

Battle of the Standards for Experts in Criminal Cases: Police vs. Psychologists

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Expert testimony is an integral part of legal decision making. It informs judges and juries about a wide variety of topics. The assumption underlying its admission is that the average factfinder may lack enough knowledge about scientific or technical topics to make fully informed decisions in the absence of such testimony. Judges and juries are expected to be able to better understand these topics with the expert's assistance. However, there is concern over exposing the factfinder to unreliable expert testimony in circumstances where the factfinder may erroneously place a great deal of weight on the testimony in their decision-making. Recent developments in the law regarding expert testimony have raised questions about how to limit the amount of unreliable expert testimony that is presented to the factfinders in order to prevent, as Professor Friedman puts it in his paper for this symposium, "jurors from being bamboozled by unreliable evidence."³ Although these developments have theoretically altered the courts' approach to expert testimony, significant questions, addressed by a number of papers in this symposium, still remain about whether the current approach attains an appropriate level of exclusion. For example, are admissibility standards too high or too low?

In his paper, Professor Friedman advances a number of criticisms and suggestions about current expert testimony standards and practices. We take these comments as a launching point for our discussion and, as will become evident, address them from an

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³ Richard D. Friedman, *Squeezing Daubert Out of the Picture*, 33 SETON HALL L. REV. 1047, 1047 (2003).

empirical perspective by drawing from our on-going study of appellate court practices and analyses. As Professor Friedman notes, the Supreme Court clarified the standards for the admissibility of expert testimony in the landmark decision *Daubert v. Merrell Dow Pharmaceuticals, Inc.*⁴ The Court was called upon to determine the appropriate standard under which to evaluate scientific expert testimony. The case concerned birth defects that were allegedly caused by Bendectin, an anti-morning sickness drug manufactured by Merrell Dow.⁵ The experts whose testimony was in question in the case were epidemiologists, whose testimony had been excluded at the trial court level. Prior to the *Daubert* decision, the prevailing standard under which to evaluate the quality of scientific expert testimony was derived from the D.C. Circuit Court opinion in *Frye v. United States*.⁶ *Frye* concerned the admissibility of a precursor to the modern polygraph. The court determined that expert testimony should be admitted if it had gained general acceptance in the relevant scientific community, which became known as the general acceptance test.⁷ Decades later, the Federal Rules of Evidence were adopted.⁸ The Rules required that expert testimony assist the trier of fact, and that the expert must be qualified in order for the testimony to be admitted.⁹

In *Daubert*, the Court considered the question of how the admissibility of scientific expert testimony should be evaluated. The Court determined that the adoption of the Federal Rules of Evidence superceded *Frye* as the predominant standard for admission.¹⁰ The Federal Rules of Evidence made no mention of *Frye* or of the general acceptance test. Therefore, evaluating only general acceptance to determine if an expert should be admitted was improper. As part of the admission decision, the *Daubert* Court required trial court judges to determine if the proffered testimony was reliable.¹¹ This reliability evaluation should be conducted as part of the judge's determination that the testimony meets the requirements of the Federal Rules of Evidence.

The Court suggested several factors by which judges could

⁴ *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579(1993).

⁵ *Id.* at 582.

⁶ *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923).

⁷ *Id.* at 1014.

⁸ FED. R. EVID. 702

⁹ *Id.*

¹⁰ *Daubert*, 509 U.S. at 587.

¹¹ *Id.* at 589.

determine if an expert's testimony was reliable or not.¹² These factors included a consideration of whether the subject of the testimony was falsifiable or testable, whether the testimony was subjected to peer review or publication, and whether there was a known or potential error rate for the technique. The Court also suggested that the general acceptance of the testimony could be evaluated. This list of factors was not intended to be exclusive or to be applicable in every case, but it was intended to provide some limited guidance for the judges making these decisions.

In the years following the *Daubert* decision, there was confusion among the lower courts and legal commentators concerning the applicability of the decision to non-scientific expert testimony. The type of expert testimony provided in the *Daubert* case was highly scientific, and the suggestions made by the Court for evaluating reliability focused on scientific methodology. Some reasoned that the mandates of the *Daubert* opinion did not apply to non-scientific evidence, and the reliability of non-scientific evidence did not have to be evaluated to determine admissibility. Others reasoned that, although *Daubert* dealt specifically with scientific evidence, the Court's suggestions applied equally to both scientific and non-scientific testimony. A number of commentators argued that reliability should be evaluated for all types of expert testimony, regardless of the applicability of the four suggested factors.¹³ These issues remained open until the admissibility of an engineer, in the form of a tire expert, was questioned in *Kumho Tire Co. v. Carmichael*.¹⁴ In *Kumho*, the Court determined that the reliability of all expert testimony should be evaluated to determine admissibility.

In his paper Professor Friedman challenges the idea that a high degree of reliability should be the determining factor in admissibility decisions concerning expert testimony, and he makes a strong case that even unreliable evidence (that is, evidence which produces relatively high error rates) can nonetheless be very useful to factfinders. We are not inclined to dispute that proposition, and it is

¹² *Id.* at 592-95.

¹³ David L. Faigman, *The Evidentiary Status of Social Science Under Daubert: Is It "Scientific," "Technical," or "Other" Knowledge?*, 1 PSYCHOL. PUB. POL'Y. & L. 960 (1995); see also Edward J. Imwinkelried, *The Next Step After Daubert: Developing a Similarly Epistemological Approach to Ensuring the Reliability of Nonscientific Expert Testimony*, 15 CARDOZO L. REV. 2271 (1994); Edson McClellan, *Sharpening the Focus on Daubert's Distinction Between Scientific and Nonscientific Expert Testimony*, 34 SAN DIEGO L. REV. 1719 (1997); Karen L. Needham, *Questioning the Admissibility of Nonscientific Testimony After Daubert: The Need for Increased Judicial Gatekeeping to Ensure the Reliability of All Expert Testimony*, 25 FORDHAM URB. L.J. 541 (1998).

¹⁴ *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999).

clear from his paper that Professor Friedman does not object to admissibility practices and standards that encourage the introduction of reliable evidence with low error rates. However, irrespective of one's stance on these issues, it is clear that placing the responsibility for evaluating the scientific reliability of expert testimony on the trial court judges raises concerns. Foremost among these concerns is whether or not judges have the ability to appropriately distinguish between reliable and unreliable testimony.¹⁵ Most judges lack training in scientific methodology, yet *Daubert* calls upon them to not only have knowledge about scientific methods, but also to apply that knowledge in their admission decisions. Concerns about the interaction between judges and science are not solely a product of the *Daubert* opinion. Prior to the *Daubert* decision, researchers investigated judicial attitudes toward and knowledge of scientific principles. Research by Lehman, Lempert, and Nisbett suggested that law school does not by itself prepare lawyers and future judges to recognize flaws in empirical research.¹⁶ That study indicated that incoming law students had a low level of skill in statistics and methodology (such as understanding the effects of a missing control group) and students demonstrated no improvement in the ability to apply statistical or methodological rules to everyday events during their third year of law school.¹⁷

Surveys conducted on actual judges to determine their abilities to assess similar information suggest that judges lack the ability to evaluate scientific reliability. For example, Manuto and O'Rourke conducted an exploratory survey to assess federal judicial knowledge of empirical methods, and the majority of the judges surveyed had little or no knowledge of social science methods.¹⁸ Judges rated the importance of several statistical measures, such as "validity." Judges also responded to open-ended questions about the appropriate role of training in empirical methods in a legal education and the value of scientific evidence in the courtroom. Results indicated that although judges felt knowledge of social science methods "would be helpful . . .

¹⁵ Faigman and Saks, among others, observed that most judges lack training in scientific methods, which could make their gatekeeping duty more difficult. See Faigman, *supra* note 13; Michael J. Saks, *The Aftermath of Daubert: An Evolving Jurisprudence of Expert Evidence*, 40 JURIMETRICS J. 229 (2000).

¹⁶ Daniel R. Lehman et al, *The Effects of Graduate Training on Reasoning: Formal Discipline and Thinking about Everyday-Life Events*, 43 AM. PSYCHOLOGIST 431 (1988).

¹⁷ See *id.* at 440.

¹⁸ R. Manuto & S.P. O'Rourke, *Federal Judges' Perceptions of Social Research in Judicial Decision Making*, 4 COMM. REP. 103 (1991).

but not essential,”¹⁹ the majority of the judges surveyed possessed little or no knowledge of social science methods. Overall, the judges were disinterested or hostile toward social science. Even among those judges having a positive attitude toward social science, the role of education in social science methodology was viewed as trivial.²⁰

Although there is a large body of research investigating the effect of expert testimony on jury decision-making, there is only a small but influential body of empirical research that has been conducted on judicial decision making about expert testimony. This is likely because judicial decision making about expert testimony was not a crucial consideration until the Supreme Court’s recent opinions. Among this body of research is a national survey of state trial court judges designed to assess their understanding of *Daubert*’s scientific factors, their willingness and ability to apply the *Daubert* factors.²¹ Judges’ demonstrated level of understanding of the factors was shockingly low. While the majority of judges “clearly understand” peer review and general acceptance, only a small percentage of judges who thought falsifiability and error rate were useful factors clearly understood the meaning of those terms.²² Kovera and McAuliff conducted another study that manipulated the quality of the science being presented to the court, including some of the *Daubert* factors.²³ While judges with some prior scientific training were somewhat sensitive to experimental validity, judges without scientific training were insensitive to variations in the quality of science presented before the courts. For example, peer review was not influential in judges’ decisions to admit or exclude the evidence, and judges were not sensitive to experimenter bias and lack of control condition manipulations.²⁴

The results of these studies suggest that irrespective of whether reliability standards are set high or low, judges may have difficulty assessing the reliability of scientific evidence placed in front of them. The findings also support Professor Friedman’s arguments against the use of a reliability standard, and a return to reliance on whether the specialized knowledge in question “will assist the trier of fact to

¹⁹ *Id.* at 104.

²⁰ *See id.*

²¹ See Sophia I. Gatowski et al., *Asking the Gatekeepers: A National Survey of Judges on Judging Expert Evidence in a Post-Daubert World*, 25 L. & HUM. BEHAV. 433 (2001).

²² *Id.*

²³ See Margaret B. Kovera & Bradley D. McAuliff, *The Effects of Peer Review and Evidence Quality on Judge Evaluations of Psychological Science: Are Judges Effective Gatekeepers?*, 85 J. OF APPLIED PSYCHOL. 574 (2000).

²⁴ *Id.*

understand the evidence or to determine a fact in issue.”²⁵ Of course, on the narrow question of whether judges can understand and apply reliability criteria, we cannot really say that the case is closed. Most judges are probably capable of learning how to undertake the sort of analyses advanced by the Supreme Court in *Daubert*, and we might imagine that one instrument of such pedagogy is appellate court opinions in which our most experienced and sophisticated judges educate lower courts about appropriate methods for conducting reliability analyses. In our analyses below, we examine pre- and post-*Daubert* appellate opinions in an effort to ascertain the effect of *Daubert* on appellate instruction in reliability analysis.

In the aftermath of these developments, the question still remains as to whether the standards applied to expert admissibility are too high, thereby prohibiting the admission of reliable evidence, or too low, permitting the admission of unreliable evidence. Indeed, in light of the studies noted above, it is even fair to ask whether trial courts are able to differentiate more reliable evidence from less reliable evidence. If they are not, one might ask if they instead are relying on other standards such as the one favored by Professor Friedman in his symposium paper—whether the specialized knowledge in question helps “the trier of fact to understand the evidence or to determine a fact in issue.” In our other research on appellate court decisions about expert evidence we have observed that courts evaluate expert evidence in criminal trials in a manner that is at times quite harsh and at other times without any regard for demonstrations of the reliability of that evidence.²⁶ Professor Friedman has advanced the proposition that variability in standards for admission of expert evidence in criminal cases is defensible. His position is that “[w]hatever the tests for admissibility may be, they “should be very lenient for criminal defendants, and tougher for prosecutors, with the standards for civil litigants somewhere in between.”²⁷ Friedman defends this proposition by 1) noting that prosecutors stand in a very different position than that of an accused in such matters as discovery and party resources, 2) arguing that because prosecutors as “repeat players” face tougher admissibility standards for their evidence, they may be induced to produce better evidence, and 3) recognizing the differential in stakes (reflected in

²⁵ Friedman, *supra* note 3, at 1060.

²⁶ See Jennifer L. Groscup et al., *The Effect of Daubert on the Admissibility of Expert Testimony in State and Federal Criminal Cases*, 8 PSYCHOL. PUB. POL’Y & L. 339 (2002) (comparing the admission rates for different types of experts in criminal cases).

²⁷ See Friedman, *supra* note 3, at 1047.

the “beyond a reasonable doubt” standard of persuasion that rests on a shared perception that the social cost of an erroneous conviction is many times greater than the social cost of an erroneous acquittal).

In this vein, we believe that a detailed comparison of trial and appellate courts’ treatment of two types of testimony commonly provided in criminal cases, police officer and psychologist testimony, is particularly revealing. Expert testimony by police officers is required for the prosecution of many crimes, particularly drug-related crimes. Psychologists often testify in criminal cases, providing information about defendants’ psychiatric diagnoses or providing social framework evidence to aide the factfinder in appropriately evaluating the evidence in the case.²⁸

In contrast to the various issues raised about other types of experts, there has been very little criticism of police officers testifying as experts. However, among the criticisms of the courts’ treatment of police officers is Schumm’s—that courts admit police officers without any real consideration devoted to their reliability.²⁹ Others have argued, as a point of criticism, that when courts admit police officers as experts, they do so using precisely the admissibility criteria advanced by Professor Friedman in his paper for this symposium, that is, courts refer only to assisting the trier of fact or qualifications as criteria for admission.³⁰ Courts do not apply *Daubert* to police, and courts do not assess the reliability of police.³¹ The lack of broader critical commentary about police officers as expert witnesses may be attributed to a number of factors. Our suspicion is that a primary factor is that police officers are viewed as inherently reliable by courts. Survey studies of jurors indicate that police officers testifying as experts are perceived as highly likeable, understandable,

²⁸ Social framework evidence refers to psychological research or group data that is unrelated to the case at hand. It is provided to give the jury an understanding of the facts in issue. An example of social framework evidence would be an expert discussing the body of research on eyewitness reliability, which is unrelated to any single case, in order for the jury to properly evaluate the credibility of the eyewitness in a specific case. Laurens Walker & John Monahan, *Social Frameworks: A New Use of Social Science in the Law*, 73 VA. L. REV. 559 (1987).

²⁹ See Jeffery M. Schumm, *Precious Little Guidance to the “Gatekeepers” Regarding Admissibility of Nonscientific Evidence: An Analysis of Kumho Tire Co. v. Carmichael*, 27 FL. ST. U. L. REV. 865, 879-80 (2000).

³⁰ See David L. Faigman, *Embracing the Darkness: Logerquist v. McVey and the Doctrine of Ignorance of Science is an Excuse*, 33 ARIZ. ST. L.J. 87, 97 (2001); see also Jennifer Laser, *Inconsistent Gatekeeping in Federal Courts: Applications of Daubert v. Merrell Dow Pharmaceuticals, Inc. to Nonscientific Expert Testimony*, 30 LOY. L.A. L. REV. 1333 (1997).

³¹ See Schumm, *supra* note 29.

believable, and confident, more so than other types of experts.³² It is not much of a stretch to imagine that judges share these perceptions.

On the other hand, courts and commentators have been highly critical of psychologists testifying as experts. Psychological testimony has been described by deVyver as a dangerous type of non-scientific evidence fraught with bias.³³ Holly has characterized the testimony as inherently unreliable.³⁴ Faigman and others have raised questions about the admissibility of syndrome testimony post-*Daubert*.³⁵ Among the issues raised concerning syndrome evidence is the applicability of the *Daubert* factors, which are based on empirical science, to this type of testimony, which is largely based on clinical observation and theory.

I. ILLUMINATIONS FROM EMPIRICAL RESEARCH ON JUDICIAL DECISION MAKING IN CRIMINAL APPELLATE CASES

Based on such commentary, we can formulate several hypotheses about how courts evaluate police officer and psychological expert testimony and how those evaluations might have changed after

³² For example, Linz and Penrod asked jurors to rate different types of witnesses from fifty trials, including defendants, victims, eyewitnesses, police, and experts. Overall, police officers and experts were rated as the least dishonest and were rated as the most likable, understandable, believable, and confident. Daniel Linz & Steven Penrod, *The Use of Experts in the Courtroom*, SOCIAL PSYCHOL. (1982). Saks and Wissler also compared jurors' ratings of different types of witnesses, including a variety of expert witnesses. The types of witnesses included in the survey were doctors, chemical/drug analysts, appraisers/appraisers, handwriting analysts, psychiatrists, psychologists, firearms experts, polygraph technicians, police, and eyewitnesses. Participants rated their agreement with, the honesty of, and the competence of all of the witnesses and indicated whether they had a positive experience with, a negative experience with, or no experience with each of the witness types. Doctors, chemists, and firearms experts were rated as the most agreeable, honest, and competent. Accountants, eyewitnesses, psychologists, psychiatrists, and police were rated the next highest in agreeability, honesty, and competence. Polygraph technicians and handwriting analysts were rated the lowest on all these measures. Michael J. Saks & R.L. Wissler, *Legal and Psychological Bases of Expert Testimony: Surveys of the Law and of Jurors*, 2 BEHAV. SCI. & LAW 435 (1984). The results of these surveys indicate that police officers are trusted as experts, perhaps more so than psychologists.

³³ See K. Issac deVyver, *Opening the Door but Keeping the Lights Off: Kumho Tire Co. v. Carmichael and the Applicability of the Daubert Test to Nonscientific Evidence*, 50 CASE W. RES. L. REV. 177, 198 (1999).

³⁴ See J.L. Holly, *Why the Daubert Standard Should Apply to Both Expert Opinions Based Upon "Technical" or "Other Specialized Knowledge" and to Expert Opinions Based Upon "Science" or a "Scientific Method"*, 30 CUMB. L. REV. 247 (1999).

³⁵ See, e.g., Krista L. Duncan, "Lies, damned lies, and statistics?" *Psychological Syndrome Evidence in the Courtroom After Daubert*, 71 IND. L.J. 753 (1996); Faigman, *supra* note 13; David L. Faigman & Amy J. Wright, *The Battered Woman Syndrome in the Age of Science*, 39 ARIZ. L. REV. 67 (1997); Christopher Slobogin, *Psychiatric Evidence in Criminal Trials: To Junk or not to Junk?*, 40 WM. & MARY L. REV. 1 (1998).

Daubert and *Kumho*. From one perspective, we might anticipate that the number of police officers and psychologists who are admitted as experts would change after *Daubert* or *Kumho*. Given that many experts that testify in criminal cases are considered to be non-scientific, we might hypothesize that experts in criminal cases, including police officers, will be excluded more often after *Kumho* as the courts start evaluating the reliability of non-scientific testimony.³⁶ On the other hand, it is possible that when courts are evaluating police officers, their primary criteria employed may be the “assisting the trier of fact” criterion (variously promoted and criticized by commentators) and the qualifications of the police officer.³⁷ If true, when judges are determining the admissibility of police officers, they will not use the *Daubert* factors to determine reliability of police officers and may not evaluate reliability at all.³⁸

In order to investigate courts’ evaluation of police officers and psychologists in a systematic manner, we identified appellate court cases concerning the admissibility of expert testimony in criminal cases.³⁹ Appellate court cases were selected for several reasons including their widespread availability, their inclusion of information about trial court decisions, and their potential to demonstrate broader trends in admissibility.⁴⁰ The timing of the decisions ranged

³⁶ David E. Rovella, ‘*Kumho*’ *Could Affect Criminal Cases*, NAT’L L.J., Apr. 12, 1999, at A5. (arguing that *Kumho* would exert its greatest exclusionary effect in criminal cases because much of the evidence is non-scientific, such as police officers).

³⁷ See Faigman, *supra* note 29; see also Laser, *supra* note 29; Schumm, *supra* note 28.

³⁸ See Schumm, *supra* note 28.

³⁹ The search terms used to identify relevant cases in the Westlaw database were: “admiss! /5 expert or witness.”

⁴⁰ As with all empirical research, there are some limitations to the research presented here. Appellate court decisions have the potential to indicate overall trends in courts’ reasoning about expert testimony. Presumably, trial courts should be attentive to appellate decision making. In light of their potential influence on trial court decision making, several authors have highlighted the importance of trends in appellate court decision making in the investigation of expert admissibility including David L. Faigman, *Appellate Review of Scientific Evidence Under Daubert and Joiner*, 48 HASTINGS L.J. 969 (1997); Richard D. Friedman, *Squeezing Daubert Out of the Picture*, 33 SETON HALL L. REV. 1047 (2003); Christopher B. Mueller, *Daubert Asks the Right Questions: Now Appellate Courts Should Help Find the Right Answers*, 33 SETON HALL L. REV. 987 (2003). However, *Daubert* and *Kumho* were directed at trial court judges and the research was conducted on appellate court cases. This results in two important limitations. First and most important, the use of appellate court cases results in a selection bias in the dataset. Not all cases are appealed, and the reasons for raising an appeal or not may be wholly unrelated to the quality of the expert’s testimony. This may be particularly true in criminal cases. For example, the prosecution is generally barred from post-acquittal appeals of trial court decisions. Therefore, the improper admission of a defense expert or the exclusion of a

from five and a half years before *Daubert* to two years after *Kumho*.⁴¹ Cases were coded for content on variables including the type of testimony provided by the expert, the appellate court admission decision, the discussion devoted to the potential evaluative criteria, and the influence of these potential evaluative criteria on the admission decision. Evaluative criteria included the requirements of the Federal Rules of Evidence and the *Daubert* factors.⁴² Only cases containing substantive discussion of the admissibility of expert testimony were included in the database. Although we will only be presenting the results from a selected subset of experts testifying in criminal cases, the larger study included both civil and criminal experts of all types. Over 1800 cases have been coded in the research to date.

Of the experts testifying in criminal cases, 265 were police officers. The vast majority of the police officers whose testimony was challenged provided testimony about the behavior of drug dealers. This testimony included information about the structure and membership in drug organizations, the *modus operandi* of drug dealers, and the habits of drug users. Often, the police officer testifying as an expert was also the detective who investigated the case.

There were a total of 376 psychologists providing expert testimony in the criminal cases that were appealed during the time period investigated. Three hundred and eight of these experts were classified as clinical psychologists, who based their opinions and testimony on data from clinical observation. The clinical psychologists in the database testified on a broad range of topics including syndromes, child sexual abuse, insanity, competence, disorders, and dangerousness. Sixty-eight of the psychologists were classified as experimental psychologists, who based their testimony on information gained from empirical research. The vast majority of the experimental psychologists testified about issues relating to eyewitness reliability.

prosecution expert may never appear in the dataset. Second, except for the information about a trial court's decision provided in appellate court opinions we are required to make inferences about how trial court judges make their decision.

⁴¹ The cases included in the current analysis include both state and federal appellate court cases until the time of the *Kumho* decision. All cases included that were decided after *Kumho* are from federal courts only. Coding and analysis of the state appellate court cases after *Kumho* is still underway. Therefore, conclusions regarding the effects of *Kumho* should be regarded with caution.

⁴² For a more detailed explanation of the procedures used and the variables that were coded, please refer to Groscup et al., *supra* note 26.

Questions have been raised about whether courts are being critical of expert testimony in criminal cases and, if so, whether courts are being critical enough of these experts. One piece of evidence of how critical courts are of experts in criminal cases is the rate at which the appellate courts indicate that trial courts should have admitted testimony that is the subject of an appeal. In our previous research on all criminal experts, 69.1% ($N = 693$) of criminal experts before and after *Daubert* were admitted.⁴³ This provides a general point of reference with which to compare the admissibility of particular types of experts.

Police officers, who are admitted frequently, represent the high end of the continuum of admissibility. Police officers were admitted 85.7% of the time overall. At this rate they are, as we shall see, admitted significantly more often than both types of psychological experts in criminal cases.⁴⁴ This rate of admission was not affected by *Daubert* or *Kumho* in that the percentage of cases in which the appellate courts favored admissibility did not vary significantly in comparisons of pre- versus post-*Daubert* and post-*Kumho*. There was no change in the rates of admission for police officers after *Daubert* or *Kumho*. Police officers continued to be admitted at a consistently higher rate than all other experts over time. This provides some evidence that courts are not as critical of police as experts.

Do courts demonstrate as much affection toward other experts as they direct toward police officers, or are courts more critical of other types of expert testimony in criminal trials? In contrast to the courts' positive reception of expert testimony by police officers, courts have been less kind to their psychologist counterparts. Psychologists were only admitted 49.7% of the time overall, as compared to the 85.7% admissibility rate for police officers, a statistically significant difference. However, this overall number is not representative of how courts differentially treated clinical psychologists and experimental psychologists. The negative reception of psychological testimony is particularly apparent in the courts' approach to experimental psychologists' testimony. This is the type of testimony in a criminal case that is least likely to be admitted, with only 22.1% of these experts admitted at the appellate level. Clinical psychologists were admitted significantly more often than experimental psychologists. 55.8% of the clinical psychologists were admitted. As with police officers, there was no change in rates of admission after *Daubert* or after *Kumho* for either clinical or

⁴³ *See id.*

⁴⁴ $\chi^2(2) = 115.52, V = .43, p < .001$

experimental psychologists. Experimental psychologists continued to be admitted at a consistently lower rate than other experts over all time periods. These rates provide some evidence that courts are more critical of psychologists as experts, particularly experimental psychologists.

Because the qualifications of the expert can be an influential determinant of admissibility, an important consideration for judges may be the basis for the expert's knowledge. The source of the expert's knowledge could be another fact or which distinguishes police officer testimony from psychological testimony. The lack of consideration of police officer reliability could have been due to the type of testimony and qualifications brought to the court by police. Police officers are viewed as gaining their expertise from experience, which is consistent with the arguments of both Faigman and Risinger.⁴⁵ In fact, their testimony was significantly more likely to be based on experience than either type of psychologist (see Figure 1). They were also likely to base their knowledge on case specific experience, such as their role as the investigator in the case for which they are providing the expert testimony, significantly more so than for experimental psychologists. Clinical psychologists were the most likely to have their testimony based on case specific experience, such as their role as the therapist for the defendant or the victim in the case. Both types of psychologists were more likely than police to base their knowledge on their education. However, experimental psychologists were the most likely to derive their knowledge from a body of research, which is consistent with an empirical approach to psychological issues.

Courts may differentially evaluate police and psychologists on many of the potential criteria with which they can determine admissibility. We sought to ascertain which of those criteria and evaluations might explain the differences in admissibility rates. We recorded when admission criteria were specifically stated by the court to be "met" or "not met" by the testimony. Results are presented in Figures 2 and 3. Overall, we observe that courts are frequently evaluating all three types of expert testimony with the Federal Rules of Evidence requirements, but there is little use of reliability and the *Daubert* factors. Several differences are observed between the evaluations of police and psychologists. In addition to being the most frequently admitted type of expert in criminal cases, police were

⁴⁵ See Faigman, *supra* note 20; see also D. Michael Risinger, *Navigating Expert Reliability: Are Criminal Standards of Certainty Being Left on the Dock?*, 64 ALB. L. REV. 99 (2000).

positively evaluated on the many potential evaluative criteria. For example, police officers were generally found qualified to testify as experts and their testimony itself was generally found to assist the trier of fact. On the other hand, experimental psychologists were negatively evaluated in general. For example, courts reasoned that the testimony from experimental psychologists did not assist the trier of fact. Courts' assessments of jurors' common knowledge provides one explanation for courts' reasoning that police assist the trier of fact and experimental psychologists do not. Courts were significantly more likely to say experimental psychology was already in the jurors' common knowledge (37.8%) than police officers (8.1%).⁴⁶ If a judge determined that the jury already knew the content of the expert's testimony then that testimony would appear to be unhelpful to the trier of fact.

Although it is informative to investigate the topics judges discussed that were related to admissibility, determining which if any of these factors predicts the admissibility of police officers and psychologists is more informative. Regression models were built to determine the predictive utility of the Federal Rules of Evidence and of the *Daubert* factors. In this analysis, the outcome variable, or the thing that we are trying to predict was the appellate admission decision (higher values indicate the testimony was admitted). Predictor variables are the criteria that will potentially determine whether or not the testimony is admitted—or the value each expert is assigned on the outcome variable, admission. The predictor variables used in this analysis were the timing of the case (with higher values indicating the case was decided after *Daubert* and *Kumho*), indices of the influence of several evaluative criteria, and the interactions among the timing of the case and the indices, which determine if courts changed the criteria by which they determined admissibility over time. The potential evaluative criteria included the Federal Rules of Evidence requirements (relevance, qualifications, assisting the trier of fact, and prejudicial impact), the *Daubert* factors (general acceptance, falsifiability, peer review, and error rate), and general reliability.

The selected criteria significantly predicted admissibility for all three types of experts. The predictors in the model accounted for 42.6% of the variance in admission of expert testimony by police officers, 56.4% for clinical psychologists, and 75.5% for experimental psychologists. Timing of the case did not predict admission—police

⁴⁶ $\chi^2(4) = 44.23, V = .18, p < .001.$

officers, clinical psychologists, and experimental psychologists were not more or less likely to be admitted after *Daubert* or *Kumho*. The Rules' requirements account for most of the variance in admissibility. Assisting the trier of fact, qualifications, and relevance were the best predictors of admissibility. Overall, the *Daubert* factors and general reliability did not significantly predict admissibility. None of these factors individually predicted admissibility for police and experimental psychologists. However, general acceptance did predict admissibility for clinical psychologists. There was no change over time in courts' use of the evaluative criteria, as evidenced by the interactions failing to predict admission.

In summary, police officers and clinical psychologists provide experience-based expert testimony, and experimental psychologists rely more heavily on a body of research and their education, as observed by commentators. Police officers are admitted as experts at the appellate court level at a very high rate, more frequently than any other type of expert, in contrast to experimental psychologists who are often excluded.⁴⁷ Surprisingly, the rates of admission of police officers and psychologists were not affected by the *Daubert* and *Kumho* decisions. Police officers and psychologists are evaluated by the Rules' requirements—where police assist the trier of fact and experimental psychologists do not. Courts are not undertaking an analysis of the reliability of police officer testimony or psychologists when determining their admissibility.

II. POTENTIAL EXPLANATIONS FOR JUDICIAL DECISION MAKING ABOUT POLICE AND PSYCHOLOGISTS

Several factors could explain courts' positive evaluation of police officers and their apparent preference for admitting them over experimental psychologists. One motivating factor could be the desire to assure the successful prosecution of criminals, with a particular interest in removing drug dealers from the streets. If courts state that police officers are unreliable in some instances, it may become difficult to prosecute drug dealers because police reliability will always be challenged. Recent legal developments surrounding the reliability of fingerprinting is an example of the problems associated with the exclusion of typically powerful and heavily relied upon prosecutorial evidence.⁴⁸ On the other hand,

⁴⁷ Risinger also argued this point and presented evidence from cases discussing these types of experts as support. See Risinger, *supra* note 45.

⁴⁸ See *United States v. Llera Plaza*, 179 F. Supp. 492 (E.D. Pa., 2002); see also R. Erik Lillquist, *A Comment on the Admissibility of Forensic Evidence*, 33 SETON HALL L. REV.

eyewitness reliability experts typically testify for the defense to counteract the influence of a powerful and often unreliable piece of prosecution evidence, the eyewitness identification. This distinction implies that there may be a preferential treatment given to experts who testify for the prosecution as compared to those who testify for the defense.

In fact, prosecution experts were admitted significantly more often than defense proffered experts (see Table 1 for percentages). Not only is there a distinction between the admission of prosecution and defense experts overall, there is also a tendency for prosecution experts to be admitted more frequently than defense experts within each of the selected types of experts (see Table 1 for percentages). Police officers and clinical psychologists were both significantly more likely to be admitted when proffered by the prosecution. Although the difference between the admission rates of experimental psychologists testifying for the prosecution and the defense was not significant, the high rate of admission for these experts when they testified for the prosecution is worthy of note. This distinction in rates of admission between prosecution and defense proffered experts agrees with findings of Risinger, that criminal defendants are less lucky in expert testimony appeals.⁴⁹

Another reason for the overwhelming admission of police officers might be that judges, like laypersons and commentators, feel police officers are inherently reliable and psychologists are inherently unreliable. As for experimental psychologists, judges may truly believe that the problems with eyewitness reliability are so well known that it is in jurors' common knowledge, which would explain their persistent reasoning that this type of testimony does not assist the trier of fact. They may also truly believe that drug dealers are outside the ken of the average juror, requiring expert testimony in order to educate the jury.

One common explanation for these results would be that judges are unable to evaluate the reliability of expert testimony, including police officers and psychologists. From the data presented, it is clear that judges are not conducting *Daubert* reliability analyses of police or psychologists to determine their admissibility. Past research on judicial abilities to discern reliable from unreliable science indicates that judges may not be able to undertake this task without training in

1189 (2003); Michael J. Saks, *The Legal and Scientific Evaluation of Forensic Science (Especially Fingerprint Expert Testimony)*, 33 SETON HALL L. REV. 1167 (2003).

⁴⁹ See Risinger, *supra* note 45.

scientific methodology,⁵⁰ which may explain why reliability is not assessed for these experts. This has important implications for the admission of these experts and for the level at which they are scrutinized. There is a lack of empirical research investigating the reliability of police officers, or demonstrating the need for the content of their testimony regarding drug dealing. If judges were able to and did evaluate their reliability, police might not fare as well during the admission process. This may also be true of some forms of clinical psychological testimony that is not based on any empirical research. Ironically, the one type of testimony evaluated herein that has substantial empirical data regarding its reliability is experimental psychology, which is the most frequently excluded without regard to its reliability. Perhaps experimental psychologists would fare better in admission if judges actually weighed reliability more heavily in their decisions.

III. WHITHER THE STANDARDS?

So, the question remains: are the standards for the admissibility of expert testimony too high or too low in criminal cases? Based on our analyses of the treatment of police and psychological experts, the answer to the question will probably depend on who is answering the question. By taking an objective look at how courts are using their own standards, it is difficult to determine where the bar is set at all, let alone whether or not it is too high. It is not clear that courts are evaluating reliability as the Supreme Court suggested, though it is clear that *Daubert* analyses are not a significant feature of admissibility analyses. If viewed in light of the positions advanced by Professor Friedman in his symposium paper, one might actually conclude that courts are applying a sufficiency analysis of the type advanced by Professor Friedman. However, there is little evidence that the analysis applies a higher standard to prosecution evidence as advocated by Professor Friedman.

A. *Experimental Psychologists*

To determine if the standards are too high, too low, or just right we might ask the experts themselves. If we were to ask experimental psychologists and eyewitness-reliability experts in particular, they would probably say courts are excluding this type of testimony too often. Survey research that has probed eyewitness reliability experts'

⁵⁰ See the discussion of survey and experimental research on judicial abilities to evaluate reliability, *supra* at 1144-46. See also *infra* Part III.

opinions about the state of the research in the area indicates there is a consensus about the findings on a number of issues.⁵¹ The majority of experts believe that many important factors that might affect eyewitness reliability are not within jurors' common knowledge, and they agree that the purpose of experts in this area is to educate the jury and not to advocate for a particular party.⁵² Further evidence of the need for this type of testimony and that courts may be incorrect in assuming that it is already within the common knowledge of the jury, is provided by research on laypersons' understanding of eyewitness reliability. Surveys that have probed the factfinders' level of knowledge have shown that eyewitness reliability is outside of their common knowledge.⁵³ Additionally, mock jury research manipulating the presence of eyewitness expert testimony supports the contention that jurors are generally insensitive to the factors that indicate an eyewitness is unreliable, but expert testimony sensitizes the jury to these issues.⁵⁴

⁵¹ See Saul M. Kassin & K.A. Bardollar, *The Psychology of Eyewitness Testimony: A Comparison of Experts and Prospective Jurors*, 22 J. OF APPLIED SOC. PSYCHOL. 1241 (1992); see also Saul M. Kassin et al., *On the "General Acceptance" of Eyewitness Testimony Research: A New Survey of the Experts*, 56 AM. PSYCHOL. 405 (2001).

⁵² See Kassin et al., *supra* note 511.

⁵³ Brigham and Bothwell tested the common knowledge of jurors about identifications by asking participants to estimate correct identification rates from lineups and to predict the results of studies on identification, such as the confidence/accuracy relationship, the effects of stress, and the proper weight to be afforded to eyewitness testimony. Participants performed poorly at estimating research results and overestimated the rate of correct lineup identification. These results demonstrated the schism between jurors' common knowledge of eyewitness accuracy and the expert knowledge derived from research on identification. John Brigham & R. Bothwell, *The Ability of Prospective Jurors to Estimate the Accuracy of Eyewitness Identifications*, 7 L. & HUM. BEHAV. 19 (1983). In another study, jurors' knowledge of eyewitness identification was directly compared to experts' knowledge. See Kassin et al., *supra* note 511. Participants answered true, false, or don't know to questions previously asked of experts. Disagreement between experts and novices was observed on fifteen of the twenty-one items in the survey, including questions about lineup procedures, instructions, confidence, gender effects, hypnosis, time of exposure to the target, memory, and cross-racial identification. These areas of disagreement indicate a lack of knowledge of eyewitness identification issues by the jurors relative to the experts. See Kassin et al., *supra* note 511. The authors in both studies concluded that there is a need for expert testimony on eyewitness issues to educate the jury.

⁵⁴ See Brian L. Cutler et al., *Expert Testimony and Jury Decision Making: An Empirical Analysis*, 7 BEHAV. SCI. & L. 215 (1989); see also Brian L. Cutler et al., *Nonadversarial Methods for Sensitizing Jurors to Eyewitness Evidence*, 20 J. OF APPLIED SOC. PSYCHOL. 1197 (1990); Brian L. Cutler et al., *The Eyewitness, the Expert Psychologist, and the Jury*, 13 L. & HUM. BEHAV. 311 (1989).

B. Police Officers

If we were to ask police officers whether they believed the standards applied to the admission of their testimony were too high or too low, the likely response would be that “this standard is just right!” As one of the most frequently admitted types of experts, how could they complain? The limited commentary that has been critical of their unquestioned admission indicates that this preferential treatment may be inappropriate. However, we know of no empirical research that has addressed the reliability of police officer testimony in this area that would support this contention.

C. Clinical Psychologists

Clinical psychologists might have a similarly positive opinion about the treatment of their own testimony, at least relative to their counterparts, the experimental psychologists. However, if we were to ask legal scholars about clinical psychological testimony, the concerns that have been expressed about this type of testimony would indicate that these types of experts should be evaluated more critically. One of the major focal points of the post-*Daubert* commentary on psychological experts was the effect *Daubert* would have on the admissibility of experts testifying about psychological syndromes. The main criticism of syndromes used as evidence is that they have not been scientifically validated or are unreliable.⁵⁵ The evidence of their existence has been provided mostly by clinicians’ observations in their therapeutic practices. Little empirical research has been conducted on these syndromes to determine if their associated symptoms occur significantly more often in people who have suffered a relevant trauma than in people who have experienced no trauma. Because, in this view, syndromes generally lack scientific validity, many commentators predicted that they would not survive a *Daubert*-type scientific reliability analysis and would, therefore, be inadmissible after *Daubert*.⁵⁶

⁵⁵ See Teresa S. Renaker, *Evidentiary Legerdemain: Deciding When Daubert Should Apply to Social Science Evidence*, 84 CAL. L. REV. 1657 (1996); see also Daniel W. Shuman & Bruce D. Sales, *The Impact of Daubert and its Progeny on the Admissibility of Behavioral and Social Science Evidence*, 5 PSYCHOL. PUB. POL’Y & L. 3 (1999); Jennifer Sparks, *Admissibility of Expert Psychological Evidence in Federal Courts*, 27 ARIZ. ST. L.J. 1315 (1997).

⁵⁶ See Duncan, *supra* note 35, see also Faigman & Wright, *supra* note 35. For example, Richardson and colleagues argued that it would be difficult for psychological syndrome evidence to meet the *Daubert* factors of falsifiability and error rate, but that courts frequently rely on general acceptance when evaluating the admissibility of this type of testimony. James Richardson et al., *The Problems of*

However, the need for this testimony to educate the jury on several sensitive issues would indicate that clinical testimony should be admitted more often than it is. Survey research on jurors regarding their knowledge of child sexual abuse and rape indicates that important psychological effects of these crimes are not within their common knowledge.⁵⁷ Jurors systematically lacked knowledge in these areas, and the experts agreed that expert testimony would be useful to educate the jury. This would seem to be a domain in which Professor Friedman's emphasis on evidence sufficiency, helpfulness and jury helpfulness would support high rates of admissibility.

Applying Daubert to Psychological Syndrome Evidence, 79 JUDICATURE 10, 10-11 (1995). Faigman and Wright argued that, of all the *Daubert* factors, Battered Woman Syndrome would only be able to satisfy the general acceptance requirement and that it is not helpful to the trier of fact. See Faigman & Wright, *supra* note 35. Morse argued pre-*Kumho* that Battered Woman Syndrome is not scientific testimony and would not be evaluated under the *Daubert* factors. Instead, the qualifications of the expert, the relevance, and the assistance provided to the trier of fact by the expert testimony should determine the admissibility of syndrome testimony. Allison Morse, *Social Science in the Courtroom: Expert Testimony and Battered Women*, 21 HAMLINE L. REV. 287, 295-12 (1998).

⁵⁷ Similar to Kassin and Barndollar, Kovera and Borgida also surveyed jurors and compared their responses to experts. Experts in child sexual abuse were surveyed on the demographic characteristics of victims and offenders, the typical behaviors of victims, the typical characteristics of offenders, the cognitive capacity of child victims, and the typical correlates of abuse. Laypersons' responses did not correspond to expert responses on measures relating to children's memories, the lack of offender information, and the typical responses to sexual abuse victimization. Expert testimony could inform potential jurors on these issues as information the expert possessed was outside the common knowledge of the laypersons. Margaret B. Kovera & Eugene Borgida, *Expert Testimony in Child Sexual Abuse Trials: The Admissibility of Psychological Science*, 11 APPLIED COGNITIVE PSYCHOL. 105, 108-12 (1997).

In addition to investigations of the common knowledge of jurors about eyewitness reliability and child sexual abuse, research also has been conducted on jurors' knowledge of rape. Frazier and Borgida gave the Sexual Assault Questionnaire (SAQ), a questionnaire designed to measure knowledge about rape, and seven additional items drawn from actual cases determining the admissibility of rape trauma syndrome to expert social workers, undergraduates, and university staff. Non-experts scored lower on the SAQ than experts, indicating that the non-experts had less knowledge about rape than the experts. Non-experts' lacked knowledge about the likely victims of rape, and non-experts demonstrated more endorsement of rape myths. However, non-experts were knowledgeable about the definition of rape, the frequency of rape, the reluctance for victims to report rape, and rape recovery. The authors concluded that expert testimony or jury instructions would be useful to educate the non-experts about those measures on which they demonstrated a lack of general knowledge. Patricia Frazier & Eugene Borgida, *Juror Common Understanding and the Admissibility of Rape Trauma Syndrome*, 12 L. & HUM. BEHAV. (1988).

D. Future Research Directions

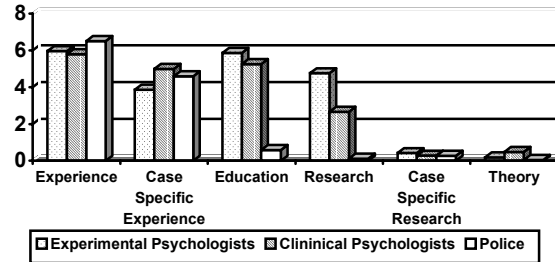
The limitations and results of this research suggest several future research directions. Because of the selection bias in our data, it could be argued that the results are not representative of trial court decision making as a whole. Therefore, a similar systematic, empirical examination of trial court opinions is recommended. These results could be compared to the results of our research to provide a fuller picture of judicial decision-making about expert testimony. The results of the small body of past research on judges' abilities to evaluate scientific evidence are consistent with their apparent lack of reliance on reliability as an admission criterion. Because of these findings, more empirical research on judicial abilities to evaluate reliability should be undertaken. Empirical research investigating judges' reasoning in the admission of police officers and psychologists would further illuminate the distinctions courts are making between these two types of testimony.

CONCLUSIONS

The *Daubert* and *Kumho* decisions attempted to provide the appropriate standards for judges to determine the admissibility of expert testimony, and yet these decisions also raised many questions about the applications of these standards to expert testimony. In particular, concerns arise about the appropriateness of a differential application of these standards to different types of expert testimony. An examination of police officers and psychologists provides evidence that some testimony is held to very exacting standards and other testimony is admitted with very little scrutiny. In general, courts appear to be proceeding in a manner consistent with Friedman's arguments. They are definitely focusing on whether the testimony assists the trier of fact and whether the expert is qualified. In addition, reliability is far from the final word in the analysis of admissibility. In fact, the research presented here indicates that reliability is not a consideration at all in the admission decision. Although these results are consistent with well reasoned legal arguments, the sharp distinction between police and psychologists in the absence of a reliability analysis is disconcerting. Even relying on helpfulness, courts may be making decisions that are inconsistent with the informational needs of the factfinder, the opinions of the experts on the need for their testimony, and the extent of our knowledge about the reliability of their respective testimonies. The fact that the appropriateness of the standards that are being used depends on the perspective taken indicates that the reasons for these

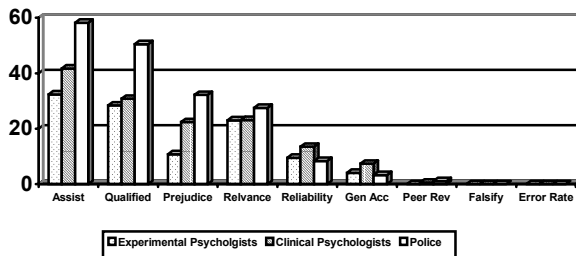
distinctions need to be evaluated further. This is a clear call for further research into judicial decision making about expert testimony and into the courts' approach to science.

Figure 1: Sources of Knowledge for the Expert



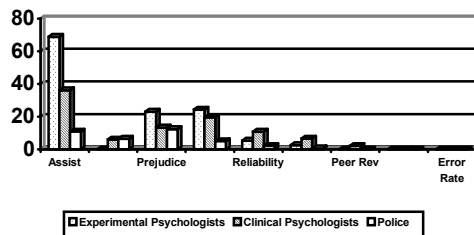
Note: Ratings of importance of each knowledge source on a scale of 0-9, with 0 = never mentioned, 1 = not at all important, and 9 = the most important. Experience was significantly more important for police officers than for either type of psychologist, $F(2,653) = 21.08$, $p < .001$. Case specific experience was significantly less important for experimental psychologists than for both police and clinical psychologists, $F(2,653) = 5.80$, $p < .001$. Education was more important for experimental psychologists than for clinical psychologists and police, and it was more important for clinical psychologists than for police, $F(2,652) = 815.36$, $p < .001$. Reliance on a body of research was more important for experimental psychologists than for clinical psychologists and police, and it was more important for clinical psychologists than for police, $F(2,654) = 148.49$, $p < .001$. Theory was equally important for both types of psychologists, but it was more important for clinical psychologists than for police, $F(2,653) = 8.90$, $p < .001$.

FIGURE 2: PERCENTAGE OF CASES STATING THE CRITERIA WERE MET BY THE TESTIMONY



Note. Significant differences among the types of testimony were observed for assisting the trier of fact, $X^2(2) = 23.63, V = .19, p < .001$, qualifications, $X^2(2) = 27.76, V = .21, p < .001$, and prejudicial impact, $X^2(2) = 16.56, V = .16, p < .001$. All other differences were non-significant.

FIGURE 3: PERCENTAGE OF CASES STATING THE CRITERIA WERE NOT MET BY THE TESTIMONY



Note. Significant differences among the types of testimony were observed for assisting the trier of fact, $X^2(2) = 107.17$, $V = .40$, $p < .001$, relevance, $X^2(2) = 32.27$, $V = .22$, $p < .001$, reliability, $X^2(2) = 18.0$, $V = .17$, $p < .001$, general acceptance, $X^2(2) = 14.63$, $V = .15$, $p < .01$, and peer review, $X^2(2) = 7.87$, $V = .11$, $p < .05$. All other differences were non-significant.

Table 1: Admission Rates for Prosecution and Defense Experts

Percentage of experts admitted testifying for the prosecution versus the defense		
	Prosecution	Defense
Police Officers ^a	91.2 %	0 %
Clinical Psychologists ^b	74.6 %	26.5 %
Experimental Psychologists ^c	42.9 %	19.2 %
Total ^d	88.6 %	24.4 %

^a Police officers were significantly more likely to be admitted when testifying for the prosecution, $X^2(1) = 101.72$, $V = .62$, $p < .001$.

^b Clinical psychologists were significantly more likely to be admitted when testifying for the prosecution, $X^2(1) = 67.95$, $V = .47$, $p < .001$.

^c Experimental psychologists were not significantly more likely to be admitted when testifying for the prosecution, $X^2(1) = 1.96$, $V = .17$, $p > .05$.

^d Experimental psychologists were not significantly more likely to be admitted when testifying for the prosecution, $X^2(1) = 358.50$, $V = .55$, $p < .001$.