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## HOW PSYCHOLOGICAL ASSUMPTIONS PERMEATE LAW

**“PSYCHOLOGY IS ABOUT** understanding human behavior. Law is about regulating human behavior. You would think that they would have a lot to say to each other.” This is how Barbara Spellman begins her signature course, Behavioral Decisionmaking and Law. She lectures about a wide range of topics from the behavioral sciences and has students participate in classic experiments, discussions, and negotiations that highlight how people, including the students themselves, might not always make optimal decisions. These insights are then applied to the content and practice of law. With a J.D., a Ph.D. in cognitive psychology, and past experience in a law firm and as a full-time psychology professor, Spellman has the rare ability to bring law and psychology together in both her teaching and her scholarship.

### I. THE ROAD TO LAW AND PSYCHOLOGY

Spellman did not begin her career intending to unite law and psychology; in fact, she started out wanting to keep the two of them far apart. She received a B.A. from Wesleyan University in 1979 with a major that today would be called cognitive science (a mix of psychology, philosophy, computer science, linguistics, anthropology, and neuroscience). After receiving a J.D. from New York University in 1982, she spent five years in New York City as an associate at Chadborne & Parke and an editor at Matthew Bender. Then she changed location and direction, and enrolled in a Ph.D. program in cognitive psychology at the University of California, Los Angeles.

“The practice of law was not a good fit for me,” she said. “I sometimes say that in legal practice, you are given a fixed set of facts, a preferred outcome, and a deadline. In science, I got to choose my own research problems, find whatever answers were out there, and decide for myself when it was time to move on.”

When Spellman began graduate school, many people suggested that she do research in the field called “psychology and law.” But she wanted a total change and, except for being a teaching assistant for the Psychology and Law lecture class, she avoided law completely. Within cognitive psychology, Spellman specialized in research on memory and reasoning. Ironically, those topics led her back to law.

### **Analogy**

Spellman’s earliest research was on analogical reasoning. Her first empirical paper, “If Saddam is Hitler then Who is George Bush: Analogical Mapping between Systems of Social Roles” (with Keith J. Holyoak), 62 *J. Personality & Soc. Psychol.* 913 (1992) uses surveys, experiments, and computational modeling to look at the many factors that affect when people will view an analogy as apt.

“We know that the analogies people choose to use in a situation may reveal their beliefs about what should occur next and may affect other peoples’ judgments and actions,” she said. “For example, for a long time, whenever the United States considered taking military action, people for intervention would argue that the situation was like World War II and people against intervention would argue that it was like Vietnam. In 1991, some analysts liked to analogize Saddam Hussein and his invasion of Kuwait to Hitler at the beginning of World War II. If you bought that analogy, you would be likely to want to go to war against Iraq.”

The paper shows how small changes in someone’s knowledge of the events leading to World War II could affect how they constructed the analogy, but only in systematic ways. Emphasizing the role that the U.S. played in supplying troops and materiel led people to analogize the U.S. of 1991 to the U.S. of 1941, and President Bush to FDR. However, emphasizing that the U.S. did not enter World War II until after Pearl Harbor led people to analogize the U.S. of 1991 to Great Britain, and President Bush to Winston Churchill. Thus, people would vary the analog for country, and vary the analog for leader, but those two always systematically cohered in the analogy.

A second paper on analogical reasoning, “Pragmatics in Analogical Mapping,” presages Spellman’s later work on appellate decisionmaking. That paper demonstrates how individuals’ unrelated knowledge, goals, and values can affect which analogies they see as better. For example, study participants who have been asked to assess economic as opposed to military

relations between countries will later value economic factors more highly when deciding which countries are most analogous to each other.

### **Causation**

Spellman began working on causal reasoning for her dissertation, “The Construction of Causal Explanations,” much of which is published as “Crediting Causality,” 126 *J. Experimental Psychol. Gen.* 323 (1997). She divides her causal reasoning research into two phases: cause-in-science and cause-in-law. In the former, she investigated how people create general causal rules after learning about the contingencies between cause and effect. For example, if someone sees fertilizer being applied to some plants but not other plants, then later sees which of the plants bloom, she can compare the cause/outcome combinations to evaluate the efficacy of the fertilizer. But life is not usually as simple as one cause acting in isolation leading to one effect. In other studies Spellman examined how people “conditionalize” their causal attributions on the existence of other potential causes. A simple example is this: Suppose it is true that people who drink coffee are more likely to get lung cancer than people who do not. Should we then infer that coffee causes lung cancer? Of course not. Perhaps coffee drinkers are more likely to be smokers, and smoking, rather than coffee, is doing the causal work. Thus, we should examine the effect of coffee independently of the effect of smoking; if coffee drinkers smoke more than non-coffee drinkers, this would provide an alternative explanation. Spellman showed that people can and do use this conditionalized reasoning, but only under some conditions are they likely to look for these types of alternative causal explanations.

Cause-in-law differs from cause-in-science in that in law there is often only one actual event triggering the causal inquiry. The fertilizer isn’t put on many plants, rather, the poison masquerading as fertilizer is only poured on one prize-winning rosebush, which soon dies. Is the negligent gardener responsible for the damages?

How do people make causal inferences in such single-event situations? Spellman agrees with other researchers that people sometimes use counterfactual reasoning for these judgments. If we imagine that the gardener had not poured the poison, then we expect that the plant would not have died. People use such hypotheticals in the regular course of causal reasoning and those trained in law should recognize it as but-for causation.

However, Spellman noted, “Our legal training has also taught us

that but-for causation is neither necessary nor sufficient for attributing legal causation. When two fires combine to burn down a building or two people concurrently kill another one, neither alone is a but-for cause, but we nonetheless believe that both are legally responsible. And when poor Mrs. Palsgraf is injured, people do not suggest that oxygen was a cause, or the train tracks were a cause, even though the lack of either would have negated her injury.”

Spellman shows how experiment participants solve such causal puzzles very similarly to how the law prescribes in “The Relation between Counterfactual (‘But for’) and Causal Reasoning: Experimental Findings and Implications for Jurors’ Decisions” (with Alexandra Kincannon), *Law & Contemp. Probs.*, Autumn 2001, at 241.

The theoretical question is: How and why do regular people, unschooled in the intricacies of proximate and multiple sufficient causation, end up making normative legal judgments? Spellman argues that they do not simply think of counterfactuals. They also think of probabilities. How likely is it that a specific counterfactual would occur and, if it did occur, how likely would it be to change the outcome? This analysis explains many judgments of causation, including some tricky examples, like those of superseding intervening causes. For example, if Josh’s car has bad brakes, he lends it to Sarah, and she gets into a crash in part because of the brakes, who is responsible? What if he knew the brakes were bad but failed to tell Sarah when he lent her the car? If Josh didn’t know, experimental participants judged Sarah (and the brakes) to be responsible; if he did know but didn’t tell, Josh was judged to be responsible. Other examples plus the mathematical analysis appear in “Counterfactuals, Control, and Causation: Why Knowledgeable People Get Blamed More” (with others), 41 *Personality & Soc. Psychol. Bull.* 643 (2015).

### **Calibration**

Calibration—peoples’ ability to judge the accuracy of their own or other peoples’ assessments—is a third psychological research area that has huge implications for law. Lawyers may tell witnesses to speak confidently because jurors are more likely to believe confident rather than unconfident witnesses. But Spellman shows that calibration is also important to credibility, in several papers with her former graduate student Elizabeth Tenney (now a business professor at the University of Utah), Stanford Law Professor Rob MacCoun, and others. Suppose there are two witnesses; each

is highly confident about most details but one has low confidence about one detail. Overall, the totally confident witness will be judged as more credible. However, if both are proven wrong about some detail, and it is the detail that the less-confident witness doubted, then that witness will be viewed as more credible regarding everything else. That is, if a witness demonstrates that her confidence is well correlated with her accuracy, her judgments will be more credible. Spellman covers these topics in “Calibration Trumps Confidence as the Basis for Witness Credibility,” (with others), 18 *Psychol. Sci.* 46 (2007); “The Benefits of Knowing What You Know (and What You Don’t): How Calibration Affects Credibility” (with Elizabeth R. Tenney and Robert J. MacCoun), 44 *J. Experimental Soc. Psychol.* 1368 (2008); and “Credible Testimony In and Out of Court” (with Elizabeth R. Tenney), 17 *Psychonomic Bull. & Rev.* 168 (2010).

## **II. THE MOVE TO LAW AND PSYCHOLOGY**

After dozens of empirical papers, a million dollars in research funding, four years in the University of Texas Department of Psychology and twelve years in UVA’s Department of Psychology, Spellman moved to the Law School. In the late aughts, Spellman realized that despite her initial desire not to be involved in psychology and law research, almost all of her research had taken a legal turn. Plus, she was enjoying teaching her Psychology and Law classes. She had often taught it as an undergraduate seminar; many of the students went on to law school, including some to UVA. But when she taught a class of ten psychology graduate students and ten law students, she saw how much could be done, but had not been done, in merging the two fields.

It was also a good time to begin working at the intersection of law and psychology. Previously, psychology research had not been very respected by the law or in the legal academy. Two things improved its status. First, DNA exonerations showed that psychologists had long been correct about the pitfalls of some kinds of evidence, for example, eyewitness testimony and confessions. Second, economics had infiltrated law. When behavioral economics grew popular, that, too, crept into law, resulting in the nascent field of behavioral law and economics. (Spellman is known to refer to “behavioral economics” as “psychology in disguise.”) Ultimately her goal was to connect law with psychology in her research and teaching, and, while doing so, to help others see that the connections between the two fields are much more abundant than what psychologists have chosen to empirically address so far.

Spellman's papers on judges as decisionmakers address the roles of both trial judges and appellate judges. (She once taught a seminar called *Psychology of the Deciders: Judges, Jurors, & Juries*.) She argues that nothing in judges' history, training, or experience should make them better factfinders than twelve jurors—although they might be more conscientious in following the law. (See excerpt from “On the Supposed Expertise of Judges in Evaluating Evidence.”) Her papers on appellate decisionmaking, informed by her research on analogy and other forms of inductive reasoning, argue against the strong legal realist view that judges first make a decision then find precedents to justify it. Instead she demonstrates how someone's prior knowledge, goals, order of learning information, method of looking for similarities versus differences across cases, and other cognitive factors, can lead her to unconsciously come to the same result that an attitudinal model would predict. (See excerpt from “Judges, Expertise, and Analogy.”)

To bring additional ripe-for-research areas of law to the attention of experimental psychologists, Spellman has authored (and co-authored) articles and chapters for cognitive and social psychologists and for an international interdisciplinary group. “Editors still wanted me to include the well-trodden research on, for example, eyewitness memory and jury decisionmaking, although if I pushed enough they did let me describe some of the new directions I wanted research to go, including remedies, torts, contracts, property, and intellectual property. And, of course, evidence law.”

In 2010, Michael Saks asked Spellman to co-author a book with him that was to become *The Psychological Foundations of Evidence Law*. It was one of the first in a series of books, published by NYU Press, showing how psychological research can inform many areas of law. “Writing this book was a tremendous amount of fun,” Spellman said. “It was a great way of bringing together my background in both cognitive and social psychology, and my recent experience with, and occasional frustration with, teaching Evidence Law.”

Saks and Spellman argue that in designing and applying the rules of evidence, the “rulemakers”—drafting committees, legislatures, appellate judges, and trial judges—are “acting as applied psychologists.” These agents have beliefs about the quality of certain types of evidence and beliefs about how other people (lawyers, judges, jurors) would use such evidence. Saks and Spellman explain that sometimes the rulemakers get the psychology right and sometimes they seem off-target. For example, Federal Rule of Evidence 404 generally forbids the use of character evidence for the purpose of showing “propensity” to do an act. Saks and Spellman believe that is a

good decision. Psychology research has shown that a person's prior acts are, indeed, a slight predictor of their future acts—enough to overcome the very low standard for relevance required by FRE 401. However, psychology has also shown that people (especially in the United States) typically believe that a person's prior acts are far more predictive of their future acts than actually is the case. (Situations matter much more than people typically acknowledge.) Therefore, not allowing character evidence to show propensity is a sensible rule.

However, character evidence may be allowed in criminal trials for other purposes—such as showing motive, intent, or preparation—but jurors may be instructed not to use that information to support propensity. Similarly, prior criminal convictions may be let in to impeach a witness—but jurors may be instructed not to use it to support guilt in the current trial.

“Writing the book made me aware, once again, how much the psychology literature focuses on just a few aspects of law,” Spellman said. “For example, the book has a whole chapter on instructions to disregard or limit the use of evidence. There are many federal rules of evidence that limit use, and the problem arises frequently in trials and can be quite nuanced, but there is little psychology research on it. On the other hand, there is a ton of psychology research on instructing juries to disregard evidence, which is not a major concern of the rules of evidence but sure seems to come up a lot on television.”

At the same time as she was working on the book, Spellman was editor-in-chief of the highly regarded journal *Perspectives on Psychological Science*. It was a sensitive time for research in the life and social sciences, psychology included, as more and more research was found not to replicate, more fraud was exposed, and more papers were retracted. Spellman sensed researchers'—especially younger researchers'—frustrations with the status quo, and positioned the journal as a leading outlet for articles analyzing the current problems in the field and proposing (and producing) solutions to what had become known as “the replication crisis.” After overseeing the publication of more than 100 articles relevant to the science-reform movement, Spellman presented her own historical analysis of the problem and her predictions for future reform in “A Short (Personal) Future History of Revolution 2.0,” 10 *Persp. on Psychol. Sci.* 886 (2015) (a version of the paper for a more general audience is available as “A Different Kind of Scientific Revolution,” *New Atlantis*, Spring/Summer 2016, at 46). She analogized the current situation to an internal revolution, like the French Revolution, in which citizens strive to overturn the status quo in their own country.

Much of the current strife is between those who have succeeded under the previous rules (i.e., leaders who want to keep the status quo) and those, especially younger people, who, given their ease with technology and their lack of fear of sharing research, want to make science more transparent and open.

### III. THE ROAD AHEAD

What is next? In her lectures and writing, Spellman continues to push for better standards for research, teaching, and publication in psychological science, including in a forthcoming chapter, “Open Science” (with Elizabeth A. Gilbert and Katherine S. Corker), in John Wixted, ed., *Stevens’ Handbook of Experimental Psychology and Cognitive Neuroscience, Volume V: Methodology* (Wiley).

At the same time, she believes that psychological scientists know many things that could be of use to policy and law. The final issue of *Perspectives* under her editorship contained twelve papers, selected from more than 200 submitted abstracts, in which psychologists imagined that there was a Council of Psychological Science Advisors, analogous to the current Council of Economic Advisors. Papers addressed education, climate change, aging, intelligence analysis, ethics, diversity, and public health. David Halpern (advisor to David Cameron, then the British prime minister) and Cass Sunstein wrote comments on the plausibility of the proposed initiatives.

Spellman has recently written about the uses of psychological science for intelligence analysis and for various justice initiatives. She is currently working on a handbook chapter for forensic science laboratories that will help implement best practices as informed by psychology. She notes that some of her recent talks in psychology departments have illustrated how the reasoning processes in forensic science are similar to those in appellate decisionmaking. And she is looking forward to teaching another class with both law students and psychology graduate students on the psychology of wrongful convictions. She remains convinced that psychology and law have a lot more to say to each other.

## EXCERPTS

### ON THE SUPPOSED EXPERTISE OF JUDGES IN EVALUATING EVIDENCE

IN RESPONSE TO FREDERICK SCHAUER,  
*ON THE SUPPOSED JURY-DEPENDENCE OF EVIDENCE LAW*

156 *U. Penn. L. Rev. PENNumbra* 1 (2007)

From way down in the dirty depths, where those of us who collect empirical data dwell unobserved and largely ignored by most legal academics, it is refreshing to hear a call for “more data” from legal scholars such as Fred Schauer. In asking whether it makes sense to follow the existing trend of discarding much of evidence law when judges—rather than juries—are the fact-finders at trial, he notes that the empirical literature involving judges’ reasoning is sparse and the literature comparing judges with jurors is even sparser. In order to determine whether judges are better than jurors at weighting evidence and fact-finding, as many appear to believe, he wishes for more and more focused research.

However, before I drag my computer, my research assistants, and my cognitive psychologist’s bag of “heuristic and bias tricks” and “memory illusions” to the next judges’ conference, I would want to ask myself several important questions that are all subsets of this one: Why would anyone expect judges to be different from jurors at evaluating evidence? Considering possible answers to this question is critical before beginning research because there are an infinite number of experiments that one might run comparing judges and jurors, but there is neither an infinite amount of time nor of judges’ goodwill. Developing hypotheses will guide the selection of the experiments and, later, the generalization of the experimental results to situations broader than the specific experimental stimuli.

One subset of questions has to do with the task: What is it that people are asked to do mentally with evidence presented in the courtroom? The second subset has to do with comparing judges and jurors (or juries): How do they differ? It is only after considering those two types of questions—about the tasks and the reasoners—that we can offer testable hypotheses

Footnote citations are not included in excerpts.

about whether judges and jurors are likely to differ on the tasks and, if so, when, why, and how. And it is only then that we should design our studies to investigate those hypotheses. This Response specifically focuses on whether judges have any expertise that might suggest that they should, in fact, be better at weighting evidence and, ultimately, at fact-finding, than jurors.

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### III. THE QUESTION OF JUDICIAL EXPERTISE

What *is* an expert? An expert is someone who performs consistently and reliably better on representative tasks than the overwhelming majority of other people. What *makes* an expert? There are two types of answers to this question. One has to do with the qualities, training, and experience needed to develop expertise. The other has to do with the range of competences and abilities that we expect experts to demonstrate.

There is no good reason to conclude that, by virtue of qualities, training, or experience, trial judges should be considered experts at weighting evidence or at fact-finding. Experts are not just “smarter” than non-experts. Nor are large amounts of experience alone—such as thousands of hands of bridge or hundreds of rounds of golf—sufficient for developing expertise. Rather, expertise develops out of “many thousands of hours of specific types of practice and training”— a process called “deliberate practice.” Deliberate practice requires focused programmatic study. It includes appropriate feedback about performance. It includes identifying errors and working on procedures to eliminate them. One might consider that law school training involves these qualities and so all lawyers (and even more so lawyers and judges working in the appellate system) would develop expertise in analyzing cases. That may be true, but analyzing cases—reading (truncated) text, considering an already-digested fact pattern, evaluating the justifications for a holding, looking for the real justification behind the stated ones, and evaluating a rule or principle in light of possible implications or future applications—is quite different from weighting evidence and finding facts. For the latter two tasks there is no prolonged training with feedback in law school; law students do not listen to trials as they unfold and learn to integrate—or not integrate—admissible and inadmissible evidence. And trial judges can sit through hundreds of cases and never do the focused study or have the fast reliable feedback necessary for developing expertise. With the exception of bench trials, it is not the trial judge’s job to weight and evaluate evidence; that is, they need not “practice.” Further, reliable feedback as to

the appropriate weighting of evidence does not exist—the ground truth of cases is never known.

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In the various lists comparing and contrasting the strengths and weakness of judges, jurors, and juries, one important factor is often forgotten: all are human. From earliest infancy, the human cognitive system is a sophisticated tool for detecting patterns, seeing relations, imagining causes, and creating coherent stories (even if sometimes they do not exist). In that way we all could be called “experts.” It is difficult to envision how a mere desire, or an admonition, to stop thinking like a human being could be effective. For anyone.

## JUDGES, EXPERTISE, AND ANALOGY

David Klein & Gregory Mitchell, eds., *The Psychology of Judicial Decision Making* 149 (Oxford University Press, 2010)

### INTRODUCTION

One appellate case, three courts—and seven disparate opinions. Clearly, different judges reach different decisions based on the same facts and same legal doctrine. Why? Political scientists have shown that one can anticipate how a judge will decide a case more often than chance, or a reading of the facts, might allow. Using various predictors—party affiliation, party of appointment, the judge’s own decisions on earlier similar cases—regression analyses can demonstrate that judges are behaving in a manner consistent with their explicit prior beliefs (e.g., Segal & Spaeth, 1993, 2002). The simplest explanation for such behavior is that judges first decide what they want the outcome of the case to be, then go back to find the precedents that justify their opinions. The more complicated claim that I want to make is this: people (and judges) may choose relevant analogies (or precedents) as better or worse, applicable or inapplicable, not because of any particular desired outcome but rather because of their own pre-existing knowledge. The influence of such knowledge on the decision process may be entirely unconscious; therefore, judges may, in fact, be following the idealized decision-making process to the letter, and be unmotivated toward finding a particular result, yet may usually still reach the predicted result.

To understand this argument, I first present an overview of the analogical reasoning research done by cognitive psychologists. Next I address whether judges are experts at analogical reasoning and show why the answer is relevant to how they may be using analogy. Then I turn to other research—including some from other areas relevant to analogy like similarity and categorization—to show how pre-existing knowledge can (unconsciously) affect analogy use. Finally, I link these arguments back to the initial question: whether judges, or anyone, can be making “predictable” decisions while still following an idealized analogical reasoning process.

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### **C. ARE JUDGES EXPERTS AT ANALOGICAL REASONING?**

Elsewhere others and I have argued that judges are *not* experts in several tasks that might be viewed as components of judging. For example, it could be argued that judges are neither expert fact-finders (Robinson & Spellman, 2005) nor expert at appropriately weighting evidence (Spellman, 2007). One reason is that although (some) judges may often do those tasks, they are not trained to do them the way law students are trained to analyze cases in law school. In law school we had the pleasure of years of reading cases, abstracting rules and similarities, drawing analogies to other cases or hypotheticals, and being given corrective feedback about our analyses. In a sense, when lawyers write briefs, and when judges read and rule on them, they are engaged in a similar activity. Thus, it seems as though the conditions for developing expertise at analogical reasoning might be met.

#### **1. LAW SCHOOL TECHNIQUES AND THE POSSIBILITIES OF IMPROVING ANALOGICAL REASONING.**

Although the psychology literature is fairly glum about people’s ability to take what they have learned in one domain and use analogy to transfer that knowledge to another domain (see Barnett & Ceci, 2002, for a review), there are, in fact, ways to improve people’s performance on analogical reasoning tasks.

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#### **a. Creating more abstract source representations indirectly by comparing analogs.**

One way to improve analogical reasoning in the laboratory is to have subjects compare and abstract from multiple analogs.... This compare-and-abstract technique has been shown to benefit business school students in negotiation classes who, like law students, participate in case-based learning (Loewenstein, Thompson, & Gentner, 1999).

#### **b. Training people to abstract principles from single analogs.**

Another way to improve analogical reasoning is to train people to represent single source analogs at an abstract level....

#### **c. Teaching the names of relations.**

A third way to improve analogical reasoning is to use consistent relational labels when people learn the analogs. Although the laboratory data with adults is sparse, the idea is consistent with various kinds of developmental and anecdotal evidence. People tend to use the same labels for objects (e.g., car, tow truck) but different labels for verbs and relations (e.g., pulls, tows, drags)—making it easier to use objects/attributes in retrieval and also making relations more difficult to learn (Gentner & Kurtz, 2007; Gentner & Loewenstein, 2002). Relational categories seemed to be learned by “progressive alignment”—comparing examples that are at first more similar than more distant (Gentner & Kurtz, 2007).

Law students learn the names of many legal relations: contracts, torts, negligence, standing, jurisdiction—all are about the relations between parties and/or actions that create legal rights or obligations. Certainly, there are some legal categories that are “attribute-based”: there are laws that apply only to people over 18 years old and there are laws that apply only to ships. However, much of law school is about learning, by contrasting many examples, the requirements and limits of legal relations.

#### **2. BUT DOES LAW STUDENTS’ ANALOGICAL REASONING ACTUALLY IMPROVE?**

In effect, all of the above techniques—comparing multiple analogs, abstracting from single analogs, learning the names of legal relations—are techniques used in law school to teach the content of the law. Psychologists,

however, do not have any measures that demonstrate that law school improves general analogical reasoning. In a study of the effects of graduate training on reasoning, law students, medical students, and graduate students in psychology and chemistry took tests involving statistical, methodological, conditional, and verbal reasoning during the first and third years in the programs (Lehman, Lempert, & Nisbett, 1988). The verbal reasoning test included verbal analogical reasoning (as on the GRE or LSAT). The first-year law students had higher initial verbal reasoning scores than the other groups—suggesting self- (or law school) selection. However, after three years of schooling, the law students improved only about 5 percent on average (a statistically non-significant difference) in verbal reasoning; all of the other groups' average scores improved more.

Granted, these data showing no improvement in analogical reasoning are not the best—among other flaws they only include law students (at the University of Michigan) after three years of training rather than experienced judges and, of course, the verbal reasoning tasks are not the same as the type of full-blown analogical reasoning done when reasoning about cases. However, these data are consistent with a wide variety of other data showing limitations on both the transfer of training and the boundaries of expertise.

### 3. EXPERTISE AND THE PROCESS/CONTENT INTERACTION.

The best way to think of what judges may have developed is that it depends on both process and content: it is using analogy in a domain in which they have specialized knowledge—knowledge that enables them to quickly understand which features of a case are the relevant ones for analogical mapping. Thus, within the legal context (or, more likely, within a subset of that context), judges are experts at using analogy; however, when reasoning outside their knowledge base, although they may be more fond of using analogy than most people (because of practice or precocity), they will not be any better than equally intelligent and informed others.

To return to the cruise ship example, probably no one who was legally trained would think that the sex of the victim, the nature of the trip, or the items that were stolen would matter in that case; even if those features bring to mind similar cases, those that do not have an underlying structural similarity (e.g., the women being hit by the handbag on the cruise ship) would be easily rejected as irrelevant. And those who are legally trained should be less flustered by the surface similarity that boats and trains move whereas hotels do not. Rather, those who know that the law protects those

who are justified in expecting privacy and security—whether passengers or hotel guests—would be more likely to recall, recognize, and use the analogy between the obligation of a ship to a passenger in a private cabin and the obligation of a hotel to a guest in a private room.

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### IV. JUDGES AND ANALOGY

What can we conclude? Judges have had lots of practice using analogy; yet, they might not actually be “experts” because just as there is no real generalized expertise in “problem solving” it is not clear that there can be a generalized expertise in analogy use. More important, however, judges (like laypeople) know that when using analogies it is important to look for relational similarities and—because of their specialized training in legal content—they know which relational similarities matter within their domains of expertise.

Many of the limitations on using analogies described above have to do with “finding” or retrieving the proper analogs to use. Judges don't have to try to retrieve from memory—they have briefs and law clerks to find the relevant sources. Yet, as the WWII/Vietnam study shows, unconscious reminders of analogs that are not present can affect judgments even though, when made explicit, the analogs are not viewed any better or worse than other ones. In addition to this automatic retrieval of analogies, judges' knowledge, beliefs, and goals, may influence how they mentally represent different analogs and how they use them. When judges know more about some issues than others, or, in the past, have drawn analogies to one kind of outcome, or go into an argument asking more questions about similarities as opposed to differences, they might be more likely to unintentionally find in a direction consistent with past judgments—in part because of what they see as more (or less) similar, in part because of the level of abstraction (i.e., how deep the relations) they use, and in part because of an effort to maintain coherence in their beliefs.

Thus, although judges might decide consistently with predictions, it is possible that they do so not for any of the intentional (and sometimes seemingly “nefarious”) reasons suggested by legal realism. Regression analyses can reveal *that* it happens but understanding how analogical reasoning works, and how judges might use it, is necessary for understanding *why* it might happen.



# THE PSYCHOLOGICAL FOUNDATIONS OF EVIDENCE LAW

(with Michael J. Saks) (New York University Press, 2016)

## INTRODUCTION:

### THE CROSSROADS OF PSYCHOLOGY AND EVIDENCE LAW

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#### *Conclusion*

The rules of evidence are designed to facilitate trial factfinding by controlling what evidence may or may not be presented to the factfinder. Those rules came into existence, and evolved over time, as a result of changes in trial process and structure—most notably by the rise of adversarial procedure in the trial system, whereby the power to control the marshaling and presentation of case facts shifted from judges to lawyers. Today, various refinements and reforms are undertaken to try to improve the job that the rules do. Trial judges must not only apply the rules, but in many instances they have the discretion to make rulings in light of their expectations of the impact they think the evidence will have on jurors. This is a dicey metacognitive task: one human trying to estimate the thought processes of other humans.

In all of this, evidence rulemakers have been and are, in effect, acting as applied psychologists. The rules of evidence reflect their understanding—right or wrong—of the psychological processes affecting witnesses, key participants in the legal transaction at issue, and the capabilities and limitations of lawyers and factfinders. If the rulemakers had different beliefs about those things, the rules would be other than what they are. Psychological research and methods provide an additional source of insight and assistance in that endeavor. Several rules—the excited utterance exception to the rule against hearsay (Rule 803(2)), the rules concerning character evidence (Rule 404(a)), and the rules governing privileged communications (Rule 501)—illustrate how principles of cognitive and social psychology underlie evidence doctrine more generally.

Psychologists and other social and behavioral scientists typically employ some version of the scientific method—empirically testing assumptions, theories, and hypotheses in an effort to evaluate which are the valid understandings of how people perceive, store, and retrieve information, and how information is transformed during those processes. To assess evidence

rules, one could conduct experiments directly on a given rule, or borrow from existing knowledge developed in basic psychological research and see how well that knowledge supports existing or proposed evidence rules.

Fashioning evidence rules that “work”—that succeed in what the law hopes to accomplish—requires understanding the psychology of evidence law. And to understand the psychology of evidence law, we need to learn more about jurors—their role in trials and how they reason about the information they receive.

#### *Overview of What Is to Come*

For an overview of core concepts relating to evidence law discussed in this book and which chapters contain discussions of them, please see Appendix A.

In Chapter 1, “Judges versus Juries,” we compare the factfinding abilities of judges and juries, and try to understand their similarities and differences in light of psychological principles such as the two-systems theory. Interestingly, judges and juries tend to reach very similar decisions and, perhaps not surprisingly, they are susceptible to the same systematic cognitive errors.

Chapter 2, “Balancing Acts,” looks at the general rule for balancing the probative value of evidence against its prejudicial effects, as well as a number of categorical rules in which rulemakers have decided that the problem of the jury being misled is so great that judges must exclude all evidence that is defined as fitting within the rule’s ambit. The great psychological challenge for rulemakers and judges is that of metacognition: trying to conceive of what others (jurors) are thinking and feeling and how they will respond to evidence if it is presented to them.

Chapter 3, “Instructions to Disregard and to Limit Use,” deals with two different problems: that of undoing the damage of evidence that should not have reached the jury but did, and that of getting jurors to confine their consideration of evidence to permitted uses while at the same time refraining from employing evidence in forbidden uses. We examine psychological research on motivation, memory, and reasoning that might affect people’s desire and ability to perform such feats of cognitive skill when instructed to by judges, and ways the law could be more successful in achieving the aforementioned goals.

Chapter 4, “Witness the Witness,” examines the psychology of various tools the law uses to try to ensure that the information provided to the

jury by witnesses can be correctly assessed as true, false, or somewhere in between. Among these tools are the oath, exposure of witness demeanor (so jurors can assess witnesses' nonverbal and noncontent verbal behavior), and cross-examination (so jurors can evaluate statements as they are tested by the opponent's challenges to the testimony). We also describe the evolution of rules about who may testify and who may assert a privilege not to testify.

In Chapter 5, "Character Evidence," we consider the psychological reasoning behind the complex of rules that govern when evidence of a person's "character" may be admitted and when it must be excluded. This body of law has been said to be "archaic, paradoxical, and full of compromises and compensations. . . . But somehow it has proved a workable, even if clumsy, system." In addition, psychological findings suggest that the rulemakers had latched onto some notions that are even more sound than they ever realized.

Chapter 6, "Hearsay and Exceptions," focuses on the rationale for excluding some kinds of second-hand statements while allowing many others. A slowly growing body of psychological research suggests that jurors are better at assessing the weaknesses of out-of-court statements not subject to cross-examination than centuries of rulemakers have supposed. Most important, perhaps, psychology can help identify situations that are better or worse for reliability, for finding the truth, and for jurors' understanding of the dangers of different types of hearsay evidence.

In Chapter 7, "Scientific and Other Expert Evidence," we look at the steadily growing problem the law has in managing expert testimony. Expert evidence is potentially one of the most helpful sources of information factfinders might receive; yet, at the very same time, it presents a great risk of being incomprehensible, confusing, or misleading to both judges and juries. Rules of admission or exclusion have been of little help. When junky science is passed through to jurors, they are in a very weak position to separate the good from the bad. Cognitive psychology might guide the way to new and more helpful tools. But it is also possible that the problems presented by expert evidence cannot be solved without making radical—and unacceptable—changes to our system of trials.

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