The Role of "Stories" in Civil Jury Judgments

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THE ROLE OF "STORIES" IN CIVIL JURY JUDGMENTS

Reid Hastie*

A brief review of psychological theories of juror decision making is followed by an introduction to "explanation-based" theories of judgment. Prior empirical studies of explanation-based processes in juror decision making are then reviewed. An original empirical study of jurors' judgments concerning liability for punitive damages is presented to illustrate the explanation-based approach to civil decisions.

INTRODUCTION

How do ordinary people make judicial decisions? Though this question is fundamental to any practical understanding of the role and performance of lay juries, it does not yet have a definitive answer. The answer is sure to be complex, however, as the human mind is a very flexible device. Combined with the varied "cognitive environment" of legal cases, the result is a great diversity of cognitive patterns and strategies. Further uncertainty is introduced by the diversity of experts' opinions about what kind of a descriptive theory would be most useful. Even within psychology, only one of the behavioral sciences that aspires to answer the question, there are at least three different approaches to a theory of juror decision making. We will review current models of juror decision making and focus on the application of our own "explanation-based approach." An original study of mock-jurors' judgments of liability for punitive damages will be described to illustrate this approach and to argue for its value in explicating civil jury decision processes.

The first psychological approach to jury decision making is the "catalog of facts" research tactic.1 Dozens of empirical studies have

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been conducted to describe various facets of jury judgments: Can jurors ignore legally proscribed but intuitively relevant evidence when instructed to disregard it? Are obnoxious attorneys "shooting themselves in the foot" with aggressive trial tactics? Do bifurcated (liability decision separated from damages judgment) or unitary trial procedures yield more plaintiffs' verdicts and higher awards? Do authoritarian jurors render different verdicts than non-authoritarian jurors? Do the forms of heuristic reasoning observed in non-legal judgments also appear in juror decisions? These studies provide useful facts about juror and jury behavior, but they have not led to the development of a general model of juror decision processes.

A second type of answer can be found in the form of algebraic process models that describe the inferences made by jurors from the evidence and other information in reaching their verdicts. Two traditions of algebraic modeling have been most popular: models that are based on rational, Bayesian belief updating principles derived from mathematical probability theory and models that are based on robust, linear averaging combination rules. At the moment, the linear models have been more successful than the Bayesian models in describing jurors' decision processes in empirical studies. In our view, these algebraic formulations are useful models of the global judgment process, although we believe that they are best viewed as descriptions of a generic process at a level a few steps more abstract than the detailed "computations" that are the most valid description of individual reasoning processes. Furthermore, these models focus on mental processes but, for the most part, ignore the nature of jurors' mental representa-

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2. See Carolyn B. Murray et al., The O.J. Simpson Verdict: Predictors of Beliefs About Innocence or Guilt, 53 J. Soc. Issues 455, 458 (1997) ("The authoritarian personality is characterized by racial prejudice, a pseudo-conservative world view, submission to authority, and stereotypical beliefs." (citation omitted)).

3. See generally Reid Hastie, Algebraic Models of Juror Decision Processes, in INSIDE THE JUROR, supra note 1, at 84 [hereinafter Hastie, Algebraic Models].


tions and memories that also play a major role in complex legal judgments. A third answer to the question of how jurors think takes the form of a cognitive description of the inferences or computations that occur in an individual juror's mind. Our theory of juror decision processes is an example of this third approach. We call our theory the "Story Model" because we claim the central cognitive process in juror decision making is story construction—the creation of a narrative summary of the events under dispute. Our first application of the Story Model to criminal judgments identified three component processes: (1) evidence evaluation through story construction, (2) representation of the decision alternatives (verdicts) by learning their attributes or elements, and (3) reaching a decision through the classification of the story into the best fitting verdict category.

These latter processes are likely to vary with the demands of different decision tasks. Some tasks involve a classification response, some an estimate or judgment of a magnitude, and some a projection to future events. For example, the shift from criminal judgments, where categorical verdicts play a prominent role, to civil judgments, where degrees of responsibility play the analogous role, changes these last stages. However, our fundamental assumption, supported by the results of our empirical studies, is that many decisions involve the story construction process assigned to the first stage in the model. Thus, the central claim of the model is that the story the juror constructs determines the juror's verdict. More generally we claim that causal "situation models" play a central role in many explanation-based decisions in legal, medical, engineering, and financial circumstances.

In our explanation-based model, the decision process is divided into three stages: (1) construction of a summary explanation, (2) determination of decision alternatives, and (3) mapping the explanation onto a best-fitting decision alternative. This subtask framework contrasts with the continuous on-line updating

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8. See generally Nancy Pennington & Reid Hastie, A Theory of Explanation-Based Decision Making, in Decision Making in Action: Models and Methods 188 (Gary A. Klein et al. eds., 1993) [hereinafter Pennington & Hastie, Decision Making].
11. See Pennington & Hastie, Decision Making, supra note 8, at 188-90.
computation hypothesized by the algebraic model approaches.\textsuperscript{15} Furthermore, we diverge sharply from traditional approaches with our emphasis on the structure of memory representations as the key determinant of decisions.\textsuperscript{14} We also depart from the common assumption that, when causal reasoning is involved in judgment, it can be described by algebraic, stochastic, or logical computations that lead directly to a decision.\textsuperscript{15} In our model, causal reasoning plays a subordinate but critical role by guiding inferences in evidence evaluation and construction of the intermediate explanation.\textsuperscript{16}

An illustration of our focus on the role of narrative evidence summaries is provided by an interpretation of the dramatic differences between white and African-American citizens’ reactions to the verdict in the O. J. Simpson murder trial.\textsuperscript{17} We hypothesize that race made a difference in the construction and acceptance of the “defense story” in which a racist police detective (Mark Fuhrman) planted incriminating evidence.\textsuperscript{18} African-Americans, compared to white Americans, have many more beliefs and experiences that support the plausibility of stories of police misconduct and police bigotry.\textsuperscript{19} Most African-Americans or members of their immediate families have had negative, and possibly racist, encounters with justice system authorities.\textsuperscript{20} African-Americans know of many more stories (some apocryphal, some veridical) of police bigotry and police brutality directed against members of their race than do whites.\textsuperscript{21} Thus, we speculate that this background of experience, beliefs, and relevant stories made it easy for African-Americans to
construct a story in which a police officer manufactured and planted key incriminating evidence and made the constructed story more plausible to African-American jurors and citizens as compared to their white counterparts.\(^{22}\)

I. Background Empirical Studies

Like most research on the psychology of juror decision making, our research on the Story Model has focused on mock-jurors' decisions in criminal cases.\(^{23}\) Our initial research elicited descriptions of mental representations of evidence and verdict information after mock-jurors had heard the evidence and judge's instructions.\(^{24}\) In the first studies we established that evidence summaries constructed by jurors had a narrative story structure and no other plausible structures, such as a pro versus con argument structure.\(^{25}\) In addition, jurors who had rendered different verdicts had constructed different stories.\(^{26}\)

In a second empirical study we established that mock-jurors spontaneously constructed causal accounts of the evidence when rendering verdicts in criminal cases.\(^{27}\) In this study, mock-jurors' responses to sentences presented in a recognition memory task were used to draw conclusions about mock-jurors' post-decision representations of evidence.\(^{28}\) Mock-jurors were more likely to "recognize" as having been presented as trial evidence sentences from the story associated with their verdict than sentences from stories associated with other, rejected verdicts.\(^{29}\)

A third experiment was conducted to study the effects of variations in the order of evidence presentation on judgments.\(^{30}\) Stories were predicted to be easy to construct when the evidence was presented in a temporal sequence that matched the occurrence of the

\(^{22}\) See id.


\(^{25}\) See id. at 244.

\(^{26}\) See id. at 248–51.

\(^{27}\) See Nancy Pennington & Reid Hastie, Explanation-Based Decision Making: Effects of Memory Structure on Judgment, 14 J. EXPERIMENTAL PSYCHOL.: LEARNING, MEMORY AND COGNITION 521, 523–28 (1988) [hereinafter Pennington & Hastie, Memory Structure].

\(^{28}\) See id. at 521–33.

\(^{29}\) See id. at 528–29.

\(^{30}\) See id. at 528–30.
original events (Story Order). Stories were predicted to be difficult to construct when the presentation order did not match the sequence of the original events. We based the non-Story Order on the sequence of evidence presented by witnesses in the original trial that was the basis of our "stimulus case materials" (Witness Order). As predicted, mock-jurors were likeliest to convict the defendant when the prosecution evidence was presented in Story Order and the defense evidence was presented in Witness Order and they were least likely to convict when the prosecution evidence was in Witness Order and defense was in Story Order.

Subsequent research has addressed some practical questions from the legal trial domain. For example, many criminal cases involve the presentation of only one story, by the prosecution, while the defense tactic is to "raise reasonable doubts" by attacking the plausibility of that story. In these one-sided cases, jurors construct only one story, and confidence in the verdict is determined by coherence and fit of the single story to the verdict category. In this situation, a weak defense story is worse than no story at all; in fact, a weak prosecution story is bolstered and more guilty verdicts are rendered when a weak defense story is presented versus no defense story at all. Another observation that reinforces the lore of trial tactics is that when a narrative rhetorical strategy is used to argue a case, anticipating the story in the attorney's opening statement is an effective tactic. The probability of obtaining a verdict consistent with a story is increased when the story is "primed" in the opening statement, all other factors remaining equal.

32. See Pennington & Hastie, Memory Structure, supra note 27, at 528.
33. See id. at 529.
34. For data from this previously unpublished research, see infra Appendix A.
35. Recent experimental results from the author's laboratory find that a weak defense story results in slightly elevated conviction rates (48–54 percent) as compared to no defense story at all (conviction rates of 42–45 percent). This difference was not statistically reliable, but it is clear that a weak story does not help the defense as compared to having no story at all. Similar results have been obtained by other researchers. See, e.g., Craig R.M. McKenzie et al., When Negative Evidence Increases Confidence: Modeling Change in Confidence After Hearing Two Sides of a Dispute 5, 14, 19, 23 (Dec. 1998) (unpublished manuscript, on file with the University of Michigan Journal of Law Reform).
36. See id.
38. In an unpublished mock-juror decision study, when the prosecution story was "primed" in an opening statement, convictions increased (conviction rate of 75 percent) compared to an experimental condition in which the defense story was "primed" (conviction rate of 40 percent). The difference between these two proportions was statistically reliable (Chi-squared test, 1 d.f. = 5.01, p < 0.05).
II. **Most Recent Empirical Studies: Civil Case Decisions**

We have also extended the research program to include civil cases, specifically an application of the explanation-based model to jurors’ reasoning about liability for compensatory and punitive damages. We presented mock-jurors (citizens sampled from the Denver area) with four experimental cases, each based on an actual case in which the plaintiff sought punitive damages. The cases included fact situations involving four boaters who were drowned after an inadequate recall of the boat model by the manufacturer, an injured seaman who was denied maintenance pay after hiring a lawyer, an employee who was abducted and assaulted in a poorly guarded shopping mall, and thirty-nine seamen who were lost after a remodeled molten sulfur carrier sank. The defendants were all large corporations and the plaintiffs were all private citizens. We employed a typical set of instructions on liability for punitive damages:

You may award punitive damages only if you find that the defendant’s conduct

1. was malicious; or
2. manifested reckless or callous disregard for the rights of others.

Conduct is malicious if it is accompanied by ill will, or spite, or if it is for the purpose of injuring another.

In order for conduct to be in reckless or callous disregard of the rights of others, four factors must be present. First, a defendant must be subjectively conscious of a particular grave danger or risk of harm, and the danger or risk must be a foreseeable and probable effect of the conduct. Second, the particular danger or risk of which the defendant was subjectively conscious must in fact have eventuated. Third, a defendant must have disregarded the risk in deciding how to act. Fourth, a defendant’s conduct in ignoring the danger or risk must have involved a gross deviation from the level of

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40. See id. at 290–91.
care which an ordinary person would use, having due regard to all the circumstances.

Reckless conduct is not the same as negligence. Negligence is the failure to use such care as a reasonable, prudent, and careful person would use under similar circumstances. Reckless conduct differs from negligence in that it requires a conscious choice of action, either with knowledge of serious danger to others or with knowledge of facts which would disclose the danger to any reasonable person. 41

Based on these mock-jurors' written justifications for their verdicts, reinforced by an extensive sample of jurors' discussion during their deliberations, we developed an interpretation of the jurors' thought processes in making liability judgments. 42 We present a summary of the most conscientious form of the decision process but, as our results demonstrated, most mock-jurors did not approach the full level of thoroughness prescribed by this model. 43 However, when jurors did address one of the stages in this "fully conscientious" model, their reasoning usually took the form we outline below.

In the most general terms, the following stages or events occur in a modal individual decision process on the issue of liability for punitive damages. 44 First, the juror constructs a summary model of the events described in the case materials in the form of a chronological, causally-connected narrative. Since no summary story was presented in the experimental evidence, arguments, or instructions, the story construction process is inference-rich and cognitively demanding. Second, many of the mock-jurors assess the strength of the causal relationship between the defendant's actions and the injury claimed by the plaintiff. Third, several of the elements of "callous or reckless conduct" are considered, associated with the issues of whether the defendant did or did not make a conscious choice of action with knowledge or foresight of a serious danger to other persons. Finally, the elements of "gross deviation from an ordinary level of care" and malice are considered. With our case materials, most of these further considerations took

41. Id. at 310–11.
42. See id. at 305–06.
43. See id.
44. See generally id.
stereotyped forms revealing substantial between-juror convergence on a few common reasoning strategies.45

A follow-up study in which college student mock-jurors were asked to "think aloud" about their verdicts provides information about some of these reasoning habits.46 We asked twenty college students, volunteers from an introductory psychology class, to make the punitive damages liability judgment. Each mock-juror read one case with instructions to "make a legal decision just like the ones that jurors make in legal trials . . . [to] follow the trial judge's instructions to decide on a verdict." After reading the case materials they were asked to "think aloud as you make your decision on the verdict." They were then asked to respond to specific questions about each of the legal elements mentioned in the judge's instructions. The contents of the open-ended oral reports were scored to assess the extent to which the student mock-jurors considered each of the five elements and the nature of the reasoning that they applied to evaluate the elements that they did consider.47

As in previous studies, we found that the mock-juror's first step was to construct a narrative summary of the evidence. This summary included the major events from evidence that the juror believed occurred, ordered in a temporal sequence. This narrative included causal linkages, many of them inferred, that served as "glue" holding the story of the credible evidence together. Content analyses showed that, for these cases, the explanatory "glue" usually took the form of inferences about the defendants' motives. Since the defendants were all corporations, "corporate greed" was the most common motivational ingredient in the explanations for, "Yes, liable for punitive damages," decisions. We asked research assistants to classify the global "think aloud" protocol as representative of one of three decision making strategies: Did the mock-juror rely heavily on a chronological, narrative summary of the evidence? Or did he or she rely on a pro versus con argument summary? Or did the mock-juror organize his or her thinking in terms of the legal elements of the liability decision? Or something else? Fifteen out of the twenty student mock-jurors, or 75 percent, were rated as relying primarily on narrative evidence summaries in their verbal "think aloud" reports; three, or 15 percent, responded

45. See id.
46. For data from this unpublished follow-up study, see infra Appendix A.
47. Three research assistants coded the contents of the tape that recorded verbal protocols; disagreements between the assistants were resolved by accepting the majority (two out of three) solution. Reliability was high, with the assistants agreeing on the exact code for over 90 percent of the coded responses.
in terms of the legal elements; and two, or 10 percent, were not classifiable in terms of the three expected strategies.

After constructing an explanatory story, the jurors focused on key actions of the defendant, the actions that were alleged to be the causes of the plaintiffs' injuries. Although an explicit judgment of causation was not mentioned in the judge's instructions, twelve mock-jurors, or 60 percent, explicitly addressed the causal aspect of the defendant's actions. Consistent with the relevant legal concepts, this assessment of causal importance emphasized the "necessity" of the defendant's alleged causal action; seven out of the twelve respondents who considered the issue, or 58 percent, clearly performed a rough and ready "necessity test." These mock-jurors "mutated" the candidate causal event and then "counterfactually" inferred the probability that the harmful effect would still have occurred, if the causal event (defendant's action) had not occurred: If there had been additional guards in a shopping mall, would the assault on the plaintiff/victim have occurred? If there had been a recall program with registered letters mailed to boat owners, would the boat have sunk? When the mock-jurors judged there was a large difference in the probability of the effect, as a function of mutating the cause, they then concluded the candidate was truly a cause of the effect. This observation is especially interesting because the mock-jurors were relying completely on their personal notions of what form of "causal test" was appropriate. They were not given instructions on necessity or "but for" causal relationships in this study, yet they spontaneously adopted this test when assessing causation.

Most jurors attempted to apply the judge's instructions on some of the elements of recklessness. We asked the participants to indicate for each of the major verdict elements, from the judge's instructions, if they had thoroughly considered the issue and which aspects of the evidence were most informative on each issue.

48. The participants had a copy of the judge's instructions available when they rendered their verdicts but not when they answered the open-ended question about their decision process.


50. Cf. H.L.A. Hart & Tony Honore, Causation in the Law 1 (2d ed. 1959) (arguing that it is the "plain man's notions of causation (and not the philosopher's or the scientist's) with which the law is concerned" and describing the "but for" (counterfactual necessity) test for causation). See also Barbara A. Spellman, Crediting Causality, 126 J. Experimental Psychol.: Gen. 323, 323-24 (1997) (stating that the laws regarding causal responsibility are grounded in common sense notions of cause).
As in our high fidelity mock-jury study with citizen participants, our student mock-jurors rarely covered all of the legal elements on which they were instructed. We suspect that the rates at which mock-jurors claimed they had considered legal elements were inflated by our procedure of asking them about each element separately. However, the responses are informative about the relative rates at which the elements were considered and do provide qualitative information about the nature of the jurors’ evaluations.

Was the defendant conscious of a foreseeable, probable danger before deciding to act in a manner that resulted in injury to the plaintiff/victims? Eleven mock-jurors, or 55 percent, said they considered this issue. They attended to evidence that there were tangible “warnings” that the situation was risky: Had there been other violent crimes at the mall where an assault occurred? Had other similar boats had problems with seaworthiness?

Almost all of the mock-jurors—84 percent, or seventeen out of twenty—said that they considered the issue of whether, “the particular danger or risk of which the defendant was subjectively conscious” had in fact occurred, or “eventuated.” The others acknowledged that they had not considered the issue thoroughly, but they had assumed that the defendant’s action and the subsequent dangerous event was the cause of the plaintiff’s injury.

Did the defendant disregard the risk when deciding to take the action that caused the plaintiff’s injury? Eleven mock-jurors, or 55 percent, said this element played a significant role in their considerations. They looked for evidence that an explicit choice (an “act of commission”\footnote{Mark Spranca et al., Omission and Commission in Judgment and Choice, 27 J. EXPERIMENTAL SOC. PSYCHOL. 76, 101–05 (1991) (finding stronger bias in cases where harm resulted from a deliberate omission or commission).}) had been made by the defendant: A security company requested the defendant to hire additional guards. The defendant made a choice between a boat recall campaign or a warning campaign.

Did the defendant’s action exhibit a gross deviation from ordinary care or reasonable conduct? Here the few jurors (30 percent, or six out of twenty) who considered the issue often reasoned by counterfactually imagining themselves in the relevant situation and then inferring what they personally might have done. When their postdiction of their own behavior was highly discrepant from the defendant’s action, they were likely to conclude the defendant’s action was a “gross deviation.”\footnote{Pennington & Hastie, Reasoning, supra note 15, at 152 (discussing jurors’ self analogies in reasoning about the motives of criminal defendants).}
Mock-jurors in the original study and in the college student sample often “imported” personal beliefs and criteria to justify their judgment that the defendant’s action was reckless, e.g., “The company was greedy; cutting-corners, that’s ‘reckless’;” “They weren’t thinking ahead, anyone would’ve known the ship was going to sink;” “Everyone knew it was a dangerous, but they didn’t take proper care, that’s ‘callous disregard.’”

In a few cases, mock-jurors asked themselves if malice was an aspect of the defendant’s conduct; six out of twenty, or 30 percent, said this issue played a role in their decision process. Here, since there was no explicit evidence relevant to “ill will or spite” in any of the stimulus case materials, mock-jurors relied on inferences about the defendant’s intent. We could not discern a systematic pattern of reasoning in their responses.

The contents of the mock-jurors’ responses to both the open-ended and element-specific questions were consistent with our summary of the modal decision strategy outlined above. However, only one of the twenty individual mock-jurors fully considered all of the legal elements that were presented in the judge’s instructions as necessary conditions to conclude that the defendant was liable for punitive damages. Thus, the model should be viewed as a framework, with typical jurors instantiating some, but not all, of its components in their individual decision processes.

CONCLUSION

Our goal in this Article has been modest—to provide an illustration of what a computational theory of juror decision making would look like for civil judgments. Our primary assertion is that jurors’ judgments are based on summaries of the evidence structured as chronological narratives, stories that are created as a central part of the decision process. We presented a prima facie case for the validity of this application of the Story Model in the form of empirical observations from a study of mock-juror decisions on liability for punitive damages. While our example focused on the judgment of liability for punitive damages, we believe that the Story Model is a useful prototype of a general model for juror decision making in all civil cases.
### APPENDIX A: TABLE
SUMMARY OF FINDINGS OF THE EMPIRICAL STUDY OF LIABILITY JUDGMENT PROCESSES

<table>
<thead>
<tr>
<th>PROPORTIONS OF MOCK-JURORS (OUT OF 20) CLASSIFIED BY THEIR GLOBAL DECISION STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation-based Decision Process</td>
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<tr>
<td>Elements-to-Prove Decision Process</td>
</tr>
<tr>
<td>Something Else</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PROPORTIONS OF MOCK-JURORS (OUT OF 20) WHO CONSIDERED EACH ELEMENT CITED IN THE JUDGE’S INSTRUCTIONS ON THE LAW IN THEIR DECISION PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue of causation</td>
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<tr>
<td>Necessity, “but for,” test of causation</td>
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<tr>
<td>Subjective consciousness of particular grave danger</td>
</tr>
<tr>
<td>Particular danger must have eventuated</td>
</tr>
<tr>
<td>Disregarded the risk in deciding how to act</td>
</tr>
<tr>
<td>Conduct involved a gross deviation from the level of care which an ordinary person would have used</td>
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<tr>
<td>Conduct accompanied by ill will or spite</td>
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<tr>
<td>Conduct for the purpose of injuring another</td>
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