ASPIRATIONAL OPTIMISM ABOUT EVIDENCE LAW: AN IMPLICIT THEME OF THE VISIONS OF RATIONALITY SYMPOSIUM

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INTRODUCTION

Are jurors rational decision makers? Can evidence law be changed to improve their decision making? The papers presented at the *Visions of Rationality* conference, and now published in this symposium issue, have something to say on these questions, even when they do not undertake to answer them directly. In fact, while these highly disparate papers concern many other issues, there is a striking degree of consensus about the rationality of jurors and the methodology of evaluating and reforming the law. This Comment summarizes common positions taken by the authors which demonstrate their aspirational optimism about the field of evidence law.

I. TWO VIEWS OF JUROR RATIONALITY: CONDORCET’S “ENLIGHTENED VOTER” OR “THE COGNITIVE MISER”

A. The Juror as Enlightened Voter

An idealized model of the juror as rational decision maker is described in a number of the papers. Here is the juror of our dreams; not a reality we necessarily believe in, but a collection of the attributes of rationality often found in legal, philosophical and psychological literature.

One example of the ideal juror is represented by Condorcet’s “enlightened voter,” discussed by Professor Ronald J. Allen and Sarah A. Jehl in their paper *Burdens of Persuasion in Civil Cases: Algorithms v. Explanations.* According to Allen and Jehl, Condorcet’s enlightened voter is highly educated (thus capable of reasoned thinking), has all information necessary to make a reasoned and informed decision, and is able to enlighten himself “as to the grounds and consequences of the decision proposed” to him. Each voter’s decision is made on the basis of simple (binary) propositions and, I infer from the authors’ discussion, reaches judgments of probable truth. Importantly, each decision must be made independently, free from the influence of a group (of voters or jurors) to which the individual decision maker belongs.


2. *Id.* at 908 (quoting CONDORCET, SELECTED WRITINGS 159 (Keith Michael Baker ed., 1976)). The authors describe the qualities of the enlightened voter at pages 907-911.
Allen and Jehl reject the reality of Condorcet's idealized decision maker. Actual jurors are constrained in their decision making by the adversary system, by the formal structure of trials, by the exclusion of some relevant evidence, and by the requirement of group deliberation. Yet some of the assumptions underlying this idealized model of juror rationality are echoed in other papers.

In *Rationality, Research and Leviathan: Law Enforcement-Sponsored Research and the Criminal Process*, Professor D. Michael Risinger's and Professor Michael J. Saks' discussion of "rationality" embellishes the ideal of Condorcet's enlightened voter. As they describe it, "perfect rationality" means reasoning (consciously proceeding from one thought to another) that is proper, not fallacious. This requires accurate evaluation of the premises required for drawing inferences, and avoidance of operational mistakes. In addition, they say, the problem under investigation "would be infinitely detailed on all levels of abstraction" and "[a]ll things that could bear on a line of reasoning or a problem under investigation would be explicitly stated." Acknowledging that this is an idealized vision, Risinger and Saks assert that the compromises that humans must make to accomplish "attainable functionality" are not irrational. They also give us a description of the "best available" rationality of which humans may be capable, which I will discuss in Part II below.

In his paper *Argumentation Schemes: The Basis of Conditional Relevance*, Professor Douglas Walton develops "the clear and precise model of rational argumentation that underlies the Federal Rules of Evidence." His model of "argumentation schemes" represents a typical form of human reasoning. Such schemes are "presumptive arguments that need to be judged by asking critical questions in a dialogue;" they are defeasible, that is, "subject to defeat as new evidence comes in." Thus while such schemes may look

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3. See id. at 909-911.
4. See id.
6. See id.
7. See id.
8. Id. at 1030.
9. See id. at 1031.
10. See id. at 1030.
12. Id. These argumentation schemes are grounded on inferences which are based on "warrants" or "generalizations." See id. at 1220. The inferences are chained forward to a
like deductive and inductive forms of argument, they have often been ignored or deemed fallacious by logicians because they hold only “tentatively” and may be doubted. Nevertheless, Walton states, “many arguments of this kind are reasonable, under the right conditions.”13 I infer that by “reasonable” Walton means “rational”, and thus his model assumes a rational decision maker who can engage in the pattern of thought represented by his argumentation schemes.

There are other attributes of rationality that Walton must believe decision makers, namely jurors in the context of a trial, are capable of performing. He uses the example of one party’s appeal to a jury to rely on an expert’s opinion.14 This appeal requires an argumentation scheme which, Walton claims, is that type of defeasible argument that must be questioned pursuant to a critical dialogue between the two opposing parties.15 After listening to this dialogue, the rational juror must then evaluate the party’s argument in favor of reliance; the juror must be able to use the information gained from the critical dialogue to evaluate the expert’s credibility, the expert’s field, and the expert’s opinion. This entails the assignment of “plausibility” or probability (probative weight) to the propositions of the argument. “[P]lausibility, or as it was translated from the Greek, ‘probability’ [is] a fundamental notion needed to grasp the kind of reasoning that is so common in evidence law.”16

A more formal ideal of “probabilism”, which Professor Mike Redmayne describes in his paper Rationality, Naturalism and Evidence Law, is the presumption that “the rules of probability theory constitute normative standards for rationality.”17 While he does not define “probabilism” in detail, Redmayne implies that it embraces at least the probability calculus, Bayes’ rule, and the demand that the decision makers have a consistent belief set.18

Conclusion. Under the law of evidence, to be relevant the chain must be aimed toward proving the ultimate probandum in a case. See id. at 1221. Walton discusses the relationship between argumentation schemes and the concept of relevance under the Federal Rules of Evidence. See id. at 1232-36.

13. Id. at 1207.
14. See Walton, supra note 11, at 1207.
15. See id. at 1207-09.
16. Id. at 1221. This brief description cannot do justice to Walton’s detailed analysis of argumentation schemes and the diagramming techniques that he includes. What I hope it shows is that Walton must assume that jurors (and other decision makers) are capable of the form of reasoning that he defines.
17. Mike Redmayne, Rationality, Naturalism, and Evidence Law, 2003 Mich. St. L. Rev. 849. He refers to this standard as the “rules of inductive logic.” Id. at 849.
18. See id. at 866. Walton identifies the probability calculus as one set of rules that can be used to calculate the probative weight of a conclusion after it has been transformed by the addition of new evidence. See Walton, supra note 11, at 1230.
He is quick to acknowledge that humans are most likely not capable of adhering to all of the rules of inductive logic; nevertheless, in his paper Redmayne uses some fundamentals of probabilistic reasoning to test the soundness of some evidence rules.19

B. The Juror as Cognitive Miser

In contrast to the "enlightened voter" or the "perfectly rational" juror is the model of the juror as "cognitive miser" discussed by Professor Gregory Mitchell in his paper *Mapping Evidence Law.*20 The cognitive miser metaphor emerges from a body of behavioral decision research that "compares actual judgment and decision-making behavior to ideal behavior as predicted by norms of rationality."21 As Mitchell describes it, "[t]he overarching claim of this research program is that probability judgments and causal inferences form primarily through non-deliberative thought processes utilizing *cognitive heuristics,* or *mental rules of thumb,* rather than through careful application of the laws of probability, the rules of logic, and scientific rules for hypothesis testing."22 As a result, "people often substitute quick and easy analyses for more difficult and costly ones ... [and] [t]his bias in favor of answering the easier question will ... lead, at times, to error."23 In short, the juror as cognitive miser conserves her "mental resources by use of efficient and effective, but imperfect, mental shortcuts that sometimes cause inferential errors."24

Mitchell identifies three of the cognitive miser model's key empirical claims: that the use of cognitive heuristics leads to systematic bias and error in decision making; that this is a basic feature of human judgment, widely distributed throughout the population; and that in fact the heuristic mode of processing information is the "default" mode and is often quite difficult, if not impossible, to override.25 If jurors are cognitive misers, then their alleged inability to self-correct their cognitive miserliness argues for structural

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21. *Id.* at 1068 n.3. This research program originated, according to Mitchell, in the fields of cognitive and social psychology, and is now joined as well by behavioral and experimental economists. See *id.*
22. *Id.* at 1069 (emphasis added).
23. *Id.* at 1073-74.
24. *Id.* at 1068 n.3.
changes in trial process, or at a minimum in favor of evidence law performing a "debiasing or checking function" on the jury.\textsuperscript{26}

Two other papers discuss additional failings of juror rationality that generate risk of errors. Professors Saks and Risinger point out in their second paper \textit{Baserates, The Presumption of Guilt, Admissibility Rulings, and Erroneous Convictions}, the distorting effects of assumptions that jurors bring to their decision making about the "actual frequencies of positive and negative cases that enter the decision-making system."\textsuperscript{27} Calling these "baserate" assumptions, Saks and Risinger describe how these assumptions can affect many stages of litigation.\textsuperscript{28} With regard to the jury, pre-existing assumptions about a defendant's guilt might affect jury decision making.\textsuperscript{29} Judicial instructions on the presumption of innocence in criminal cases are intended to "replace any baserate assumptions that jurors might have which might draw them toward expectations of guilt" and might thus lower the threshold of evidence they would consider sufficient to convict.\textsuperscript{30} "The instructed standard of proof is a direct attempt to induce the factfinders to set a high decision threshold."\textsuperscript{31}

Saks and Risinger cite research findings which indicate that jurors are able to adopt the presumption as a starting point.\textsuperscript{32} However, some research also shows that they attach very little weight to it inasmuch as "the presumption of innocence was abandoned as soon as the first piece of inculpatory evidence was presented."\textsuperscript{33} Other studies also indicate that when certain types of inculpatory evidence are admitted—for example an expert opinion predicting a defendant's future dangerousness—"there appears to be little that can be done to undermine its impact" including "weak cross-examination, strong cross-examination, and strong cross plus rebuttal expert."\textsuperscript{34} This prematurely unshakeable view of inculpatory evidence may indicate that jurors revert quickly to a reasoning stance affected by a baserate assumption. This could be viewed as cognitive miserliness—leaping to pre-

\begin{itemize}
\item \textsuperscript{26} \textit{Id.} at 1081. Mitchell writes: "[A] fuller adoption of the cognitive miser model would ... likely result in significant changes in the types of proof admitted, the means for admitting proof, the content of presumptions, and the responsibility and deference given to trial judges and juries." \textit{Id.} at 1082.
\item \textsuperscript{28} See \textit{id.} at 1055-63.
\item \textsuperscript{29} See \textit{id.} at 1061-63.
\item \textsuperscript{30} \textit{Id.} at 1061.
\item \textsuperscript{31} \textit{Id.}
\item \textsuperscript{32} See \textit{id.} at 1061-62.
\item \textsuperscript{33} Saks & Risinger, \textit{supra} note 27, at 1052.
\item \textsuperscript{34} \textit{Id.} at 1062.
\end{itemize}
existing conclusions, after all, saves the energy of suspending belief in order to consider the value of evidence in its full light.

In her paper *Heuristics, Biases, and the Importance of Gatekeeping*, Professor Erica Beecher-Monas states that "there is little question that rational choice models of human decisionmaking fail to reflect reality." She discusses several cognitive short-cuts or heuristics that may affect the rational juror and impair judgmental accuracy. Two such heuristics explain the "dilution effect", which occurs "when irrelevant information dilutes relevant information, leading to less accurate judgments than when only relevant information was available." Beecher-Monas also points to an "overconfidence bias" which indicates that people "appear to overestimate their ability to provide correct answers to questions . . . [thus tending to] think that they have better judgment than they do." The implications for jury decision making are significant if this bias is caused by the tendency of people to "selectively focus on evidence that is consistent with their first impression and ignore inconsistent evidence."

Uses of heuristics and biases by individual decision makers are one source of error. Also of great significance are the dynamics of group decision making which affect the rationality of jurors. Beecher-Monas cites research which may show that "[c]omplex decisions are not necessarily improved by group processes" and that when "individuals in a group share a particular bias, group processes tend to magnify its effect."

C. Conclusion: Will the Real Juror Please Stand Up?

None of these authors subscribe to the idealized model of the "enlightened" or "perfectly rational" juror. They believe that strict adherence

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36. See id. at 994-99.
37. Id. at 1003. She discusses these heuristics in detail on pages 1008-11.
38. Id. at 1007.
39. Id. at 1007-08.
40. Id. at 1008.
41. Beecher-Monas, *supra* note 35, at 1008. Beecher-Monas discusses this "polarization" effect: "In group decisions, although random errors in assessing information tend to cancel each other out, systematic biases may be amplified." Id. at 1009. One result may be "polarization" or the movement "toward an extreme position rather than to the middle of the individually held antecedent positions." Id. at 1010. Interactive group discussion may also heighten a tendency toward cognitive miserliness, similar to that already noted by Saks and Risinger, which is to respond "to information against their position . . . [by increasing] confidence in their decision in a way that is not justified by increased accuracy." Id. at 1013-14.
to the demands of the rules of inductive logic is impossible. Thus it would be naive and unproductive to think and write "as if" perfect compliance were possible.

However, none of the authors appear to accept the "cognitive miser" model at full face value either. While well aware that the cognitive capacities of humans are limited and fallible, many conference participants made clear that they hold a vision of juror rationality that is realistic but still aspirational—to borrow a term from Professor William Twining. This vision represents, I believe, a consensus position implicit at the conference and explicated in the published papers.

II. THE ASPIRATIONAL VISION OF JUROR RATIONALITY

A. The Aspiration to Improve Juror Rationality

The principal assumption of this aspirational vision is that, flawed though it may be, human rationality is not static—it can be improved as judged against the standard of a more ideal model. Several authors explicitly state their belief in the possibility of improvement. They describe how increased rationality can result from: (1) developing certain human reasoning capacities and strategies; and (2) making adjustments in specific contextual processes and structures, such as evidence rules, within which decision making occurs.

First, Professors Risinger and Saks describe a concept of the "best available" rationality in their paper *Rationality, Research and Leviathan: Law Enforcement-Sponsored Research and the Criminal Process*:

So we take veritistic rationality to be a process of reasoning that attempts to be careful, to be mildly skeptical, to be conservative in generalization, to identify premises, to take care to examine the reasons for accepting premises, ... to avoid logical fallacy, and to properly account for probability and indeterminacy. ... [R]ationality may make use of organizing categories, metaphors and heuristics, but it attempts to do so consciously and carefully, aware of their limitations. ... [I]t seems reasonable to believe that, while humans are capable of such rational thought, beyond a certain point it requires effort.  

Basic to their concept is the belief in the possibility of improving the human capacity for this type of reasoning. As Risinger and Saks put it: "We cannot attain rationality, but we can often know that we have improved our position." It is for this reason that their vision is aspirational. At the same time, they view the adversary system of litigation as inimical to, if not wholly

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42. Professor Twining's use of this term is discussed in Section II B., infra.
43. Risinger & Saks, supra note 5, at 1033.
44. Id.
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destructive of, this type of juror rationality. Thus, at least in this paper, it is the structure of litigation, not human capacity, that may defeat their aspiration.

Professor Mike Redmayne, too, takes an aspirational view of rationality. He states that we can use the model of "probabilism" as the standard of rationality for the law of evidence, even though it is fairly clear that humans cannot fully comply with its rules and standards. We cannot employ evidentiary practices that require reasoning which humans cannot perform, but we can hold the demands of "probabilism" as an ideal "and say that we are more rational the closer we come to it." He justifies this position for two reasons. First, humans can learn and improve—he asserts that "human nature is plastic"—and second, we can try to assist improvement by changing social and institutional arrangements.

Professor Craig Callen also accepts that constraints on human cognition may require abandonment of "ideal" or "formal" models of rationality such as those discussed above. In his paper Rationality and Relevancy: Conditional Relevancy and Constrained Resources, the primary constraints to which he refers are significant limits on people's time, information and cognitive resources. Callen does assert, however, that jurors are capable of what he calls "informal reasoning" which includes strategies of "everyday problem-solving experience." He also offers an aspirational definition of juror rationality: doing the best one can to maximize benefits from decisions (presumably getting them right) in relation to what one believes is the appropriate expenditure of resources (including cognitive resources of thinking about, organizing and evaluating data). Thus, it is rational for jurors to use strategies that conserve their resources but still aim at accurate decision making. For example, to deal with the problem of "cognitive overload"—being flooded with information of minimal relevancy—Callen identifies the maximizing strategy of allocating limited resources most effectively by focusing on data of higher value.

Despite her concerns that heuristics sometimes get in the way of optimal decision making, Professor Beecher-Monas asserts that "[d]ecisions that are

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45. See Redmayne, supra note 17, at 866-68.
46. See id.
47. Id. at 864.
48. Id. at 863.
50. Id. at 1248.
51. See id. at 1244.
52. See id. at 1264-66.
less than optimal because of satisficing strategies can be improved."53 She lists a number of possible improvements: improving capacity through training in reasoning; procedural strategies that make crucial information more available; adjustments in context by improving presentation of information.54 Beecher-Monas concludes that legal decision making should be structured to minimize those conditions under which heuristics may result in biased, or less than optimal results.55

Finally, Professor Mitchell explicitly rejects the validity of any strong claim that jurors are cognitive misers.56 He asserts that the quality of human reasoning is the product of contextual interaction among individual, situational and task characteristics of decision makers.57 Thus, human tendencies toward cognitive miserliness can be counteracted and reasoning can be improved. Importantly, he notes that there are individual variations in what is called "cognitive disposition," a term which "refers to the more flexible and malleable aspects of cognition . . . [such as] the disposition to weigh the opinions of others . . . and the [less miserly] amount of time and effort expended."58 He posits that people with the disposition to engage in active, open-minded thinking, and to consider new evidence and opposing arguments, may avoid cognitive bias and error. Mitchell also discusses specific contextual and structural factors, such as group deliberation and accountability, and strength of the evidence, that can moderate the influence of an individual's miserliness. Additionally, he cites research which suggests that adversarial procedures, such as encouraging decision makers to consider opposing arguments and alternative solutions, are perhaps the most successful debiasing procedures.

In articulating a vision of juror rationality that is both realistic and capable of improvement, the authors in this symposium appear to be within a tradition that has long been dominant in evidence law. The aspirational nature of this tradition has previously been described by Professor William Twining.

53. Beecher-Monas, supra note 35, at 999. She identifies these "satisficing strategies" as cognitive short-cuts that people adopt to solve complex problems with limited resources. See id.

54. See id. at 999-1000.

55. See id.

56. See Mitchell, supra note 20, at 1086. As discussed above, the strong form of the cognitive miser model posits that systematic bias and error will infect all legal judgments. Mitchell asserts that this claim is not justified by the current state of empirical research, and he backs up this assertion by critiquing the normative, methodological and empirical limitations of the research upon which the cognitive miser model is based.

57. See id. at 1086-87.

58. Id. at 1116.
B. Aspirational Rationalism According to Professor William Twining

In his book *Rethinking Evidence*,

Professor Twining identifies a tradition of thinking about juror rationality which, he asserts, has been shared by the dominant Anglo-American academic writers in the field of evidence for over two hundred years. He calls this the "rationalist tradition" and uses the term *aspirational rationalism* to describe its vision of rationality as critical, rather than complacent: "The claim that the modern system of adjudication is 'rational' is a statement of what is considered to be a feasible aspiration of the system" which is not always realized in practice. Twining observes that, because the primary audience for academic writers on evidence law has been the actual participants in the legal process, the "'rational' approach to evidence does not postulate a set of impossible ideals. . . . [It] articulate[s] some of the standard working assumptions of an intellectual tradition . . . strongly oriented to the needs, attitudes and views of practising lawyers and judges." It is also part of the aspirational tradition to test evidence law by a standard of feasible jury reasoning and "to criticize existing practices . . . in terms of their failure to satisfy the standards of this aspirational model." The authors in this symposium appear to share this

60. The assumptions about how fact finders should reason are described by Twining in terms similar to the aspirational vision of rationality just described in Part II A: Decisions reached by fact finders are typically judgments of probabilities, falling short of absolute certainty. Judgments of probabilities can be reached by reasoning from relevant evidence, characteristically by induction. Generally, these judgments have to be based on the decision makers' "available stock of knowledge about the common course of events," sometimes supplemented by specialized or expert knowledge when it is available. Id. at 73 table 1, Model II, ¶ 6.
61. Id. at 74. "[I]t does not necessarily involve commitment to the view that this aspiration is always, generally, or even sometimes realized in practice." Id. at 74.
62. Id. at 97.
63. Id. at 75. Here Twining contrasts this critical stance of aspirational rationalism with complacent rationalism, by which he means an attitude of greater satisfaction with the way the system of fact finding is designed and actually operates. Twining states some limits on the ideal model of jury rationality that are widely acknowledged by aspirational rationalists. See TWINING, supra note 59, at 137 n.36. See also Michael L. Seigel, A Pragmatic Critique of Modern Evidence Scholarship, 88 NW. U. L. REV. 995, 1001 (1994) ("[A]lthough most evidence scholars have criticized the doctrinal configuration of their day, they have aspired to rationalism, and they have been optimistic about the feasibility of achieving this goal.") Seigel's critique of this rationalist tradition is discussed in notes 83, 143 and 148, infra.
position as well.\textsuperscript{64} If human rationality can be improved by changes in human capacity, contextual factors and structures, evidence law reform can work some of these improvements.

III. THE (CAUTIOUS) OPTIMISM OF EVIDENCE LAW REFORM

In addressing the subject of evidence law reform, many of the papers published here use empirical research and our more general understanding of human reasoning to identify both specific problems with juror decision making and appropriate solutions for these problems. The authors share a sense of optimism that we can actually determine what the weaknesses in jury rationality are, and can do so in terms specific enough to devise rules that will counteract them. While this sense of optimism is the second consensus position that I found in this symposium,\textsuperscript{65} several papers are also cautious both about what empirical research has to tell us, and how confident we can be in proposing reform.

A. Evidence Rules That Limit the Flow of Information to the Jury

Seven papers focus on specific evidence rules that limit the flow of relevant information to the jury.\textsuperscript{66} Thus, these rules appear to constrain juror rationality, although of course they may be grounded on values extrinsic to jurors' ability to make rational decisions. Such extrinsic values are not the focus of these seven papers; rather, the authors examine whether rules excluding relevant information can be justified because they prevent even greater juror irrationality. The authors use empirical studies and general

\textsuperscript{64} It is possible that Professor Allen does not. See text at note 133, infra. He appears to be more interested simply in letting jurors do what they do naturally, rather than in improving their decision making pursuant to a model of what they should do. See infra Section III A.4.b. In other work, Allen acknowledges the system's commitment to rationality and describes juror rationality in a way that is consistent with the aspirational vision, emphasizing consistency, uniformity, coherence, simplicity and economy. See Ronald J. Allen, Factual Ambiguity and a Theory of Evidence, 88 NW. U. L. REV. 604, 628-29 (1994) (citing NICHOLAS RESCHER, RATIONALITY: A PHILOSOPHICAL INQUIRY INTO THE NATURE AND THE RATIONALE OF REASON 16-18 (1988)).

\textsuperscript{65} Twining's use of the term optimistic rationalism is somewhat different. For Twining, the term evokes a judgment that by reforming evidence law the prescriptive standards of aspirational rationalism can, in practice, be attained or approximated. See TWINING, supra note 59, at 75. I add to this an optimism about relying on tools of research and analysis that make such an accomplishment possible.

\textsuperscript{66} See generally Beecher-Monas, supra note 35, Callen, supra note 49, Friedman, infra note 68, Mitchell, supra note 20, Park, infra note 74, Redmayne, supra note 17, Risinger & Saks, supra note 27.
knowledge about juror reasoning both to identify problems and to criticize or endorse particular evidence rules that are either in place or are proposed.\(^6\)

1. *The Problem of Jury Over-Valuation of Evidence*

Professor Richard Friedman, in his paper *Minimizing the Jury Over-Valuation Concern*, identifies a purported problem with juror rationality, namely that the jury will "over-value" some kinds of evidence by giving it too much weight (probative value).\(^6\) While he would admit that "cognitive inadequacies" of the jury may sometimes justify regulation, he argues that fear of over-valuation should *not* be used to justify evidence rules that exclude relevant information from the jury. Why?

Friedman cites three principal reasons.\(^6\) First, although he does not deny the possibility that an over-valuation risk might exist, he says that such tendency to over-value has not been empirically proven. Second, to justify exclusion, the over-valuation would have to be significant, and Friedman expresses doubt that rule-makers and judges are able to "assess with some confidence both the appropriate valuation and the valuation that the jury will accord to the evidence, or at least the ratio of the two."\(^7\) Third, fear of jury over-valuation seems "pernicious" when the jury has been designated the fact-finder by law, and indeed by constitutional right. In addition, Friedman believes that there is a less intrusive remedial measure than exclusion - a judicial instruction calling the jury's attention to the reason why there is a risk of over-valuation.

In his paper, Friedman discusses three exclusionary evidence rules. He contends that the hearsay rule of exclusion, the general ban on the use of character evidence to prove action in conformity therewith, and the use of the *Daubert* hearing (and presumably Rule 403) to exclude expert testimony, are all based in "large part . . . [on] fear that the jury will overvalue the evidence."\(^7\) Of course, other problems with juror reasoning, and other policies and values in evidence law, also justify these three rules. Friedman's goal is to cleanse evidence discourse of the "over-valuation" concern, unless there is "a well demonstrated reason to conclude that the jury is particularly

\(^{67}\) See *TWINING*, supra note 59, at 75.


\(^{69}\) Friedman discusses six reasons which I summarize as three. See *id.* at 969-71.

\(^{70}\) *Id.* at 970.

\(^{71}\) *Id.* at 968.
likely to over-value the particular type of evidence involved, even in the face of judicial commentary.”

Friedman’s paper reflects aspirational optimism. His argument appears to be based on the role assigned to the jury by law. Jurors must be treated “as if” they can adhere to the model of inferential reasoning that the Federal Rules of Evidence assume, at least until a particular weakness is identified and demonstrated. Taking this “as if” position is aspirational; we assume the best until the worst is proved. And Friedman’s assumption that the particular cognitive inadequacy of over-valuation can actually be proved seems premised on an optimistic vision of empirical research that includes both what it can measure and what that measurement can tell us.

2. Caution About Relying on Empirical Psychological Research

One crucial issue is, however, whether empirical researchers are asking the right questions. For example, Friedman asserts that the prevailing reason for the hearsay rule in civil cases is that without the benefit of cross-examination, demeanor and oath, the jury will over-value the evidence. He dismisses this over-valuation concern as lacking empirical foundation, and he refers to studies that do not demonstrate over-valuation and may even suggest under-valuation in some circumstances.

On the other hand, Professor Roger Park points out in his paper, Visions of Applying the Scientific Method to the Hearsay Rule, that juror weighting of hearsay evidence may not be the right question to explore. The important questions for Park are how reliable is hearsay and how well do jurors discern the difference between truthful hearsay declarants and lying or mistaken declarants. Viewing the trial as a search for truth, as Park does, the jury’s ability to differentiate accurate from inaccurate hearsay is the crux of the matter. Moreover, few experiments—perhaps none—have sought to examine the effect on the jury of the lack of cross-examination of the hearsay declarant. It is this lack which Park considers to be the crucial distinction between hearsay and live witness testimony. This is because, Park asserts, the

72. Id. at 971. He suggests that “[i]n some settings, where the cognitive inadequacy argument now causes the exclusion of evidence, we might instead articulate other grounds for exclusion. In some other settings we might instead decide that the best result is admission of the evidence.” Id. at 967.
73. See Friedman, supra note 68, at 975-77.
75. “The important question of legal policy is whether hearsay evidence helps or hurts the quest for accurate verdicts.” Id. at 1167.
76. See id. at 1159-61, 1166-67.
principal contribution of cross-examination is to introduce new facts about the declarant which will enable the jury to better evaluate the probative weight of what the declarant has said.\textsuperscript{77}

Park points out that the research design for an experiment that compares a live, cross-examined witness with an uncross-examined hearsay declarant would be exceedingly complex.\textsuperscript{78} This complexity makes him "pessimistic about the future of hearsay research."\textsuperscript{79} Yet he also sounds optimistic in suggesting a research agenda modeled on work done on eyewitness identification. Such research would investigate particular hearsay dangers in specific situations and the specific precautions that might be undertaken to reduce those dangers.

Of course, this research agenda might produce results quite inimical to some current categorical hearsay exceptions, such as, for example, excited utterances, dying declarations, even statements against interest. But would we really eliminate or modify these exceptions based on psychological studies? Park attributes to Robert Maynard Hutchins the conclusion that "psychology could tell us that spontaneous exclamations were not accurate, but it could not tell us whether they should be excluded."\textsuperscript{80} Park cautions against looking for definitive answers from psychological research.

Professor Mitchell outlines specific questions that legal scholars should address before applying the results of empirical studies that show error or bias in judgment.\textsuperscript{81} In doing so, he urges legal consumers of experimental psychology to view with skepticism what he calls "sweeping speculations..."

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{77} See id. at 1160. Park's theory of the value of cross-examination supports my view that Friedman errs in asserting that fear of jury over-valuation is a principal justification given for the hearsay rule of exclusion. Because the hearsay declarant is not in the courtroom, under oath, and subject to cross-examination, there is less information for any fact-finder - whether judge or juror - to use to evaluate the declarant's testimonial qualities. This lack of information creates a risk of mis-evaluation and of loss of accuracy, whether it be over-or-under-valuation; and if hearsay is used strategically by the proponent, the risk falls unfairly on the opponent. Cross-examination of a live witness provides the opponent with the opportunity, at least, to bring forth additional information (Park's "new facts") that will improve the fact-finder's decision. Thus, the hearsay rule need not be viewed as implying a cognitive weakness in jurors, but rather as acknowledging an informational deficiency that affects even the ablest of decision makers. See Eleanor Swift, \textit{A Foundation Fact Approach to Hearsay}, 75 CAL. L. REV. 1339, 1361-67 (1987).
\item \textsuperscript{78} See Park, \textit{supra} note 74, at 1167-68.
\item \textsuperscript{79} Id. at 1168.
\item \textsuperscript{80} Id. at 1151. Professor Mitchell cites Professor Samuel Issacharoff on the same point: Empirical findings can only \textit{inform} normative conclusions, not \textit{determine} them. Mitchell, \textit{supra} note 20, at 68 (citing Samuel Issacharoff, \textit{The Difficult Path from Observation to Prescription}, 77 N.Y.U. L. REV. 36, 46 (2002)).
\item \textsuperscript{81} See Mitchell, \textit{supra} note 20, at 1126-33.
\end{enumerate}
\end{footnotesize}
posing as empirical statements about the rationality or irrationality of judges and juries.\textsuperscript{82} Mitchell's goal is to reorient empirical researchers on rationality toward asking "what contexts foster good and bad reasoning" so that the research results may eventually be applied more realistically.\textsuperscript{83}

3. The Problem of Cognitive Overload

The papers by Professor Callen and Professor Redmayne evaluate very specific Federal Rules of Evidence that, in order to simplify the jury's job, may restrict the jury's use of specific items of evidence. These rules do so by requiring a level of certainty about predicate facts that is greater than the minimal standard of relevancy. Both authors offer justifications for this control on juror reasoning by arguing that without such control, jurors might be asked "to do things which they cannot easily do."\textsuperscript{84}

In his paper, Professor Callen discusses Rule 104(b) and its specific applications in Rules 602 and 901. These rules all require the proffering party to offer evidence \textit{sufficient to support a finding} on those predicate facts that determine the relevancy of the offered item of evidence. To justify this rule, Callen identifies a reasoning problem that he calls "cognitive overload."\textsuperscript{85} Contending that jurors' cognitive resources are limited, he asserts that the admission of nothing but minimally relevant evidence forces jurors to sort through "information that is not sufficiently useful to justify expending the resources needed to evaluate it"\textsuperscript{86} and thus makes their job more difficult. He cites empirical research that has identified two potentially risky cognitive strategies that jurors may use if judges adhere rigorously to the model of admitting all minimally relevant evidence. Both of these strategies may generate a risk of juror confusion about the probative value of certain types of minimally relevant evidence. This confusion may cause jurors to overvalue, or ignore the risks of, this evidence, or to alter their understanding of the applicable law.\textsuperscript{87}

\textsuperscript{82} Id. at 1148.

\textsuperscript{83} Id. at 1147. The work of both Park and Mitchell reflect the concern voiced by Professor Seigel that the rationalist tradition in evidence scholarship has become too enamored with using social science research to set the agenda of evidence law reform. See Seigel, supra note 63, at 1032-1044. Seigel concludes his thorough discussion of the problems with over-reliance on social science research with the warning that "evidence scholars should employ it with a full understanding of its limitations and potential for abuse." Id. at 1044.

\textsuperscript{84} Redmayne, supra note 17, at 867.

\textsuperscript{85} See Callen, supra note 49, at 1262.

\textsuperscript{86} Id. at 1270.

\textsuperscript{87} See id. at 1269-70. Callen discusses these two cognitive strategies, and implications for juror evaluation of minimally relevant evidence. See id. at 1271-78.
Callen uses his risk assessment to evaluate and, in the end, justify Rule 104(b) (and implicitly Rules 602 and 901) which he concedes have caused much controversy within the academic evidence community. In Callen’s view, if the proffering party complies with Rule 104(b) and produces more information about particular items of minimally relevant evidence, then the probative value of these items is justifiably raised (assuming no contrary evidence) and the risks Callen identifies are avoided. Callen views Rule 104(b) (and Rules 602 and 901) as “giving proffering parties incentives to provide additional information [about relevant items of evidence] that may ensure that the value of the proffered evidence is sufficient to warrant the effort to evaluate it, or reduce the cognitive costs associated with the evidence.” This, he claims, makes the jurors’ job easier. It is important to note, however, that simplification does result in the loss of (minimally) relevant evidence.

Professor Redmayne also discusses a rule that imposes a higher standard of certainty both on the proffering party (in this instance only the prosecution) and on the jury. Pursuant to recent legislation, a jury (in England and Wales) may draw a negative inference when a defendant does not mention facts during a police interview that the defendant later relies on at trial. When there are alternative “innocent” explanations for this “silence,” the jury’s evaluation of the defendant’s conduct is more complicated. By force of an appellate ruling, the jury must now be instructed that “it can only draw an inference [from silence] adverse to the defendant if it is satisfied that the only explanation for the failure to mention the fact at the interview is that he [or she] fabricated the fact later or did not want it exposed.” Redmayne states that “satisfied” is a strong requirement, usually meaning “sure beyond reasonable doubt.” In practice, this means that the prosecution bears the burden of persuading the jury that the defendant’s alleged “innocent”

88. Id. at 1270. Professor Walton would agree, I think. He states that “conditional relevance leads to . . . a dialogue between the judge and the claimant on where the claimant’s argument is going. . . . [It] has a legitimate function . . . for guiding judgments of relevance in dynamic argumentation.” Walton, supra note 11, at 1235.

89. Rule 104(b) increases not only the parties’ burden of producing information, but also the standard of certainty imposed on the jury. There is no doubt that the judge may, and in some cases should, specifically instruct the jury that it may not consider an offered item of evidence until it has decided, by a preponderance of the evidence, that the Rule 104(b) predicate fact is true. See Callen, supra note 49, at 1280-82. Requiring this higher standard of certainty requires contingent fact finding, introduces a risk of juror confusion in following the instruction, and may cause the jury to disregard relevant evidence.

90. See Redmayne, supra note 17, at 869.

91. Id. at 870 (emphasis added).

92. Id.
alternative explanations are not credible and that its "guilty" explanation is overwhelmingly probable.  

Like Rule 104(b), this requirement departs from an ideal model of rationality by requiring greater certainty about a predicate fact, in this case certainty well beyond simply a belief in the lesser plausibility of an innocent explanation, before the jury may use a relevant fact. Thus, according to Redmayne, it "conflicts with probabilism;" indeed, he calls this instruction "illogical." If conformity with probabilism is the normative standard for testing evidence rules, then this requirement should be eliminated, again putting aside other extrinsic values.

However, Redmayne's evaluation does not end with finding a conflict with probabilism. "[T]he correct approach here is . . . not to jump to conclusions. We have to think carefully whether there might be good reasons for a jury instruction about inferences from silence that conflicts with probabilism." One justification for the required instruction could be the assumption that the jury may "give too much weight" to the inference from silence. The requirement of first being satisfied that there is no innocent explanation surely limits the jury's opportunity to do that, but like Professor Friedman, Redmayne has doubts about fearing over-valuation. He challenges that empirical assumption: What grounds do we have for thinking that the jury overweights a defendant's silence? Empirical studies might be useful, but none exist. Moreover, he asks, how would we know exactly what weight is too much or too little?

Rather than appealing to unproven fears about over-valuation, Redmayne examines what seem to be ordinary reasoning processes to see whether the requirement's departure from probabilism can be justified. He cites the debate about whether belief is categorical or probabilistic; and he offers the insight that courts often describe juror fact finding as categorical. If jurors reason categorically, then they might find it easier to decide "categorically" whether guilt is the reason for the defendant's silence, rather

93. This instruction is obviously intended to protect the defendant. Redmayne asserts that this instruction makes "it very difficult to draw adverse inferences from silence." Id. It thus may threaten the purposes of the underlying legislation.
94. Id.
95. See id. at 871.
96. Redmayne, supra note 17, at 871. His general evaluative approach is described on pages 871-77, and justified on pages 866-69.
97. Id. at 871.
98. See id. at 872. Another possible justification is that the "satisfied" requirement directs the jury to think more carefully about the defendant's "innocent" explanations. But a judicial instruction to the jury to "think carefully" would, Redmayne contends, be less intrusive.
99. See id. at 873-74.
than "how much more consistent [silence is] with guilt . . . than with innocence."\textsuperscript{100} The requirement of "satisfaction" seems to demand the categorical belief that guilt is the reason. Therefore, it may simplify things for the jury, particularly since the guilty inference is not central to the trial but is only a step in a more complex inferential chain. Redmayne's principle seems to be that of avoiding a form of cognitive overload: "In order to simplify things, we make categorical judgments about certain facts which play foundational roles in chains of inference, but with some more important pieces of evidence, the effort of making probabilistic assessments is deemed worthwhile."\textsuperscript{101}

Callen's and Redmayne's views are similar insofar as they might justify rules which reduce or simplify the jury's information-processing task. Redmayne however expresses caution: "[I]t is hard to be completely confident in this conclusion . . . [partly because of] our limited knowledge of the ways in which fact-finders reason about evidence."\textsuperscript{102}

4. The Problem of Expert Scientific Testimony

Several papers focus on particular problems that scientific testimony poses for juror rationality. They argue that judicial control of admissibility, which again limits the flow of relevant information to the jury, is justified because it reduces the risk of irrational results.

a. Judicial Screening of the Admissibility of Scientific Testimony

In their papers, Professor Beecher-Monas and Professors Saks and Risinger endorse the judicial function of screening expert testimony. They rely on empirical research to justify their concerns.

Beecher-Monas advocates that the judicial screening function established in \textit{Daubert v. Merrell Dow Pharmaceuticals, Inc.}\textsuperscript{103} should control the admission of expert testimony about future dangerousness in the sentencing phase of a capital murder case. In this phase, the Federal Rules of Evidence do not apply and the Supreme Court has held that here "jury deliberation is the right phase of the proceeding to sort out good science from

\textsuperscript{100} \textit{Id.} at 874.
\textsuperscript{101} \textit{Id.} at 876.
\textsuperscript{102} Redmayne, \textit{supra} note 17, at 876.
\textsuperscript{103} 509 U.S. 579 (1993).
bad.” Daubert, of course, requires that the trial judge screen the expert’s particular scientific hypothesis prior to jury consideration of it. To support her argument in favor of increased judicial control, Beecher-Monas identifies particular risks inherent in jury decision making: the “dilution effect” discussed above, whereby irrelevant information such as unscreened expert testimony dilutes relevant information, leading to less accurate judgments; and amplification of commonly held stereotypes adverse to the defendant through group polarization. Judges, in contrast, benefit from structures which improve their judgment, notably repetitive decision making with feedback, training, and accountability. For this reason, “in the context of sentencing proceedings, the confluence of systematic errors [by the jury] requires that judges carefully screen information that the jury will use to make its collective decision.”

In a brief passage in their paper Baserates, The Presumption of Guilt, Admissibility Rulings, and Erroneous Convictions, Professors Saks and Risinger also suggest that “[t]he most effective cure” for misleading expert testimony, including risks of error caused by unsolved baserate problems, would appear to be judicial exclusion.

Professor Friedman acknowledges that the jury is “vulnerable to persuasion by [expert] evidence that, properly understood, would not have much value,” but, as I have said, he criticizes using the fear of overvaluation by the jury as grounds for excluding it. Instead, he believes that much weak expert evidence can be excluded for other reasons, including because it has “no substantial probative value at all, or too little to warrant the time it would take to present and rebut, or because it is affirmatively misleading.” He calls these grounds “matters of law” for the trial judge, but it seems more likely that judges would rely on Federal Rule of Evidence 403.

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107. Id. at 1009.
109. Friedman, supra note 68, at 982.
110. Id. at 983.
to balance probative value against either waste of time or risk of misleading the jury.\textsuperscript{111}

b. Control Over the Mode of Presenting Scientific Evidence

In comments made during the conference, Professor Saks spoke in favor of judicial control over the mode of presenting scientific data, in particular with regard to DNA evidence. He noted that most cognitive psychologists and legal commentators agree that jurors have trouble integrating information about DNA evidence into their decision making when it is conveyed in the form of the statistical probability of a random match. Saks described himself as an “eternal optimist,” and expressed his belief that the most effective way to package DNA information would be figured out.\textsuperscript{112} Saks concluded that once the most effective presentation mode was determined, evidence rules should require presentation in this format; DNA evidence not presented in this format should be excluded.

Professor Redmayne’s paper, too, discusses the problem of presenting DNA evidence to fact finders. If jurors have difficulty integrating random match probabilities (RMPs) into their decision making, do they give DNA match evidence too much or too little weight? Redmayne asserts that juries presented with very small RMPs “always convict.”\textsuperscript{113} Therefore, in that subset of cases that are otherwise relatively weak (which I take to mean cases including little incriminating evidence other than the DNA match), he thinks that the problem of too much weight may exist. He asks: “How can we explain RMPs to jurors in such a way that they will not overweigh them?”\textsuperscript{114}

The example he presents is a DNA match between crime scene evidence and the criminal defendant that results exclusively from a database search. Thus, there is little, if any, other circumstantial proof of guilt. He

\textsuperscript{111} Federal Rule of Evidence 403 identifies particular dangers that the judge should weigh against the probative value of proffered evidence. The general risk that the jury will “over-value” evidence is not one of these dangers. Thus a judge applying Rule 403 correctly would not be able to use an over-valuation argument to justify exclusion. Misleading the jury is one of the Rule 403 dangers, and Friedman states several times in his paper that a very specific problem of valuing evidence can qualify as “misleading” and can justify exclusion. The line between “over-valuing” and “being mis-led” may be fine, but it exists, and I agree with Friedman that judges should maintain it. See Eleanor Swift, Rival Claims to “Truth,” 49 HASTINGS L.J. 605, 617-18 (1998).

\textsuperscript{112} Professor Mitchell also discusses research which shows that the presentation of statistical information using frequency formats rather than single-event probabilities may improve the jury’s consideration of statistical evidence. See Mitchell, supra note 20, at 58-59.

\textsuperscript{113} See Redmayne, supra note 17, at 879.

\textsuperscript{114} Id. at 880.
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acknowledges that "where selection was via a database, it is important to bring home to the jury that there really is no other evidence against the defendant." One proposal is to "deflate" the RMP; that is, to present altered statistics to the jury that are less probative of guilt than the original RMP calculated on the basis of the database. Proponents of this proposal believe that these altered statistics reflect the actual weakness of the database match and thus increase the accuracy of the information presented to the jury.116

Redmayne ultimately characterizes deflation as "incompatible with probabilism" and "lying to the jury,"117 thus potentially easy to reject. However, he discusses a possible justification for deflation by examining other claims "about how juries are likely to reason."118 In particular, how juries reason about the character of criminal defendants (presumably in ways that predispose them to convict) might justify this intervention.119 Redmayne takes no final position on the question whether deflation can be thus justified, but he clearly points out the recurring problem of the uncertainty of our knowledge about jury reasoning.120 This uncertainty, again, adds a note of caution about defining specific reasoning problems and finding definitive evidence law solutions to them.121

In their paper Rationality, Research and Leviathan: Law Enforcement-Sponsored Research and the Criminal Process, Risinger and Saks endorse judicial control over expert testimony.122 Their subject here is the potential risks in evaluating such testimony when the expert's research is removed from the culture of science and is "exposed to outside adversary pressures."123 Litigation-driven research generates what they call "litigation bias"—that is, an irresistible "urge to win" that threatens to taint the validity of the results.124

115. Id. at 881. He notes the difficulty in making this point to the jury. Revealing the data base search risks prejudicing the jury with the information that, probably for a nefarious reason, the defendant was already on the database. Or, harping on the lack of evidence other than the DNA may risk juror suspicions that, in fact, there is other evidence.

116. See id. at 882 and infra note 121.

117. Id. at 882.

118. Id. at 882.

119. See Redmayne, supra note 17, at 882.

120. See id.

121. Again referring to values extrinsic to rationality, Redmayne notes that there may be other important reasons why we should not to "lie" to juries apart from the effect of the lie on truth-seeking. See id. at 883.

122. See Risinger & Saks, supra note 5.

123. Id. at 1038.

124. See id. at 1040. In this paper, Saks and Risinger present the most pessimistic vision of the possibility for rationality in juror decision making. They base this pessimism not on the incapacities of jurors but on the pernicious effect of the partisan adversary system. See id. at 1034-35.
They focus in particular on law enforcement-sponsored research into “the reliability of prosecution-proffered expert evidence in criminal cases.” They describe various strategies used to exaggerate positive results and to insure that negative results will be glossed over. They conclude: “[L]aw enforcement-sponsored research should be approached with caution by anyone interested in maximizing the rationality of the results of criminal prosecutions.”

Uncovering these tactical research strategies is crucial for purposes of enlightening the scientific community and influencing judicial evaluations pursuant to Daubert. Risinger and Saks would support the use of the Daubert hearing to educate the judge about weaknesses in law-enforcement sponsored research, and to develop effective means of presenting these risks to the jury. However, they have also cited some studies showing that the traditional means of challenging expert testimony may not be as effective as the law assumes. Risinger and Saks agree that judges need to be mindful of this problem with jury reasoning when deciding whether to admit or exclude expert testimony that is potentially highly misleading.

B. Instructing the Jury on the Civil Persuasion Burden

Professor Allen and Sarah Jehl discuss the standard instruction given in civil cases that is grounded on the preponderance standard of the civil persuasion burden. Juries are instructed “that plaintiffs must prove each essential element to a preponderance of the evidence, which is understood to mean greater than a .5 probability.” They discuss how this instruction conflicts with the requirements of probability because it does not require a greater than .5 probability “of the conjunction of all the necessary elements.” Thus, they assert, it will likely result in many errors against deserving defendants, thus raising what is called the “conjunction paradox” in academic evidence literature.

Allen and Jehl are not critical of the standard instruction because it conflicts with probabilism. Indeed, they reject probabilism as an ideal or a

125. Id. at 1040.
126. See id. at 1042-1043.
127. See Risinger & Saks, supra note 5, at 1050.
128. See Saks & Risinger, supra note 27, at 1060.
129. See Allen & Jehl, supra note 1.
130. Id. at 895.
131. Id.
132. See id.
feasible model for jury decision making or as a basis for evaluating evidence law. Rather, their contention is, as Professor Allen has previously stated in other articles, that the standard instruction on deciding each essential element conflicts with the way jurors actually make their decision in civil cases.

It is their claim that:

Trials are not structured to litigate the probability of elements and their negations; they are structured to permit choices over the hypotheses advanced by the parties. . . . The formalities of trial practice and the pragmatics of natural reasoning processes . . . converge to reduce the dispute at trial to the choice over alternative competing stories.

The reasoning task for the jurors is to determine "whether the plaintiff's story is more plausible than the defendant's," a concept of the jury's role that eliminates the conjunction paradox.

Allen and Jehl derive this model, which they call the "relative plausibility theory," not from a pre-existing theory but from how the trial process actually operates. They believe that this mode of jury decision making serves the primary goal of accurate outcomes and they believe that jurors have the capacity to reason in this way: "The relatively primitive notion of deciding the relative plausibility of human affairs . . . captures precisely what humans do, and for which there is substantial evidence to believe they do it well." Thus, it can be said that Allen and Jehl, too, assert their own vision of juror rationality.

But do they share the aspirational optimism of other authors for reforming evidence law to promote their vision? In a separate publication, Professor Allen and Professor Brian Leiter do discuss tenets of existing evidence law which they assert are consistent with the relative plausibility theory, primarily with regard to ensuring the completeness of information that gets to the jury in conventional story form. Whether Allen and Jehl (and

133. Id. at 934-36. "[C]onceptualizing the proof process at trial as proving elements or their negation has no plausible, truth conducive, operationalization in the standard conceptions of probability." Id. at 936.
134. See Allen & Jehl, supra note 1, at 936.
135. Id. at 936-37.
136. Id. at 938.
137. Id. They acknowledge that the relative plausibility theory is not consistent with the standard instruction on deciding each essential element in civil cases, which "does discount the significance of . . . [these] instructions, and is a weakness in the theory." Id.
138. See id. at 937.
139. Allen & Jehl, supra note 1, at 943.
Leiter) would use their relative plausibility theory as a standard to suggest reform of evidence law, however, is uncertain. For Allen and Leiter, at least, evaluating evidence rules is an essentially empirical question. They assert that first we have to find out what fact finders are like; then, given what they are like, ask (and find out) whether particular evidence rules increase the likelihood that fact finders will achieve knowledge about disputed facts. Allen and Leiter do seem to be aspirational, optimistic and ambitious about this project: "[T]his is the question all evidence scholarship should be asking." Allen and Jehl also state that the relative plausibility theory generates readily testable hypotheses about trial decision making, and they indicate that cognitive scientists are already conducting research that will add to it. However, Allen and Leiter also express caution about wholesale acceptance of experimental results in their search for "what jurors are like." They adopt criteria propounded by Professor Olin Guy Wellborn III to evaluate the utility of empirical data, a cautious approach quite similar to that advocated in this symposium by Professors Mitchell and Park.

CONCLUSION: BUSY SAILORS ON NEURATH'S BOAT

The aspirational vision of juror rationality found in this symposium, combined with cautious optimism about our ability to identify juror weaknesses and resolve them, is striking. Ask lay people, even ask law school faculty outside the field of evidence, whether juries are rational. The answer will often be "of course not." Yet we within the field seem to assume that

141. What they reject is the use of formal theories (such as probabilism) to project what jurors should be like in order to evaluate evidence rules. But if they really believe that what jurors are like is captured by the relative plausibility theory, then why would they not want to change evidence law to better facilitate the operation of that theory? Professor Allen has made some preliminary comments about how applying the relative plausibility theory might affect the structure of trial and the nature of proof. See Ronald J. Allen, A Reconceptualization of Civil Trials, 66 B.U. L. Rev. 401, 428-31 (1986).

142. See Allen & Leiter, supra note 140, at 1537.

143. Id. at 1537. But see Seigel, supra note 63, at 1043-1044 ("Unwarranted faith in the efficacy of social science evidence can . . . lead to an extremely conservative attitude toward doctrinal reform . . . some evidence scholars have argued that reform should not be undertaken unless it is fully supported by empirical study.").

144. See Allen & Jehl, supra note 1, at 942-43.

145. See Allen & Leiter, supra note 140, at 1541 (citing Olin Guy Wellborn III, Demeanor, 76 CORNELL L. REV. 1075, 1079 (1991)). These criteria are context (availability of other evidence), cross-examination (used to elicit the pertinent information from witnesses), deliberation (rather than individual decision making by the subjects) and preparation (of the witnesses). See id.
they are, or at least can be. Do we know more, or less, than our colleagues and fellow citizens?

There is significant empirical literature on juries to bolster the idea that their outcomes, if not every step in their reasoning process, are rational.\textsuperscript{146} Professors Mitchell and Park advise caution in using negative results about jury rationality reached by programs of empirical research that are divorced from the context of trial. Speaking for myself, over the years of teaching evidence I have routinely heard stories of juror rationality from students and friends who have sat on juries that serve as counterweight to those stories of juror irrationality which reach the press.

Still, the aspirational and cautious optimism of our profession may be rooted less in actual knowledge and belief than in the needs of our role. Is it a requirement of our role to act \textit{as if} we are cautiously optimistic about improving the rationality of juror decision making through evidence law?\textsuperscript{147} If so, does this role definition cloud our thinking in a way that is harmful to our enterprise?

I would tentatively answer “yes” and “no” to these two questions.\textsuperscript{148} Yes, we have chosen a role of studying and writing about a system of law that we know is unlikely to change radically. This system limits its own possibilities for restructuring and reform because of its deep commitments to adversary control and to litigants’ right to use juries as fact finders. At the

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146. \textit{See, e.g.}, HARRY KALVEN, JR. \& HANS ZEISEL, THE AMERICAN JURY (1966); Nancy Pennington \& Reid Hastie, \textit{A Cognitive Theory of Juror Decision Making: The Story Model}, 13 CARDOZO L. REV. 519 (1991). Professor Mitchell also observes that “trial simulations and studies of real cases consistently find that strength of evidence is the best predictor of trial outcomes, which suggests that on average the adversarial trial system works as designed.” Mitchell, \textit{supra} note 20, at 1146.

147. Twining identifies this \textit{as if} posture as role-related which, for some evidence scholars, may separate personal belief from professional convention. “Thus a scholar in the Rationalist Tradition . . . might be a genuine philosophical sceptic (about knowledge or rationality or ethics or all three) and yet, \textit{in order to participate in legal processes}, adopts unsceptical premises as pragmatic working hypotheses.” TWNING, \textit{supra} note 59, at 98 (emphasis added).

148. I say this mindful of Professor Seigel’s concern that a foundationalist theory of rationalism in evidence law has significantly weakened evidence scholarship. See Seigel, \textit{supra} note 63, at 1001-1015. Seigel’s critique focuses on what he calls “the belief that the overarching function of evidence law is to maximize the . . . probability that factfinders . . . will accurately determine objective historical truth.” \textit{Id.} at 996. The authors here share Seigel’s understanding that our system’s goal of truth attainment is deeply complicated by other, often competing values. The commitment at this conference and symposium was not to discuss “rivals to truth,” see Symposium, \textit{Truth & Its Rivals: Evidence Reform and the Goals of Evidence Law}, 49 Hastings L.J. 289 (1997-1998), but to increase our understanding of what kind of rationality humans are, or may be, capable of, and how this understanding may influence evidence law. I explain my view of this academic stance in the text below.
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same time, we have also been trained to care deeply about the "truth value" of trials. Thus, we work on ways to improve the law of evidence in order to bring the goal of truth closer to realization, even when we acknowledge the doubts we have about this possibility. We also train our students to make rational arguments about evidence to judges and juries, and I think we do this because we believe that well-trained advocates can make a difference in juror rationality too. To justify our work, we have an incentive to be cautiously optimistic.

Or, to borrow and then paraphrase a metaphor used in Professor Redmayne’s paper, our role makes us busy sailors afloat on Neurath's boat. We begin our reasoning about evidence law with the inherited assumptions of the Rationalist Tradition. We tentatively believe them, but also believe that some may be wrong or subject to criticism based on other goals of our litigation system. We try to understand, clarify and improve the system from within; that is, by examining and replacing the planks on the boat that keeps us afloat. While we may be able to replace those planks individually—and none are infallible—we will not give them all up while we are standing on them. Like many other edifices of the common law, therefore, it is easy to imagine our boat as the “grotesque” and “misshapen” structure envisioned by Justice Jackson.

But does this role commitment to our enterprise make us less skeptical of evidence law than we should be? I would say “no.” Professor Twining argues that the aspirational nature of the Rationalist Tradition makes it flexible and resilient enough to embrace much skepticism and much critique. The empirical work on juror decision making being done by (and sometimes with) other disciplines can be highly skeptical and critical, and it is taken very seriously by the authors in this symposium. It is possible that this empirical work will raise serious questions about the most foundational planks in our boat. At the same time, there are important methodological issues in conducting and using this empirical research that make us appropriately cautious before we replace those planks.

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149. In Redmayne’s discussion of the metaphor of Neurath’s boat he refers to work by Professor Brian Leiter and includes a quotation from Professor W.V.O. Quine. See Redmayne, supra note 17, at 856-57. I hope that I do not misuse the metaphor.

150. I wonder whether Professor Mirjan Damaska would think that while our boat is afloat, it is also adrift.

151. In Michelson v. United States, 335 U.S. 469, 486 (1948), Justice Jackson’s familiar words are: “To pull one misshapen stone out of the grotesque structure is more likely simply to upset its present balance between adverse interests than to establish a rational edifice.”

152. See Twining, supra note 59.
Thus there is good reason not to be pessimistic about our own optimism. An increasing interest in theories of rationality and in the serious study of jury decision making, as well as an impressive ability in using both, are revealed in this symposium. The field of evidence law is strengthening itself and, eventually, its greater project which is our litigation system.