors to accede to the majority view even if they are not privately as fully persuaded as others. The desire to fulfill one's job as a juror may outweigh one's individual verdict preferences in some cases.

In addition to evidentiary and role concerns, a third explanation suggests that structural aspects of deliberations influenced the extent to which jurors' verdict preferences were reflected in the jury's final verdict. Dissenting jurors were more likely to be on juries that voted early in the deliberation process and used secret ballots. Vote timing and use of secret ballots tend to co-occur, and are more likely to be present in contentious or complex cases from an evidentiary, group, or political perspective. However, they could also be important causal variables in their own right. For instance, the timing of the vote and the public versus private expression of individual views might well encourage or discourage jurors to voice their opinions. Effective leadership might facilitate the full exchange of views, which would lead to genuine opinion influence. Our results reveal that dissenting jurors were more apt than majority jurors to say that one or two jurors dominated deliberations and, as expected, there was more conflict on the jury.

What all this suggests is that, contrary to Kalven and Zeisel's sense that jury deliberations are unimportant, deliberations play a vital role in generating juror consensus, the consensus that comes from opinion change as well as from conformity to the majority view. These data also shed new light on the current debate over the requirement that juries be unanimous in their verdict.<sup>30</sup> What seems clear is that unanimous jury decisions include not only those cases in which there is genuine agreement, but also a significant number of cases in which jurors "agree to disagree" and acquiesce. Jury decisions are not unique in this regard. Empirical studies of appellate

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<sup>30</sup>American Bar Association, *Principles for Juries & Jury Trials* (2005); Shari S. Diamond, Mary R. Rose & Beth Murphy, *Revisiting the Unanimity Requirement: The Behavior of the Non-Unanimous Civil Jury*, 100 *Nw. U. L. Rev.* 201 (2006); Valerie P. Hans, *The Power of Twelve: The Impact of Jury Size and Unanimity on Civil Jury Decision Making*, 4 *Del. L. Rev.* 1 (2001).

decision making confirm many anecdotal reports that judges behave strategically to maximize their policy objectives, and that includes voting in line with the majority despite holding contrary private views.<sup>31</sup> Accommodations that occur among members of a panel or court include reducing the ideological tone of majority opinions, modifying sections of opinions, and rendering mixed decisions in which benefits are provided to both parties. A norm of judicial consensus promotes the legitimacy of the court, just as apparent jury unanimity enhances the legitimacy of the jury and its verdict.

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<sup>31</sup>See, for example, Joshua B. Fischman, *Decision-Making Under a Norm of Consensus: A Structural Analysis of Three-Judge Panels* (2008), unpublished manuscript available at (SSRN.com); Stefanie A. Lindquist, Wendy L. Martinek & Virginia A. Hettinger, *Splitting the Difference: Modeling Appellate Court Decisions with Mixed Outcomes*, 41 *Law & Soc. Rev.* 429, 434–35 (2007).