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Judging Psychology Experts: Can Judges and Attorneys Distinguish Between Clinical and Experimental Psychologists?

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JUDGING PSYCHOLOGY EXPERTS: CAN JUDGES AND ATTORNEYS DISTINGUISH BETWEEN CLINICAL AND EXPERIMENTAL PSYCHOLOGISTS?

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Shari Schwartz

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To: Dean Kenneth G. Furton
College of Arts and Sciences

This dissertation, written by Shari Schwartz, and entitled Judging Psychology Experts: Can Judges and Attorneys Distinguish Between Clinical and Experimental Psychologists?, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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The dissertation of Shari Schwartz is approved.

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DEDICATION

This work is dedicated to the many judges and attorneys who have devoted their professional lives to the pursuit and administration of justice. These individuals have incredibly challenging jobs with enormous responsibility. After all, ensuring that our legal rights are protected requires expert-level knowledge, in many subjects, that is far beyond the scope of the study and practice of law. Acquiring such broad expertise is not an easy accomplishment.

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ABSTRACT OF THE DISSERTATION

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A trial judge serves as gatekeeper in the courtroom to ensure that only reliable expert witness testimony is presented to the jury. Nevertheless, research shows that while judges take seriously their gatekeeper status, legal professionals in general are unable to identify well conducted research and are unable to define falsifiability, error rates, peer review status, and scientific validity (Gatkowski et al., 2001; Kovera & McAuliff, 2000). However, the abilities to identify quality scientific research and define scientific concepts are critical to preventing "junk" science from entering courtrooms. Research thus far has neglected to address that before selecting expert witnesses, judges and attorneys must first evaluate experts' CVs rather than their scientific testimony to determine whether legal standards of admissibility have been met. The quality of expert testimony, therefore, largely depends on the ability to evaluate properly experts' credentials. Theoretical models of decision making suggest that ability/knowledge and motivation are required to process information systematically. Legal professionals (judges and attorneys) were expected to process CVs heuristically when rendering expert witness decisions due to a lack of training in areas of psychology expertise.

Legal professionals' (N = 150) and undergraduate students' (N = 468) expert witness decisions were examined and compared. Participants were presented with one of two versions of a criminal case calling for the testimony of either a clinical psychology expert or an experimental legal psychology expert. Participants then read one of eight curricula vitae that varied area of expertise (clinical vs. legal psychology), previous expert witness experience (previous experience vs. no previous experience), and scholarly publication record (30 publications vs. no publications) before deciding whether the expert was qualified to testify in the case. Follow-up measures assessed participants' decision making processes.

Legal professionals were not better than college students at rendering quality psychology expert witness admissibility decisions yet they were significantly more confident in their decisions. Legal professionals rated themselves significantly higher than students in ability, knowledge, and motivation to choose an appropriate psychology expert although their expert witness decisions were equally inadequate. Findings suggest that participants relied on heuristics, such as previous expert witness experience, to render decisions.

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Literature Review

The veracity of expert witness testimony and the role experts should have in court proceedings have been the subject of debate for centuries. Expert witnesses have been criticized for taking on the role of an advocate for one side or the other depending on who has hired them (Anderten, Stalcup, & Grisso, 1980; Foster, 1897; Otto, 1989; Schetky & Colbach, 1982). For example, when hired by defense counsel in a criminal matter, it may become the mission of the expert to present scientific testimony that supports the defendant's acquittal and vice versa (Anderten, Stalcup, and Grisso, 1980; Foster, 1897; Schetky & Colbach, 1982). Research shows that the existence of dueling psychology experts has lead to monikers such as "hired guns," (Cooper & Neuhaus, 2000; Gutheil & Appelbaum, 1982; Homant & Kennedy, 1987; McCloskey & Egeth, 1983; Otto, 1989; Swenson, Nash, & Roos, 1984) and "whores of the court" (Hagan, 1997). However, it may be the case that biased expert testimony is unintentional (Otto, 1989). The expert may believe that s/he has drawn unbiased conclusions on the basis of incontrovertible scientific evidence. Moreover, the expert may believe that because s/he has been hired by an attorney and appointed by the judge, s/he must actually be an expert in the area of testimony. Thus, it appears that the quality of expert witness testimony may depend on attorneys' and judges' decisions as to whether an expert witness is qualified to provide testimony in a given area or subject matter.

One of the trial judge's primary responsibilities is to serve as gatekeeper in the courtroom to ensure that a defendant's constitutional rights are protected during the legal process. A key role of the judge-as-gatekeeper is to render expert witness testimony

admissibility decisions (Cutler & Kovera, 2011; Gatkowski et al., 2001; Kovera & McAuliff, 2000; McAuliff, 2009; Vidmar, 2011). Judges' initial expert witness admissibility decisions are derived from experts' curricula vitae that are submitted by attorneys who have retained the experts. The inability of judges and attorneys to identify whether a psychologist, for example, possesses the requisite expertise in a given area of specialty could lead to allowing the psychologist to provide expert witness testimony in an area in which s/he is not truly an authority. Importantly, allowing pseudo-experts to testify on subject matter in which they lack authentic expertise is an egregious violation of legal standards set forth by the Supreme Court of the United States as the standards are in place to prevent junk science in U.S. courtrooms. If the judge allows the jury to hear a pseudo psychology expert testify, jurors may assume that the psychologist is a specialist in the subject area simply because the judge has allowed the testimony to be presented (Schweitzer & Saks, 2009). This, in turn, could influence verdict decisions and may have negative implications for the American justice system.

In the United States, judges' expert witness admissibility decisions are governed by the legal requirements for the admissibility of expert testimony. There are two distinct legal approaches for judges to use, depending on jurisdiction, when assessing the admissibility of expert witness testimony: the *Frye* standard (*Frye v. United States*, 1923) and the *Daubert* standard (*Daubert v. Merrell Dow Pharmaceuticals*, 1993). Although judges in most states use the *Daubert* standard to guide expert witness testimony admissibility decisions, it is important to note that some states, such as Florida, continue to use the *Frye* standard.

The *Frye* Standard

In *Frye v. United States,* (1923)*,* the issue of expert testimony admissibility arose when counsel for second degree murder defendant, James Frye, introduced expert testimony on the results of a systolic blood pressure deception test administered by psychologist, William Marston. Frye asserted that passing the test was proof of his innocence, however, the court denied the motion reasoning that the test and the science behind it were not "generally accepted" as reliable by the relevant scientific community. According to the *Frye* decision*,* in order to determine whether a particular scientific test and its results are generally accepted thus admissible, the findings and conclusions must be generally accepted within its scientific community.

Although there appears to be some jurisdictional variation in what has since been called the Frye test/standard, in principle the Frye test consists of a four-prong examination when vetting experts. They are: 1) whether the witness is competent in the field of expertise that s/he aims to address at trial, specifically whether the expert witness possesses the requisite skill, training, education, knowledge, and/or experience from which it can be assumed that the expert's professional opinion or imparted information is reliable; 2) that the expert's testimony is based on a scientific principle or procedure which is established and has achieved general acceptance among scientists in the relevant scientific community; 3) that the expert's testimony be useful in assisting the jury to better understand the evidence in the case; and 4) that the expert's opinions must be case-specific and relevant to the case before the court (*Frye v. United States*, 1923).

The *Daubert* Standard

In *Daubert v. Merrell Dow Pharmaceuticals* (1993), the plaintiffs (Jason Daubert and Eric Schuller) sued the defendant (Merrell Dow Pharmaceuticals) for damages related to birth defects. The plaintiffs alleged that their birth defects were caused by medication manufactured by the defendant. The drug was taken by the plaintiffs' mothers while each was pregnant. Merrell Dow Pharmaceuticals moved to have the case heard in federal court because their expert witness submitted documents showing that no published scientific study demonstrated a link between the drug and birth defects. The defendant, Merrell Dow Pharmaceuticals, moved for summary judgment of the case and the court granted their motion (*Daubert v. Merrell Dow Pharmaceuticals, Inc.,* 1993).

Eventually, the case made its way to the Supreme Court of the United States and the outcome resulted in a new four-prong standard of admissibility for expert testimony: 1) that the judge is the gatekeeper in the courtroom and s/he must determine ultimately whether scientific testimony is admissible; 2) the judge should rule as to the relevance and reliability of the proffered scientific testimony (that is, the judge must find it more likely than not that the expert's methods are reliable and are applied reliably to the facts of the case); 3) the scientific evidence must be generally accepted by the relevant scientific community such that it must be accompanied by a known error rate, subjected to the rigors of peer review thus published; and 4) that the theory or technique is testable, falsifiable, and refutable (*Daubert v. Merrell Dow Pharmaceuticals, Inc.,* 1993).

It is important to point out that there appears to be a critical difference between *Frye* and *Daubert* such that the latter does not explicitly state that it takes into consideration the expert's credentials; the four prongs refer only to the testimony the

expert is to provide. However, the first prong in *Frye* refers directly to the proffered expert's skill, training, education, knowledge, and experience in order to conclude that s/he is qualified to provide reliable expert witness testimony. It stands to reason that in order to be an effective gatekeeper of expert witness *testimony* judges must take into consideration the expert's *qualifications* to provide testimony in a given area.

When applied to the context of psychology expert testimony, the legal standards that guide judges' expert witness admissibility decisions emphasize that the psychologist should be competent/trained in his/her field of expertise and that his/her testimony should be on information that is accepted by his/her scientific community. One important fact neglected by past research, and arguably mismatched between *Frye/Daubert* and its real-world application, is that judges are rarely exposed to scientific testimony of the potential expert before rendering admissibility decisions. Rather, judges base their initial admissibility decisions solely on potential expert witnesses' CVs prior to hearing experts' testimony. Similarly, attorneys often infer whether a potential expert is suitable for their case from the expert witness's CV. As such, legal professionals are presented with the difficult challenge of inferring from those CVs whether legal standards of expert witness admissibility are met.

There is evidence that judges do not always fulfill successfully their gatekeeper-role in keeping pseudo psychology experts out of the courtroom. Rowe (1992) recounted an example of a "psychologist" who was retained as an expert witness in numerous Michigan homicide cases. The expert's role was to testify to various defendants' future dangerousness. Eventually, an opposing defense attorney conducted an investigation into the "psychologist's" expertise and found that the expert had earned a doctorate in music

rather than psychology. Although it is a dramatic example, Rowe asserts that pseudo psychology experts are retained and accepted as expert witnesses fairly frequently. As such, it seems clear that judges and attorneys may require assistance in identifying suitable psychology expert witnesses. An expert trained in an area other than that in which s/he is appointed to provide testimony cannot possibly meet the criteria set forth in *Frye* and/or *Daubert.* In order to help judges maximize appropriate judicial gatekeeping regarding psychology experts, the process by which judges and attorneys determine whether a psychologist is an appropriate expert in a given area of specialty must first be examined.

Vidmar (2011) points out that the body of empirical research on judicial decision making is incredibly small despite the crucial role judges play in meting out justice. Schauer (2010) suggests that research should address whether, with regard to specific legal tasks such as hiring and admitting expert witnesses, judges and attorneys differ from laypeople in task performance and decision making. The author criticizes that much empirical research on legal decision making is conducted on laypersons that do not have experience rendering critical legal decisions. Consequently, it is difficult to generalize the findings to judges and attorneys. According to Schauer (2010), without comparing the performance of legal professionals to laypersons it is virtually impossible to determine the most influential factors in legal professionals' versus laypersons' decisions. It may be that attending law school, then practicing law, and then presiding over trials affects specific and critical legal decisions, such as choosing and admitting expert witnesses, in a divergent manner (Schauer, 2010) compared to laypersons without legal training and experience.

Empirical Research on Judicial Decision Making

Kovera and McAuliff (2000) examined whether judges were able to distinguish between good and bad scientific psychological evidence, and whether this ability differed depending on whether judges had previous scientific training. In their study, a sample of judges read a description of an expert witness's study on gender and stereotyping to be presented in a mock sexual harassment trial. Judges were then asked to render an admissibility decision. The researchers manipulated the peer review status and internal validity of the study on which their stimulus expert witness testimony was based. In a post hoc questionnaire, some judges in the sample reported that they had received prior scientific and/or statistics training. Findings supported their hypothesis that judges with scientific training were better able to distinguish between good and bad science than judges who had no prior scientific training. However, only 17% of the total sample rated the expert's testimony as admissible regardless of the quality of the science. The researchers concluded that rather than poorly conducted research being admitted, high quality psychological science testimony is likely excluded in many cases (Kovera & McAuliff, 2000).

Gatkowski et al. (2001) surveyed 400 state court judges from across the United States to ascertain judges' opinions of the utility of the *Daubert* criteria and whether these enhanced judges' admissibility decisions. Results showed that regardless of the admissibility standard followed in the judge's jurisdiction (*Frye* or *Daubert*), judges were in support of their gatekeeper status as defined in *Daubert*. However, many judges lacked the ability to define properly falsifiability and error rates, and assigned great weight to the idea of general acceptance as a criterion for admissibility. The researchers noted that

judges took their role as gatekeepers very seriously indicating that judges placed a high level of importance on rendering sound decisions in the interest of administering justice fairly and equitably. Nevertheless, if judges are not clear on the concepts of falsifiability, error rates, peer review status, and scientific validity (Kovera & McAuliff, 2000), then sound admissibility decisions made on the basis of the quality of the science are jeopardized. Gatkowski and colleagues concluded that in order for judges to make optimal admissibility decisions, they must have the ability to assess accurately the information presented to them.

Faigman and Monahan (2009) point out an additional hurdle to judges being adequate gatekeepers in preventing junk psychological science in the courtroom. Specifically, the authors noted that the courts face a challenge in matching a psychology expert's qualifications, in terms of experience, with the substantive nature of his/her testimony. Differences in state requirements in terms of licensing, certification, training, and precisely what constitutes expertise in a given area make it especially challenging for the court to determine whether a psychology expert is qualified to provide testimony in a given area. Furthermore, a variety of psychology graduate degrees make it even more difficult for a non-psychologist to ascertain whether an expert is qualified to testify in a given area of psychology. Therefore, scholars have suggested that courts may rely on previous expert witness experience to determine whether or not to allow a psychology expert to testify (Faigman & Monahan, 2009), regardless of what type of testimony the expert provided in previous cases. This suggests that judges may rely firmly on criteria such as prior experience as an expert witness, which appear to be outside of criteria set forth in *Frye* and *Daubert*. Importantly, Faigman and Monahan's arguments imply that

many judges base their admissibility decisions on their assessment of experts' prior experience testifying rather than their actual scientific and professional credentials. This is an important consideration for the proposed study.

Empirical Research on Mock Jurors' Expert Witness Perceptions

Empirical research on the influence of expert witnesses' credentials on mock-jurors' decisions is more readily available than research on judges' and attorneys' expert witness perceptions. For example, Cooper, Bennett, and Sukel (1996) examined the effects of complex scientific testimony and the expert's credentials on mock jurors' perceptions. Expert credentials were varied based on prestige of the university from which each expert obtained their degrees, the prestige of the university where each was employed, the number of publications in their areas of expertise, and whether they had served as a scientific journal editor. Both of the proffered experts worked in academic settings. Factors such as university prestige, publication rate, and serving as a scholarly journal editor were believed to be cues to expertise conducive to the use heuristics in processing the information. Linguistic complexity of the testimony was manipulated to elicit systematic processing. Importantly, the authors manipulated expert witness qualifications in the form of experts' credentials as opposed to the science experts were testifying about.

A sample of community members serving as mock jurors watched one of four videotapes of the expert's testimony that varied in level of testimony complexity and the expert's credentials. When testimony was highly linguistically complex, participants placed greater weight on the expert's credentials in rendering verdict decisions than when the testimony was less linguistically complex. The authors found that when the testimony

was difficult to understand participants relied on peripheral cues to witness credibility, such as the expert's academic and professional experience, to render a verdict. When the testimony was less complex, participants made their decisions based on the expert's testimony (central cue; systematic processing) rather than his credentials. Similar to Kovera and McAuliff (2000), Cooper et al. concluded that their findings could be explained by the theoretical models of information processing put forth by Chaiken (1980; Heuristic-Systematic Model) and Petty and Cacioppo (1986a; Elaboration Likelihood Model).

Although no study to date has directly compared judges' and layperson's decision-making regarding expert witness testimony in the court room, the few studies described suggest that judges may not be better than laypersons at discriminating between poorly conducted and well conducted scientific research (Gatkowski et al., 2001; Kovera & McAuliff, 2000; McAuliff & Kovera, 2008). These findings are troubling given that judges' inability to distinguish between good and bad research are typically part of high-stakes legal decisions. Moreover, these findings suggest that judges may be unable to distinguish between qualified experts and pseudo experts given their inability to identify poorly conducted research.

Theoretical Models Used to Explain Judicial Decision Making

Although Kovera and McAuliff (2000) did not test directly formal psychological theories of decision making, they suggested that judicial reasoning may be best explained by formal models of information processing such as the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986a) and the Heuristic-Systematic Model (HSM; Chaiken, 1980). That is, judges' admissibility decisions with regard to psychological science

testimony may be moderated *both* by their motivation to scrutinize the testimony *and* their ability to analyze systematically such evidence (Kovera & McAuliff, 2000).

Similar to Kovera and McAuliff (2000), other researchers who have investigated how laypersons make decisions regarding the veracity of expert witness testimony posit that two major information processing theories can help explain their findings (Cooper, Bennett, & Sukel 1996; Cooper & Neuhaus, 2000; Cutler & Kovera, 2011). They are the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986a) and the Heuristic-Systematic Model (HSM; Chaiken, 1980). Each explains information processing along an elaboration continuum that ranges from implicit, unconscious, automatic processes to conscious, explicit, controlled processes (Chaiken & Trope, 1999). For example, automatic processing may be inferred if little cognitive effort is expended to process any provided information. Controlled processing may be inferred when individuals exert considerable cognitive effort to arrive at a decision. The factors that determine which type of processing individuals are likely to engage include, but are not limited to, motivation, ability, and the particular situation (Chaiken & Trope, 1999; Petty & Cacioppo, 1986a; Petty & Cacioppo, 1990; Petty, Wheeler, & Tormala, 2003). Because the two models are relatively similar and make similar predictions both are discussed in the next section.

Elaboration Likelihood Model of persuasion. In a well-known dual-process model of persuasion, the Elaboration Likelihood Model (ELM), Petty and Cacioppo (1986a) describe the two processes as the central and the peripheral route to persuasion. The central route to persuasion requires systematic, effortful cognitive processing whereas the peripheral route typically entails automatic, intuitive information processing.

The model has traditionally been applied to contexts such as advertising and politics such that an advertiser's ability to persuade consumers to purchase a service or product will have a direct impact on generated sales revenue. However, it can also be applied to a multitude of social judgment and inference contexts such as determining whether a psychologist is an expert on a particular social science topic. According to researchers, whether a person engages in intuitive versus effortful processing of a persuasive message depends on his/her motivation, how personally relevant the message is to him/her, and his/her ability to engage in effortful processing (Petty & Cacioppo, 1986a; Petty & Cacioppo, 1986b; Petty, Wheeler, & Tormala, 2003).

The researchers postulate that the two most influential factors in determining which route of information processing an individual will take are whether the individual is capable of judicious evaluation of the message (ability; Petty, Wells, & Brock, 1976), and whether s/he has the desire to process the message (motivation; Petty & Cacioppo, 1979). Someone who engages in central route processing is more likely to have a high need for cognition (i.e., they enjoy thinking about and reflecting deeply on issues; Cacioppo & Petty, 1982), and is less likely to be persuaded by peripheral cues such as the attractiveness of an expert (Petty & Cacioppo, 1986a; Petty & Cacioppo, 1990). Moreover, s/he is likely to scrutinize the information closely and, in the case of a judge's admissibility decision, will examine the expert's key qualifications.

On the other hand, an individual who is either unwilling or unable to process information on a deeper level is most likely someone with a low need for cognition (Cacioppo & Petty, 1982). This individual is easily persuaded by qualities such as the attractiveness of the expert and the perceived appeal of the expert's message (Petty &

Cacioppo, 1986a). Low need-for-cognition individuals may possess the ability to engage in central processing but will do so only if there is some personal motivation involved. Likewise, high need-for-cognition individuals do not always process information centrally. They may use peripheral cues when the message is not highly important or relevant to them. This may be due to a lack the motivation to use valuable cognitive resources or a lack of ability to evaluate the information centrally.

Heuristic-Systematic Model of information processing. Similar to the ELM (Petty & Cacioppo, 1986a; Petty and Cacioppo 1986b), the Heuristic-Systematic Model (HSM; Chaiken, 1980) is a dual-process theory that explains how individuals process information. The main difference between the HSM and the ELM is that the ELM posits that there is an inverse relationship between central and peripheral route processing. For example, as one type of processing increases, the other type decreases. However, according to the HSM, the two types of processing can occur independently or simultaneously.

One end of the HSM entails analytical, comprehensive processes that are referred to as systematic processing. The other entails automatic, intuitive processes referred to as heuristic processing. Individuals who engage in systematic processing will take into account detailed source characteristics (i.e., reliability of the source), and the content of the message to make a decision while exerting considerable cognitive effort (Chaiken, 1980). Heuristic processing places little emphasis on detailed information processing and instead facilitates decision-making by using mental shortcuts based on availability and representativeness while exerting little cognitive effort (Chaiken, 1980; Tversky & Kahnemann, 1974). Research shows that individuals rely on heuristics to make decisions

when the issue under consideration is insignificant or irrelevant to the decision-maker (Chaiken, 1980; Eagly & Chaiken, 1993), or when the decision-maker faces a time constraint that does not allow for systematic processing (Ratneshwar & Chaiken, 1991). According to Chaiken (1980), decision-makers relying on heuristics may accept information that they may otherwise have correctly rejected had they engaged in more effortful systematic processing.

Arguably, judges and attorneys are likely to score high on Cacioppo and Petty's (1982) Need for Cognition Scale and are, therefore, likely to enjoy engaging in deliberate, effortful processing of information. However, research suggests that judges must not be only be motivated to examine the information carefully (e.g., Chaiken & Maheswaran, 1994; Petty et al., 1981), but also have the ability to adequately process the information to engage in systematic processing (Ratneshwar & Chiaken, 1991). Based on the Gatkowski et al. (2001) findings that judges lack the ability to define properly falsifiability and error rates, and Kovera and McAuliff's (2000) finding that judges keep good science out of the courtroom, it appears judges lack at least one of the two criteria necessary for the central route to information processing: the ability to evaluate properly psychology expert witnesses' credentials. Specifically, judges who lack the knowledge thus ability to properly evaluate expert witness credentials (e.g., publication record, area of expertise) may unduly base their decisions on peripheral, heuristic cues (e.g., expert's prior experience testifying). The current study, therefore, examined the relative importance of central cues (expert's area of training and publication record) and a peripheral cue (expert's prior testimony record) on judges' expert witness admissibility decisions.

Judges' Professional Expertise

It should be noted that legal professionals may not be in a position to evaluate properly psychology experts' credentials because they lack psychology training/knowledge. According to Kahneman and Klein (2009), almost all professionals, regardless of domain, are called upon to perform tasks that they have not mastered perhaps due to a lack of exposure to the task or a lack of specialized training in that task. Thus professionals possess what the researchers refer to as "fractionated" expertise. That is, professionals may apply their knowledge and skills to certain aspects of their jobs with great success, however, when they attempt to apply the same knowledge and skills in the exact same way to other aspects of their jobs, the results can be suboptimal. Kahneman and Klein (2009) believe that fractionated expertise typifies the essence of expertise rather than signifying an exception to the rule of expertise. One problem of fractionated expertise is that it may lead to overconfidence in decision-making on issues for which professionals have little or no skill (Kahneman & Klein, 2009) as may be the case of legal professionals distinguishing successfully one type of psychology expert from another.

Shanteau (1992) examined good and poor work-related performance of experienced professionals in many occupations and found that court judges, among others, were particularly susceptible to rendering suboptimal decisions. Shanteau's work was driven by an interest in examining two contradictory schools of thought on expertise development and experts' decision making ability. One view is that experts' decisions are often flawed as a result of the biasing effects of heuristics on judgments. The other is that experts' cognitive functioning sets their performance above that of novices' performance

on every level. Shanteau developed the Theory of Expert Competence that incorporated the views of both "heuristics and biases" researchers and cognitive science researchers such that acquiring a level of expertise does not guarantee that professionals' decisions are flawless. Shanteau posits that experts' competence depends on the task they are performing.

Characteristics of tasks that are conducive to expert competence include predictable, routine problems in which feedback, decision aids, static stimuli, and objective analyses are available (Shanteau, 1992). Shanteau found that court judges are among those who are routinely faced with unique tasks in a dynamic environment where decision aids are rare, feedback is not readily available, and they expect to make few if any errors in their decisions. Interestingly, he also identified clinical psychologists as experts who were prone to errors in judgment and decision making. These findings highlight that examining domain specific tasks in individuals who routinely perform these tasks is critical in identifying barriers to competent task performance, such as properly evaluating psychology experts' credentials.

In addition to judges, the current study includes a sample of criminal trial attorneys (both defense and prosecutors). Other than being a convenience sample as they were more accessible than judges, attorneys were included because they are critical decision makers in the process that allows experts to testify in a court of law. That is, attorneys must first retain and submit a potential expert to the judge who then renders an initial admissibility decision on the basis of the expert's experience and credentials. Attorneys are expected to perform similarly to judges when selecting possible expert witnesses due to the similarity of their education and training. Specifically, their legal

training and current professions have provided both groups (judges and attorneys) with the motivation to choose potential expert witnesses wisely. However, their training may not have adequately equipped them with the requisite knowledge to distinguish between psychology experts' areas of specialty. For that reason, legal professionals were expected to rely more on peripheral cues to expertise, such as previous experience testifying, to make expert witness decisions rather than relying on central cues such as the expert's area of expertise and publication record.

As indicated earlier, the current study is the first to examine legal professionals' "gatekeeper" abilities when presented with 'real-world' material (expert witness CVs). Despite the fact that legal professionals typically base their initial expert witness decisions solely on experts' CVs, research thus far has neglected including this type of material in research on expert witness admissibility decisions. In most legal settings the judge does not actually hear an expert's testimony until an initial decision to accept the expert has been made. Judges' decisions, therefore, are likely based on information in the expert's curriculum vitae (e.g., the expert's qualifications including whether s/he has previously testified as an expert). Arguably, applying legal standards of admissibility may be difficult when presented with material, such as a CV, that shows only indirect indicators of general acceptance in the scientific community and/or falsifiability of the expert's research. It appears, therefore, that the extent to which judges can infer the quality of scientific expert testimony from potential psychology experts' CVs may be directly related to the quality of their admissibility decisions. Moreover, the extent to which attorneys can make similar inferences may predict the quality of their expert witness hiring decisions and the quality of any cross-examination of the expert.

The Current Study

The foci of the current study were to determine which cues (systematic/central vs. heuristic/peripheral) legal professionals (judges and attorneys) would rely on to identify an appropriate psychology expert for a particular criminal case, and whether they differed from novices (undergraduate psychology students) in this ability. Specifically, I manipulated and assessed the relative importance of a heuristic/peripheral cue (prior expert witness experience) and systematic/central cues (expert's area of expertise and scholarly publication record) in their respective decisions. I further examined the relative importance of the legal criteria for expert witness admissibility and legal professionals' confidence in their expert witness decisions to determine which variables may explain the underlying decision making processes.

To test the hypothesis that knowledge plays an important role in quality expert witness admissibility decisions, the current study compared legal professionals with individuals that have psychology training/knowledge (psychology students) relevant to evaluating properly psychology experts' CVs. Specifically, the ELM predicts that only under conditions when legal professionals are motivated *and* possess requisite knowledge will decisions be based on central, relevant information. In the case of expert witness admissibility decisions based on experts' CVs, the central route to persuasion should include a consideration of scholarly publication record and area of expertise. The current study allowed for assessment of the relative impact of systematic/central information (area of expertise and scholarly publication record) compared to heuristic/peripheral information (prior expert witness testimony experience). To assess the level of motivation, participants complete a detailed post hoc questionnaire (Appendix C).

Hypothesis 1. Judges and attorneys will focus on, thus be more likely to choose, a psychology expert who has previous expert witness experience than an expert without such experience regardless of the expert's specialty (clinical forensic psychology vs. experimental legal psychology).

Hypothesis 2. Judges and attorneys will be more likely to choose an expert with a high scholarly publication record than an expert with no publication record regardless of the expert's specialty.

Hypothesis 3. Judges and attorneys will be most likely to choose an expert with a combination of a high scholarly publication record and previous experience as an expert witness than any other combination regardless of the expert's specialty.

Hypothesis 4. Unlike judges and attorneys, psychology students will choose the psychology expert whose area of expertise is the best match for the case regardless of the expert's publication record or prior expert witness testimony experience.

Hypothesis 5. Psychology students will choose the expert whose area of expertise matches the case issues, has a high scholarly publication record, and previous experience as an expert witness more frequently than any other combination, and more frequently than will judges and attorneys.

Chapter II

Method

Participants

One hundred fifty legal professionals were recruited through the National Association of Judges and professional contacts across the United States. They were criminal court judges (n = 79) and criminal trial attorneys (n = 81) who were asked to participate in a study on "Judging Expert Witnesses." They were predominantly male (74%; 26% female), White/Caucasian (74%; 2% Latino; 24% no response), and ranged in age from 36 to 80 years old (M = 59, SD = 9). Their length of experience as legal professionals ranged from 2 to 43 years (M = 26, SD = 11).

Four hundred sixty eight undergraduate psychology students were recruited through the Florida International University Psychology Department participant pool. In exchange for participating in the study, students were given course credit through Sona Systems, the Psychology Department Research Management system. The sample was predominantly female (70%; 30% male), Latino (67%; 12% African-American; 11% White/Caucasian; and 10% Other), and ranged in age from 17 to 45 years (M = 22, SD = 11). Most of the sample (32%) was in their junior year in college (29% Freshman, 16% Sophomore; and 23% Senior).

Design

A between-participants 2 (stimulus case: clinical vs. experimental legal psychology) x 2 (area of expertise: clinical psychology vs. experimental legal psychology) x 2 (high scholarly publication record vs. no publications) x 2 (previously testified as an expert witness vs. never before testified) factorial design was used. The

central dependent measure was a dichotomous decision in which "Yes, Dr. Jones is an expert in the area of proffered testimony," or "No, Dr. Jones is not an expert in the area of proffered testimony," were the only two options.

Other essential dependent measures assessed the frequency of correct expert witness decisions, ratings of how likely participants were to choose the expert witness to testify in the case provided, how confident they were in their decisions, and the extent to which participants believed expert's credentials met the legal standards of expert witness admissibility. Those items consisted of a series of statements in which participants were asked to rate their level of agreement with each statement on a 1 through 7 Likert-type scale with 1 being "strongly disagree" and 7 being "strongly agree."

Materials

Stimulus case. Participants were presented with one of two stimulus cases (see Appendix A) that were summarized and modified versions of People v. Champagne Smith (People v. Smith, 2004), an actual second degree murder case from New York. The first version called for a legal psychologist specializing in eyewitness memory. Eyewitness testimony was a central issue in the original case. The second version of the case called for a clinical psychologist specializing in evaluating the defendant's mental health and was created based on the modifications made to the first version. This was done in order to keep differences between the two cases to a minimum. As the defendant's mental health was a central issue in the clinical case version, defense counsel needed to retain a clinical psychology expert. Modifications to both cases included changing details such as the defendant's name, witness' names, the location where the crime took place, when it occurred, the weapon used to commit the crime, and the case

issues requiring expert witness testimony. Modifications were minor but were made to make the case more general thus undetectable through internet searches. The case summary was presented to participants in written form.

Expert witness testimony. General areas of proffered expert witness testimony were provided to participants to ensure that they were aware that the expert must be qualified to provide a particular type of scientific testimony (eyewitness memory or mental health testimony). Expert witness testimony was presented in written form along with the corresponding case scenario (See Appendix A). The legal psychologist's expert witness testimony was adapted from the original case (People v. Smith, 2004) and was modified slightly to reflect current research in the area of eyewitness memory. The clinical psychologist's testimony was created to reflect empirical research on mental health issues relevant to the defendant's culpability in the case.

Curricula vitae. Participants were presented with one of eight curricula vitae depending upon assigned experimental condition (Appendix B). Depending on the version of the stimulus case participants received, the case called for either expert witness testimony from an eyewitness identification expert or that of a clinical psychologist. Both types of experts' CVs reflected that they currently held university faculty positions. The "matching" CV was that of the psychologist whose area of specialization matched the provided stimulus case version. The "no match" CV was that of the psychologist whose area of specialization did not match the stimulus case version. That is, no match occurred when the legal psychology expert's CV was presented in conjunction with the stimulus case/testimony version that called for a clinical psychologist and vice versa.

In the high-scholarly-publication-record condition, the expert had a list of 30 publications whereas in the no-scholarly-publication-record condition, the expert had no publications. In the previously-testified-as-an-expert-witness condition, there was a line on the CV stating, "Court-appointed expert witness in over 50 cases," whereas in the never-before-testified condition the line was, "No previous expert witness testimony experience."

Procedure

The study was administered via the online survey software, Qualtrics. Participants received an email with basic information about the study. If interested in participating, they were asked to click on a link allowing them to access the study. The link was provided to legal professionals (judges and attorneys only) via email. It was simultaneously provided to undergraduate students who were recruited to participate through Sona Systems, the Florida International University Psychology Department online research management system.

Upon entering the study, the first page provided a general introduction explaining that participants were asked to read a criminal case scenario, view an expert witness's CV, and answer some questions. Participants were then asked to read the consent form. Implied informed consent was given when participants clicked on the "I consent" button at the bottom of the consent form page. Participants were able to exit the study at any time by simply closing their browser window. Participants were assigned randomly to the various experimental conditions.

The next web page presented the assigned case scenario and expert witness testimony. Participants were advised that they were about to read a criminal case scenario in which the defendant was charged with second degree murder. They were further informed that after reading the case scenario, they would be asked to view a potential expert witness's CV to determine if the expert was acceptable to testify in the case. Legal professionals were instructed that they should approach the task as they would normally in their roles as judges and attorneys. Student participants were instructed that they should approach the task in the way they thought was most effective for helping them evaluate the expert's credentials. For all materials presented, participants had unlimited time to view them and worked through the study at their own pace.

After reading the case scenario and proposed testimony, participants were presented with an expert witness CV. After reading the CV, each participant was asked whether s/he believed Dr. Jones was, in fact, an expert in the proffered area of testimony followed by a series of questions about whether Dr. Jones' qualifications met certain admissibility criteria for an expert witness in that specific case (see Appendix C). Once participants responded to all of the questions, they were directed to a page where they were asked a set of demographic questions such as age, education, etc.

Upon completion of the experiment participants were directed to a debriefing page and thanked for their participation. They were also provided the option to email the researcher if they were interested in the study outcomes or in participating in future research on expert witness testimony.

Chapter III

Results

Analyses were first conducted separately for students and legal professionals. Comparisons were then made between the two groups on their study responses. Since the primary dependent variable in this study was a dichotomous variable (Dr. Jones is an expert/is not an expert), the first set of analyses tested the effects of all four independent variables on this outcome variable using logistic regression. The second set of analyses also consisted of a logistic regression on the dichotomous outcome variable of whether the expert witness decision was a correct match. The third set of analyses examined the effects of all four independent variables on how confident participants were in their decision to accept or reject the expert, how qualified they thought the expert was, how knowledgeable and motivated participants rated themselves in choosing an expert, and what aspects of the expert's credentials were most influential in participants' decision-making processes. These results were analyzed using MANOVAs.

Across all conditions and participants, Qualtrics effectively randomized the presentation of the stimulus case and the curricula vitae. That is, each case scenario (clinical psychologist required vs. legal psychologist required) was presented to all participants with nearly equal frequency (M = 51%, SD = 50%). The curriculum vitae matched the case scenario presented in terms of required area of expertise approximately half of the time (M = 49%, SD = 50%).

Student Participants

Expert witness decisions. Approximately three-fourths of the student participants judged Dr. Jones an expert (M = .74, SD = .44) regardless of whether the curriculum

vitae matched the presented case scenario. For the purpose of this study, an expert witness decision was considered "correct" when the participant either correctly accepted or correctly rejected the expert depending upon whether there was a match between required area of expertise and the case scenario or not. Specifically, if the case scenario and area of expertise listed on the CV matched (eyewitness scenario and legal psychology expert; or mental health case and clinical psychology expert), a correct decision was to decide that Dr. Jones was an expert. If there was no match between the case scenario and expert witness CV and the participant rejected Dr. Jones as an expert, this was also considered a correct response. All other decisions were considered incorrect. Students made a correct expert witness decision in 51% of the cases. That is, they correctly accepted Dr. Jones as an expert in 35% of the cases, and correctly rejected Dr. Jones as an expert in 16% of the cases.

Initially, data were analyzed using a logistic regression to determine the effects of stimulus case, area of psychology expertise, previous expert witness testimony, and publication record on whether participants considered Dr. Jones an expert regardless of whether the stimulus case and CV matched in area of expertise. A test of model fit was significant ($\chi^2(4) = 36.70$, $p < .01$) indicating that stimulus case ($p < .05$), previous expert witness testimony ($p < .01$), and publication record ($p < .05$) all significantly predicted whether participants would label Dr. Jones an expert, regardless of whether it was a correct decision.

Subsequent post hoc comparisons revealed that when participants were presented with the clinical psychology stimulus case, they were significantly more likely to judge the doctor an expert ($\chi^2(1) = 5.12$, $p < .05$) than when presented with the

legal/experimental psychology case scenario. Post hoc comparisons also revealed that when presented with a CV that listed previous expert testimony experience, student participants were significantly more likely to judge Dr. Jones an expert ($\chi^2(1) = 20.04$, $p < .01$) than when presented with a CV that showed no previous expert testimony experience. Finally, when participants were presented with a CV that listed publications as opposed to no publications, they were significantly more likely to judge Dr. Jones an expert ($\chi^2(1) = 9.00$, $p < .01$).

Table 1 includes the results for each of the variables that predicted significantly whether participants judged Dr. Jones an expert regardless of whether it was a correct decision. The effect sizes are reported as Exp(B) and show that participants who were presented with a CV that listed previous expert witness testimony were 2.7 times more likely to accept Dr. Jones as an expert regardless of the area of psychology expertise listed on the CV. Publication record was the second most influential factor indicating that participants were 1.8 times more likely to accept Dr. Jones as an expert when the CV included a list of 30 publications compared to none regardless of whether those publications were in the required area of expertise.

A second logistic regression was then performed to determine whether stimulus case, area of psychology expertise, previous expert witness testimony, and publication record predicted when participants made a *correct* expert witness decision. That is, whether their decision reflected an accurate match of case and area of expertise. A test of model fit was significant ($\chi^2(4) = 14.41$, $p < .01$) indicating that at least one of the independent variables reliably predicted when participants correctly judged Dr. Jones an expert. Stimulus case ($p < .05$) was the only variable that predicted significantly whether

participants made a correct expert witness decision. Post hoc comparisons revealed that participants presented with the clinical psychology stimulus case were significantly more likely to make a correct expert witness decision ($\chi^2(1) = 8.73$, $p < .01$) than those presented with the legal/experimental psychology case scenario.

Confidence in decision and likelihood of choosing expert. All participants were asked to rate their level of confidence in their expert witness decisions on a 1 through 11 Likert-type rating scale with 1 being "not at all confident" and 11 being "completely confident." Across all conditions, students' overall confidence was high ($M = 8.19$, $SD = 1.82$). Students were also asked to rate the likelihood that they would choose Dr. Jones to testify on a 1 through 7 Likert-type scale with 1 being "not at all likely" and 7 being "entirely likely." Across all conditions, participants were highly likely ($M = 4.95$, $SD = 1.44$) to choose Dr. Jones to provide expert testimony in the case regardless of area of expertise.

A 2 (stimulus case: clinical vs. experimental legal) x 2 (area of expertise: clinical psychology vs. legal psychology) x 2 (high number of scholarly publications vs. no publications) x 2 (previously testified as an expert witness vs. never before testified) MANOVA was conducted to determine which, if any, of these variables had a significant impact on participants' level of confidence and their likelihood of choosing Dr. Jones to testify. Multivariate test results revealed significant effects of stimulus case, ($F(2, 449) = 4.79$, $p < .05$); previous expert witness testimony experience ($F(2, 449) = 3.83$ $p < .05$); and publications ($F(2, 449) = 5.35$, $p < .01$).

Univariate post hoc comparisons revealed that participants who received the clinical psychology case scenario were significantly more confident in their expert

witness decisions ($F(1, 450) = 5.27$, $p < .05$) , and were significantly more likely to choose Dr. Jones to testify ($F(1, 450) = 8.16$, $p < .01$) than those who received the eyewitness memory case scenario, regardless of Dr. Jones' area of expertise.

A univariate main effect of previous expert witness testimony experience on likelihood of choosing the expert to testify was also found showing that participants were more likely to choose Dr. Jones to testify when the CV listed previous expert witness testimony experience compared to no experience ($F(1, 450) = 6.35$, $p < .05$). When participants were presented with a CV listing publications, confidence in their decisions was significantly higher ($F(1, 450) = 5.08$, $p < .05$), and likelihood to choose the doctor was significantly higher ($F(1, 450) = 9.65$, $p < .01$), compared to no publications, regardless of area of expertise.

Expert witness admissibility criteria. Participants were also asked a series of questions about legal criteria for admissibility that judges use to determine expert testimony admissibility. These items were adapted from the standards set forth in *Frye* and *Daubert* and were formatted as statements in which participants were asked to rate their level of agreement with each statement on a 1 through 7 Likert-type scale with 1 being "strongly disagree" and 7 being "strongly agree." For example, participants rated the expert on competence in the area of expertise proffered, and on possessing the requisite skills, training, education, knowledge, and experience to qualify as an expert.

A 2 (stimulus case: clinical vs. experimental legal) x 2 (area of expertise: clinical psychology vs. legal psychology) x 2 (high scholarly publication record vs. no publications) x 2 (previously testified as an expert witness vs. never before testified) MANOVA was conducted to determine which, if any, of these variables had a significant

impact on participants' ratings on the 10 expert witness admissibility criteria items. Results of the multivariate tests showed there was a significant effect of previous expert witness testimony experience on the overall level of agreement that the expert met the legal criteria for testimony admissibility, ($F(10, 405) = 4.04$, $p < .01$).

Follow-up univariate analyses revealed that participants were significantly more likely to say that the expert had the required experience to impart reliable information at trial when the expert's CV showed previous expert witness testimony experience, ($F(1, 414) = 20.70$, $p < .01$) than when there was no previous expert testimony experience listed. There were no other main effects or significant interactions.

Importance of expert's credentials. A 2 (stimulus case: clinical vs. experimental legal) x 2 (area of expertise: clinical psychology vs. legal psychology) x 2 (high scholarly publication record vs. no publications) x 2 (previously testified as an expert witness vs. never before testified) MANOVA was then conducted to determine which, if any, of these variables had a significant impact on participants' ratings. Results of the multivariate test revealed a significant main effect of stimulus case on participants' ratings of the importance of the expert's credentials, ($F(6, 425) = 3.67$, $p < .01$). There was also a significant main effect of publication record ($F(6, 425) = 2.23$, $p < .05$). There were no other main effects or significant interactions among any of the variables.

Post hoc comparisons revealed that when presented with the clinical psychology as opposed to the eyewitness memory case scenario, participants rated significantly higher the importance of the expert's educational background ($F(1, 430) = 6.76$, $p < .05$), the expert's previous experience as an expert witness, ($F(1, 430) = 3.74$, $p = .05$), and whether the CV represented a typical expert witness CV, ($F(1, 430) = 8.13$, $p < .01$).

Findings also showed that when the CV had a list of publications, participants were significantly more likely to rate it as representative of a typical expert witness CV compared to the CV without publications ($F(1, 430) = 7.41$, $p < .01$).

Participants' motivation, knowledge, and ability. Participants also rated their level of agreement with statements related to their ability, knowledge, and motivation to choose an appropriate expert witness for the case. Ratings were recorded on a 1 through 7 Likert-type scale with 1 being "strongly disagree" through 7 being "strongly agree." Students rated themselves highly on ability ($M = 4.45$, $SD = 1.33$), knowledge ($M = 4.43$ $SD = 1.33$), and motivation ($M = 5.04$, $SD = 1.30$) to choose an appropriate expert witness for the case regardless of which case scenario they received.

To determine what effect, if any, the study's independent variables had on participants' ratings, a 2 (stimulus case: clinical vs. experimental legal) x 2 (area of expertise: clinical psychology vs. legal psychology) x 2 (high number of scholarly publications vs. no publications) x 2 (previously testified as an expert witness vs. never before testified) MANOVA was conducted. There were no significant main effects of any of the independent variables on participants' self-ratings and there were no significant interactions.

Legal Professionals (Attorneys and Judges)

Initially, data were analyzed separately for judges and attorneys following the same analysis structure as the student sample. As predicted, results indicated no significant differences between judges and attorneys for any of the main outcome variables. Data were therefore collapsed across the two legal professionals' groups

(attorneys and judges) for all subsequent analyses. All data were analyzed following the same sequence of analyses used for the student sample.

Expert witness decisions. Approximately two-thirds of the legal professionals judged Dr. Jones an expert (M = .66, SD = .48) regardless of whether the curriculum vitae matched the presented case scenario. First, a logistic regression was used to determine the effects of stimulus case, area of psychology expertise, previous expert witness testimony, and publication record on expert witness decisions. A test of model fit was significant, $\chi^2(4) = 15.66$, $p < .01$, indicating that the independent variables reliably predicted when participants would respond that Dr. Jones was an expert. Table 2 shows that area of expertise ($p = .01$) and previous expert witness testimony ($p < .05$) predicted significantly whether legal professionals would label Dr. Jones an expert.

Post hoc comparisons revealed that when Dr. Jones' CV stated the area of expertise was eyewitness memory, legal professionals were significantly more likely to determine that Dr. Jones was an expert ($\chi^2(1) = 6.67$, $p < .01$) regardless of which version of the stimulus case they received. Moreover, when Dr. Jones had previous expert witness testimony experience, legal professionals were significantly more likely to judge Dr. Jones an expert ($\chi^2(1) = 3.63$, $p = .05$).

Legal professionals made a correct expert witness decision in 58% of the cases. That is, they correctly accepted Dr. Jones as an expert in 34% of the cases and correctly rejected Dr. Jones in 24% of the cases. A second logistic regression was used to determine the effects of stimulus case, area of psychology expertise, previous expert witness testimony, and publication record on correct expert witness decisions. A test of model fit was significant, ($\chi^2(4) = 19.21$, $p < .01$), indicating that the variables reliably

predicted when legal professionals made a correct expert witness decision. Area of expertise ($p < .01$) predicted significantly whether participants made a correct expert witness decision. Follow up comparisons revealed that when Dr. Jones' CV listed expertise in eyewitness memory, legal professionals were significantly more likely to make a correct expert witness decision ($\chi^2(1) = 17.97$, $p < .01$)

Confidence in decision and likelihood of choosing expert. Legal professionals were asked to rate their level of confidence in their expert witness decisions on a 1 through 11 Likert-type rating scale with 1 being "not at all confident" and 11 being "completely confident." Across all conditions, reported confidence was high ($M = 8.68$, $SD = 1.81$) overall. Legal professionals also rated the likelihood with which they would choose Dr. Jones to testify on a 1 through 7 Likert-type scale with 1 being "not at all likely" and 7 being "entirely likely." Across all conditions, legal professionals were highly likely ($M = 4.46$, $SD = 1.98$) to choose Dr. Jones to provide expert testimony in this case regardless of area of expertise.

A 2 (stimulus case: clinical vs. experimental legal) x 2 (area of expertise: clinical psychology vs. legal psychology) x 2 (scholarly publications vs. no publications) x 2 (previously testified as an expert witness vs. never before testified) MANOVA was conducted to determine which, if any, of these variables had a significant impact on legal professionals' level of confidence and their likelihood of choosing Dr. Jones to testify. Multivariate test results revealed significant effects of stimulus case, ($F(2, 135) = 3.94$, $p < .05$); area of expertise, ($F(2, 135) = 3.57$, $p < .05$); and previous expert witness testimony experience ($F(2, 135) = 9.74$, $p < .01$). There was a significant interaction between previous expert testimony experience and publications, ($F(2, 135) = 14.28$, $p <$

.01). Follow-up univariate analyses revealed that when Dr. Jones' CV contained both previous expert testimony experience and publications, legal professionals were significantly more likely to hire/allow Dr. Jones to testify than when either or both were missing from the CV, ($F(1, 136) = 23.89$, $p < .01$).

Expert witness admissibility criteria. Legal professionals were also asked a series of questions about legal criteria for admissibility that are used to determine the admissibility of expert testimony in a given area. Participants were asked to rate their level of agreement with each item on a 1 through 7 Likert-type scale with 1 being "strongly disagree" and 7 being "strongly agree."

A 2 (stimulus case: clinical vs. experimental legal) x 2 (area of expertise: clinical psychology vs. legal psychology) x 2 (high scholarly publication record vs. no publications) x 2 (previously testified as an expert witness vs. never testified) MANOVA was conducted to determine which, if any, of these variables had a significant impact on legal professionals' ratings. Results of the multivariate tests showed there was a significant effect of stimulus case ($F(10, 121) = 3.56$, $p < .01$), area of expertise ($F(10, 121) = 9.68$, $p < .01$) previous expert witness testimony experience ($F(10, 121) = 4.63$, $p < .01$), and publication record ($F(10, 121) = 8.77$, $p < .01$) on the overall level of agreement that the expert met the legal criteria for testimony admissibility. Tables 3 through 6 list legal professionals' responses to the admissibility criteria items and the results for each independent variable on each of the legal criteria dependent variables. Specifically, Table 3 shows the significant post hoc comparisons of the univariate effect of stimulus case on each of the legal criteria items. Table 4 shows the same for area of expertise, Table 5 shows the effect of previous expert witness testimony experience, and

Table 6 shows the significant univariate effect of publication record on each of the admissibility criteria items.

Multivariate tests also revealed a significant interaction between stimulus case and area of expertise ($F(10, 121) = 5.09$, $p < .01$) such that when presented with a matching clinical psychology stimulus case and CV, legal professionals were significantly more likely to agree that the expert met the admissibility criteria than when presented with a stimulus case and CV that did not match on required expertise. There was a significant interaction between area of expertise and publication record ($F(10, 121) = 5.74$, $p < .01$). Post hoc comparisons revealed when the area of expertise was clinical psychology and the CV had a list of publications, legal professionals were significantly more likely to agree that the expert met the admissibility criteria than when presented with an experimental/legal psychology CV with no publications regardless of the required testimony detailed in the case scenario. There was also a significant interaction between previous expert witness testimony and publication record ($F(10, 121) = 4.09$, $p < .01$) such that legal professionals were significantly more likely to agree that the expert met the admissibility criteria when the CV listed a combination of previous expert testimony experience and publications than when either or both was missing.

Importance of expert's credentials. Legal professionals were asked to rate the importance of the expert's academic credentials, academic training, previous experience as an expert, professional experience, and area of expertise when considering whether the doctor was an expert. Ratings were recorded on a 1 through 7 Likert-type scale with 1 being "not at all important" and 7 being "extremely important." Participants also rated their level of agreement that the CV was representative of a typical expert witness CV.

These ratings were recorded on a 1 through 7 Likert-type scale with 1 being "strongly disagree" to 7 being "strongly agree." Legal professionals rated highly the importance of specific area of expertise (M = 5.76, SD = 1.35), the area of academic training (M = 5.62, SD = .84), the expert's academic credentials (M = 5.26, SD = .87), professional credentials (M = 5.21, SD = 1.22), and experience as an expert witness (M = 4.80, SD = 1.94), in their decision-making. They also rated highly their level of agreement (M = 4.27, SD = 1.65) that the presented CV resembled a typical expert witness CV.

A 2 (stimulus case: clinical vs. experimental legal) x 2 (area of expertise: clinical psychology vs. legal psychology) x 2 (high scholarly publication record vs. no publications) x 2 (previously testified as an expert witness vs. never before testified) MANOVA was then conducted to determine which, if any, of these variables had a significant impact on these participant ratings. There was a significant main effect of stimulus case on legal professionals' ratings of the importance of the expert's credentials, ($F(6, 122) = 4.34$, $p < .01$), such that when presented with the clinical psychology case scenario, legal professionals were significantly more likely to rate higher the overall importance of the expert's credentials in their expert witness decisions compared to an eyewitness memory case. There was also a significant main effect of publication record ($F(6, 122) = 5.08$, $p < .01$). There were no other main effects or interactions.

Follow-up univariate analyses revealed a main effect of stimulus case. When presented with the clinical psychology case scenario rather than the eyewitness memory case scenario, legal professionals rated significantly higher the importance of the expert's educational background ($F(1, 127) = 13.54$, $p < .01$. Legal professionals were also significantly more likely to rate Dr. Jones' CV representative of a typical expert witness

CV when it included a list of several publications than none, regardless of area of expertise ($F(1, 127) = 5.13$, $p < .05$).

Participants' motivation, knowledge, and ability. Participants were asked to rate their level of agreement with statements related to their ability, knowledge, and motivation to choose an appropriate expert witness for the case. Ratings were recorded on a 1 through 7 Likert-type scale with 1 being "strongly disagree" through 7 being "strongly agree." Results showed that participants rated themselves highly on ability ($M = 5.54$, $SD = 1.36$), knowledge ($M = 5.70$ $SD = 1.38$), and motivation ($M = 5.91$, $SD = 1.27$).

To determine what effect, if any, the independent variables had on participants' ratings, a 2 (stimulus case: clinical vs. experimental legal) x 2 (area of expertise: clinical psychology vs. legal psychology) x 2 (high scholarly publication record vs. no publications) x 2 (previously testified as an expert witness vs. never before testified) MANOVA was conducted. There were no significant main effects of the independent variables on legal professionals' self-ratings and there were no significant interactions.

Comparisons between students and legal professionals

Expert witness decisions. A logistic regression was conducted to examine whether there were significant differences between undergraduate psychology students and legal professionals in their responses to the question, "Is Dr. Jones an expert?" Results showed that there was no significant difference between students and legal professionals in the frequency with which each identified Dr. Jones as an expert ($M = 74\%$, $SD = 44\%$ vs. $M = 66\%$, $SD = 48\%$, respectively), regardless of whether there was a match in area of expertise between the presented case scenario and the area of expertise

listed on the CV. A logistic regression was also used to examine whether a difference existed in the percentage of correct expert decisions between the two groups. There was no significant difference between the percentage of students' and legal professionals' correct expert witness decisions (M = 51%, SD = 50% vs. M = 55%, SD = 50%, respectively).

Confidence in decision and likelihood of choosing expert. A MANOVA was then conducted using participant group (students vs. legal professionals) as the sole independent variable to determine whether there were any differences between students and legal professionals regarding decision confidence and the likelihood of choosing/allowing the expert to testify. Multivariate tests showed there was a significant difference between students and legal professionals in the level of confidence in their decisions, and in the likelihood that they would choose the expert to testify ($F(2, 613) = 14.43$, $p < .01$).

Post hoc comparisons of the univariate effects revealed that legal professionals expressed significantly higher confidence ($F(1, 614) = 8.28$, $p < .01$) in their decisions than did students. In contrast, students were significantly more likely than legal professionals to allow Dr. Jones to testify ($F(1, 614) = 10.77$, $p < .01$).

Expert witness admissibility criteria. To determine whether students and legal professionals differed in their responses to the admissibility criteria questions, a MANOVA was conducted. Results showed that there were significant differences between legal professionals and students for each of the ten admissibility criteria items ($F(10, 563) = 20.58$, $p < .01$).

Univariate post hoc analyses revealed that students were significantly more likely than legal professionals to rate the expert as competent in the area of expertise ($F(1, 572) = 13.85$, $p < .01$); in possessing the requisite skills, ($F(1, 572) = 27.57$, $p < .01$), education ($F(1, 572) = 21.35$, $p < .01$), and training, ($F(1, 572) = 10.42$, $p < .01$); in possessing the requisite knowledge ($F(1, 572) = 48.67$, $p < .01$) and experience ($F(1, 572) = 35.22$, $p < .01$); and that the testimony was based on scientific procedures ($F(1, 572) = 20.94$, $p < .01$) and scientific principles ($F(1, 572) = 6.80$, $p < .01$). Conversely, legal professionals were significantly more likely than students to report that the expert's testimony was beyond the knowledge of the jury ($F(1, 572) = 53.78$, $p < .01$), and that the testimony was relevant to the issues and facts of the case ($F(1, 572) = 17.40$, $p < .01$).

Importance of expert's credentials. A MANOVA was conducted to examine any differences between the two groups' ratings of importance of the expert's credentials and whether the expert's CV resembled a typical expert witness CV. Results revealed that there was a significant difference between the two groups ($F(6, 580) = 18.17$, $p < .01$). Post hoc comparisons revealed that students placed significantly higher importance than legal professionals on the expert's academic credentials ($F(1, 586) = 12.90$, $p < .01$); professional credentials $F(1, 586) = 32.58$, $p < .01$); and previous expert witness experience ($F(1, 586) = 62.33$, $p < .01$). There was no difference between the two groups on ratings of importance of the expert's specific area of academic training or specific area of expertise. Post hoc comparisons of whether the expert's CV resembled a typical expert witness CV showed that students were significantly more likely than legal professionals to agree that it did ($F(1, 586) = 15.00$, $p < .01$).

Participants' motivation, knowledge, and ability. Results of a MANOVA showed that there was a significant difference between the two groups on their ratings of motivation, ability, and possessing the knowledge to choose an appropriate expert witness ($F(3, 581) = 32.44$, $p < .01$). Post hoc comparisons revealed that legal professionals rated themselves significantly higher than students on motivation ($F(1, 583) = 49.26$, $p < .01$), knowledge ($F(1, 583) = 73.69$, $p < .01$), and ability ($F(1, 583) = 93.10$, $p < .01$) to choose an appropriate expert witness.

Table 1
Factors that influenced students' expert witness decisions

							95% CI for Exp(B)	
		B	S.E.	Wald	Df	Sig	Exp(B)	Lower	Upper
Step 1[a]	Stim. Case	-.539	.221	5.977	1	.014	.583	.378	.899
	Area of Exp	-.365	.219	2.768	1	.096	.694	.451	1.067
	Testimony	.976	.227	18.444	1	.000	2.653	1.700	4.140
	Publications	.604	.223	7.347	1	.007	1.830	1.182	2.833

a. Variables entered on Step 1: Stimulus Case, Area of Expertise, Expert Witness Experience, Publication Record

Table 2

Factors that influenced legal professionals' expert witness decisions

							95% CI for Exp(B)	
		B	S.E.	Wald	Df	Sig	Exp(B)	Lower	Upper
Step 1[a]	Stim. Case	-.627	.407	2.379	1	.123	.534	.241	1.185
	Area of Exp	.981	.379	6.712	1	.010	2.670	1.270	5.605
	Testimony	.908	.400	5.158	1	.023	2.479	1.132	5.436
	Publications	.700	.371	3.551	1	.060	2.013	.972	4.169

a. Variables entered on Step 1: Stimulus Case, Area of Expertise, Expert Witness Experience, Publication Record

Table 3

Legal professionals' agreement that expert meets admissibility criteria by stimulus case

Item	Stim Case	*M*	*SE*	95% CI Lower	95% CI Upper
Dr. is competent in the field of expertise	Clinical Case	4.852 [a]	.174	4.508	5.197
	Eyewitness Case	4.393 [a]	.152	4.092	4.693
Dr. possesses requisite skills	Clinical Case	4.710	.179	4.356	5.063
	Eyewitness Case	4.483	.156	4.174	4.792
Dr. possesses requisite training	Clinical Case	4.800	.187	4.430	5.170
	Eyewitness Case	4.694	.164	4.370	5.017
Dr. possesses requisite education	Clinical Case	4.886	.198	4.493	5.278
	Eyewitness Case	5.036	.173	4.693	5.379
Dr. possesses requisite knowledge	Clinical Case	4.495	.180	4.138	4.852
	Eyewitness Case	4.412	.158	4.100	4.723
Dr. possesses requisite experience	Clinical Case	4.500[a]	.189	4.126	4.874
	Eyewitness Case	3.871[a]	.165	3.544	4.198
Testimony based on scientific principle	Clinical Case	4.952	.141	4.673	5.231
	Eyewitness Case	4.754	.159	4.440	5.068
Testimony based on scientific procedure	Clinical Case	4.744	.142	4.463	5.024
	Eyewitness Case	4.591	.159	4.276	4.907
Testimony beyond jurors' knowledge	Clinical Case	5.652[a]	.135	5.384	5.920
	Eyewitness Case	6.173[a]	.118	5.939	6.408
Testimony relevant to case	Clinical Case	5.567[a]	.149	5.272	5.861
	Eyewitness Case	6.014[a]	.130	5.756	6.271

[a.] Mean difference significant at $p < .05$.

Table 4

Legal professionals' agreement that expert meets admissibility criteria by expertise area

Item	Area of Expertise	*M*	*SE*	95% CI Lower	95% CI Upper
Dr. is competent in the field of expertise	Clinical	4.235 [a]	.155	3.930	4.541
	Eyewitness	5.139[a]	.174	4.795	5.482
Dr. possesses requisite skills	Clinical	4.350 [a]	.159	4.036	4.664
	Eyewitness	4.925[a]	.178	4.572	5.278
Dr. possesses requisite training	Clinical	4.575	.166	4.246	4.904
	Eyewitness	4.976	.187	4.606	5.346
Dr. possesses requisite education	Clinical	4.890	.176	4.541	5.238
	Eyewitness	5.056	.198	4.664	5.447
Dr. possesses requisite knowledge	Clinical	4.288	.160	3.971	4.604
	Eyewitness	4.675	.180	4.318	5.031
Dr. possesses requisite experience	Clinical	3.917 [a]	.168	3.584	4.249
	Eyewitness	4.544[a]	.189	4.170	4.917
Testimony based on scientific principle	Clinical	4.288	.160	3.971	4.604
	Eyewitness	4.675	.180	4.318	5.031
Testimony based on scientific procedure	Clinical	4.952	.141	4.673	5.231
	Eyewitness	4.754	.159	4.440	5.068
Testimony beyond jurors' knowledge	Clinical	6.008	.120	5.770	6.246
	Eyewitness	5.786	.135	5.518	6.053
Testimony relevant to case	Clinical	5.871	.132	5.609	6.133
	Eyewitness	5.683	.149	5.388	5.977

[a.] Mean difference significant at $p < .05$

Table 5
Legal professionals' agreement that expert meets admissibility criteria by experience

Item	Previous Exp	*M*	*SE*	95% CI Lower	95% CI Upper
Dr. is competent in the field of expertise	Previous Exp	5.000[a]	.167	4.670	5.330
	No Exp	4.245[a]	.160	3.929	4.562
Dr. possesses requisite skills	Previous Exp	5.102[a]	.171	4.763	5.441
	No Exp	4.090[a]	.164	3.765	4.416
Dr. possesses requisite training	Previous Exp	5.241[a]	.179	4.887	5.596
	No Exp	4.252[a]	.172	3.912	4.593
Dr. possesses requisite education	Previous Exp	5.262[a]	.190	4.886	5.638
	No Exp	4.660[a]	.182	4.299	5.021
Dr. possesses requisite knowledge	Previous Exp	4.959[a]	.173	4.618	5.301
	No Exp	3.948[a]	.166	3.620	4.276
Dr. possesses requisite experience	Previous Exp	4.704[a]	.181	4.346	5.062
	No Exp	3.667[a]	.174	3.323	4.011
Testimony based on scientific principle	Previous Exp	5.241[a]	.152	4.940	5.543
	No Exp	4.493[a]	.146	4.204	4.782
Testimony based on scientific procedure	Previous Exp	4.983[a]	.153	4.680	5.285
	No Exp	4.374[a]	.147	4.083	4.664
Testimony beyond jurors' knowledge	Previous Exp	6.054	.130	5.798	6.311
	No Exp	5.771	.125	5.525	6.018
Testimony relevant to case	Previous Exp	5.942	.143	5.660	6.224
	No Exp	5.638	.137	5.367	5.909

[a.] Mean difference significant at $p < .05$

Table 6

Legal professionals' agreement that expert meets admissibility criteria by publications

Item	Previous Exp	*M*	*SE*	95% CI Lower	95% CI Upper
Dr. is competent in the field of expertise	No Publications	4.106[a]	.175	3.759	4.452
	Publications	5.010 [a]	.154	4.707	5.314
Dr. possesses requisite skills	No Publications	4.058[a]	.180	3.702	4.414
	Publications	5.000 [a]	.158	4.688	5.312
Dr. possesses requisite training	No Publications	4.548	.188	4.176	4.921
	Publications	4.896	.165	4.569	5.223
Dr. possesses requisite education	No Publications	4.617[a]	.200	4.222	5.012
	Publications	5.219 [a]	.175	4.872	5.565
Dr. possesses requisite knowledge	No Publications	3.836[a]	.182	3.477	4.195
	Publications	4.917 [a]	.159	4.602	5.232
Dr. possesses requisite experience	No Publications	3.821[a]	.190	3.445	4.198
	Publications	4.458 [a]	.167	4.128	4.789
Testimony based on scientific principle	No Publications	4.704	.160	4.388	5.020
	Publications	4.990	.140	4.712	5.267
Testimony based on scientific procedure	No Publications	4.597	.161	4.279	4.915
	Publications	4.740	.141	4.461	5.019
Testimony beyond jurors' knowledge	No Publications	6.102	.136	5.833	6.372
	Publications	5.771	.120	5.534	6.007
Testimony relevant to case	No Publications	5.899	.150	5.603	6.196
	Publications	5.708	.132	5.448	5.969

[a.] Mean difference significant at $p < .05$

Chapter IV

Discussion

The primary objective of the current study was to determine which factors influenced legal professionals' (judges and attorneys) ability to identify an appropriate psychology expert for a particular criminal case. The secondary purpose was to determine whether legal professionals differed from undergraduate psychology students in their ability to identify a suitable expert witness for a particular case. In contrast to what was hypothesized, students and legal professionals did not differ in how often they accepted Dr. Jones as an expert. Neither did they differ in the ability to select a psychology expert whose area of expertise was the best match for the case, regardless of the expert's publication record or prior expert testimony. It was also hypothesized that compared to legal professionals, psychology students would choose an expert who had a combination of scholarly publication record and previous experience as an expert witness more frequently than any other combination. None of these predictions were confirmed. Most importantly, there was no significant difference between the two samples in correctly identifying an appropriate expert based on a match between area of expertise and the area of testimony required for the case. In fact, both groups matched correctly the expert's area of expertise to the case only approximately half of the time (students, 51%; legal professionals, 58%).

It was further hypothesized that legal professionals in particular would focus on, thus be more likely to choose, a psychology expert who had previous expert witness testimony experience than an expert without such experience, regardless of the expert's area of expertise (clinical forensic psychology vs. experimental legal psychology). Data

confirmed that legal professionals were more likely to think Dr. Jones was an expert when the CV listed prior experience testifying. However, they were also influenced significantly by area of expertise. Specifically, only when Dr. Jones' expertise was eyewitness memory were legal professionals more likely to correctly match the CV to the case. Additional hypotheses were that legal professionals would be more likely to choose an expert with publications rather than an expert with no publications, regardless of the expert's specialty, and that they would be most likely to choose an expert with a combination of a high scholarly publication record and previous experience as an expert witness than any other combination regardless of the expert's specialty. Both of these hypotheses were confirmed.

Overall, findings show that both psychology students and legal professionals demonstrated suboptimal ability when matching a potential expert witness CV with a specific case. Interestingly, students' matching performance was slightly better when presented with the clinical psychology case scenario, and legal professionals' matching performance was slightly better when the CV presented was that of an eyewitness memory expert. However, there was no difference in how often each group identified Dr. Jones as an expert, regardless of whether there was a match between the area of expertise required by the case and that of the CV presented. Moreover, there was no difference between the groups in the rate of correct matches of the area of expertise required in the case to the area of expertise listed in the CV. Importantly however, legal professionals were significantly more confident in their expert witness decisions and ranked themselves higher in motivation, knowledge, and ability to choose an appropriate expert witness whereas students were more likely to allow the expert to testify. While students were also

more likely to rate the expert significantly higher on the *Frye/Daubert* criteria related to competence, education, and training, legal professionals rated the expert significantly higher in providing testimony that was beyond the knowledge of the jury and that was relevant to the issues and facts of the case.

Expert Witness Admissibility Decisions

Taking into consideration that the case scenario and CV matched approximately 50% of the time, participants were expected to be more conservative than they actually were in judging Dr. Jones an expert. Although legal professionals (66% said "Dr. is an expert") were slightly more conservative than psychology students (74% said "Dr. is an expert"), the difference between the groups was not statistically significant. Correct expert witness decisions were made only approximately half of the time (students = 51%; legal professionals = 58%). Legal professionals performed slightly better than students, however, the difference between the two groups was not statistically significant.

These results are consistent with those of previous researchers whose findings suggest that judges are not better than laypersons at identifying good science from "junk" science (Gatkowski et al., 2001; Kovera & McAuliff, 2000; McAuliff & Kovera, 2008). The present study extends the existing body of literature on judicial decision making such that when reproducing closely the conditions under which admissibility decisions are made, legal professionals appeared to under-utilize central cues to expertise such as matching area of expertise on the CV and the case scenario, and publications. They also appeared to over-utilize peripheral cues to expertise such as prior expert testimony experience and/or having a doctorate in psychology regardless of the area of psychology training/expertise. Despite the fact that psychology students appeared to use more central

cues (number of publications) in their expert witness decisions, the use of these cues did not translate into a better overall performance.

These findings are particularly concerning given that judges' and attorneys' expert witness decisions may be critically important to the outcome of a case whether in criminal or civil court. However, the results are not entirely surprising given that legal professionals, in general, do not receive training in the wide variety of areas of psychology expertise. As such, any untrained individual would have difficulties distinguishing between the various areas of psychology graduate training as well as assessing the relative importance of area of expertise/training, number of publications, and prior expert witness testimony experience. Instead, judges' and attorneys' decisions appear to be based on criteria relevant in the legal arena, such as prior expert witness experience.

As expected, when the expert's CV showed previous expert witness testimony experience, it was an influential factor in legal professionals' expert witness decisions. It is possible that this information may have overshadowed other and arguably more important information on the CV such as area of expertise and publication record. This may be attributable, in part, to the legal principle of *stare decisis* which holds that judges are obliged to respect prior decisions of other judges. These decisions constitute legal precedents and are typically related to case law. As such, judges' and attorneys' legal training may predispose them to apply this principle to all legal decision making, including retaining/admitting expert witnesses.

When presented with a CV showing that the proffered expert had testified in court on several occasions, legal professionals may have deduced that many prior attorneys and

judges accepted Dr. Jones as a psychology expert. Given legal professionals' lack of psychology training, they may assume that all psychologists receive nearly identical training thus deducing that any psychologist who has previously been labeled "expert" will suffice. However, psychologists' training differs widely depending on the area of study/specialization. Therefore, while following precedents set by other judges may be highly useful for many decisions in the legal arena, when choosing expert witnesses it facilitates the risk of repeating prior flawed decisions and on its own is not a safeguard against preventing pseudo-expertise from entering the courtroom.

Legal professionals were also influenced significantly by area of expertise indicating that *stare decisis* alone may not provide a complete explanation of their suboptimal expert witness decision making. Although legal professionals' decisions were influenced by the area of expertise listed on the CV, they still made correct decisions in only 58% of the cases. Interestingly, legal professionals were significantly more likely to make a correct decision when the area of expertise on the CV was experimental legal psychology, suggesting that area of expertise was considered under some circumstances.

It is possible that when presented with a CV showing an area of expertise (eyewitness memory) that is not encountered as often as "traditional" psychology (mental health) expertise, legal professionals performed better because they scrutinized the CV more closely. According to Bargh (1984), novel or unexpected information/stimuli tend to generate more conscious attention and are processed deliberatively rather than automatically. In the context of the present study, legal professionals may have processed more deliberatively the CV of the less typical eyewitness expert, thus linking more accurately common features between the case requirements and the expert's credentials.

This finding also implies that depending on area of expertise, expert witness decisions can be improved.

Despite the fact that psychology students receive training in the various areas of psychology, in this study they were equally unable to select experts appropriately. That is, they were unable to distinguish between an acceptable and an unacceptable expert. Based on their training, it was predicted that students would outperform legal professionals in matching expert witness CVs to a particular case. It is possible however, that a more advanced level of psychology training may be required to distinguish between areas of psychology expertise than existed in the tested student sample. In line with this notion, and unlike legal professionals, students were more likely to make correct expert witness decisions if the case required a clinical psychology expert. This may be attributable to the level of familiarity undergraduate students have with clinical psychology as opposed to a more specialized area of psychology such as legal psychology. Arguably, undergraduate psychology students have more exposure to clinical psychology as part of their standard curriculum and the popular interest in it. Therefore, it may have been easier for students to recognize similarities between the clinical case scenario and a clinical psychologist's CV than the legal case and matching experimental legal psychology CV.

Expert Witness Admissibility Criteria.

As expected**,** there was a significant difference between legal professionals and students in their use of the legal standards for admissibility criteria when evaluating the expert's credentials and fitness to provide expert witness testimony. Compared to students, legal professionals were more conservative in agreeing that the expert met each

of the criteria. However, legal professionals' level of agreement that the expert's credentials and testimony met admissibility criteria was still rather high (see Tables 3-6). This cautiously suggests that judges and attorneys may have allowed/retained the expert to testify despite the fact that in approximately half of the cases the expert's area of expertise did not represent a match to the case scenario. It also suggests that legal professionals, similar to students, struggled with evaluating properly the expert's qualifications in accordance with the legal criteria for admissibility arguably because applying or inferring these criteria from experts' CVs may require training/expertise beyond what legal professionals receive in law school. In fact, in could be argued that inferring scientific quality from any expert's CV may require an expert of equally specific background or expertise who is familiar with the various academic degrees, areas of specialization, and outlets of scientific work. The current data suggest that judges and attorneys are rendering "accurate" psychology expert witness decisions only approximately half of the time thus implying there is a high likelihood that pseudo psychology expertise is making its way into courtrooms nationwide. These findings are particularly troublesome given that the essence of the legal standards are to prevent false expertise in U.S. courtrooms via granting judges the gatekeepers of the testimony that is presented to the jury (*Daubert v. Merrell Dow Pharmaceuticals*, 1993).

According to prior research, there is another potential downside to suboptimal expert witness decisions. Kovera and McAuliff (2000) found that judges admitted experts in less than 20% of the cases indicating that rather than admitting pseudo-expertise/science, they were excluding high quality scientific psychology testimony. The admissibility rate found in the present study is considerably higher, even if not more

correct, which speaks to the importance of how expert witness admissibility decisions are measured. While Kovera and McAuliff (2000) presented judges with scientific study material, participants in the present study were presented with a CV from which to *infer* or *deduce* whether the expert was in a position to provide expert witness testimony in accordance with the legal admissibility criteria as set forth in *Frye* and *Daubert*. Given that initial real-world expert witness decisions are typically made based on expert CVs alone, the present findings indicate that past research may have underestimated the frequency with which flawed expert witness decisions are made in actuality. The present research is also a testament to varying methodologically how legal professionals' decision making is tested to broaden the understanding of factors influencing legal decisions as well as the policy implications of the findings.

Regardless of the actual rate of suboptimal expert witness decisions, any error in this area is troublesome given that the court and all parties to a legal matter may benefit from having suitable expert witnesses testify. The goal of such testimony is to augment jurors' knowledge to aid the jury in rendering a true and just verdict. Unfortunately, by the time jurors are exposed to a pseudo-expert, it is unlikely that they will recognize his/her lack of expertise in the area of testimony given that the court deemed the person an expert (Schweitzer & Saks, 2009). If provided with expert testimony that is not suitable in the given case, and/or denied quality expert testimony, jurors' decision making ability may be hindered. As a result, case outcomes may be affected adversely.

Confidence and Fractionated Expertise

Although legal professionals did not perform significantly better in rendering suitable expert witness decisions, they were significantly more confident in their

decisions than students. Judges and attorneys routinely evaluate expert witness CVs and make expert witness decisions. Their experience may account for the high level of confidence they reported in their expert witness decisions. The dissociation between confidence and the quality of one's own task performance is in line with past research. For example, Marteau, Wynne, Kaye, and Evans (1990) found that experience in task performance increases confidence, however, when there is no feedback provided on how well the task was performed, skill/competence does not improve. The condition under which feedback most significantly enhances performance appears to be when feedback is provided immediately after an incorrect response is conveyed.

Pashler, Cepeda, Wixted, and Rohrer (2005) examined the impact of various forms of feedback on associative learning and retention of information. The researchers highlighted a controversy in the field as to whether feedback actually enhances task performance as some research shows that it only improves performance during training (see Bjork, 1994; Carlson & Gilmore, 2000; Schmidt & Bjork, 1992). However, Pashler et al. pointed out that previous researchers provided feedback at the end of the learning task rather than immediately after participants provided an incorrect response. When varying the timing of feedback and retention interval on a word learning task, Pashler and colleagues found that participants who received feedback (e.g., the correct response) immediately after providing an incorrect response performed significantly better during training than participants who received no feedback, or that received feedback at varying intervals. This was especially true when participants were given time to process why their own responses were incorrect. Moreover, participants who were given the correct response immediately after providing an incorrect response performed significantly better

than other participants in retaining the correct responses up to one week later.

According to Shanteau (1992), professionals (e.g., judges and attorneys) rarely receive feedback on task performance. However, it may be that their performance on certain tasks such as retaining/admitting psychology expert witnesses could be greatly improved if feedback was provided whenever a suboptimal expert witness decision was made. Judges may assert that feedback is not necessary given that, in theory, cross examination of expert witnesses is a procedural safeguard against inadequate expert witness decisions. On the contrary, the findings of the current study show that attorneys render equally flawed expert witness decisions; therefore, they do not appear to be in a position to adequately cross examine psychology experts. A thorough and effective cross examination requires knowledge of the area on which the expert has been called to testify. Current findings suggest that legal professionals lack a sufficient level of knowledge in psychology to adequately evaluate a psychology expert's CV.

Students, on the other hand, do not evaluate expert witness CVs on a regular basis and that is reflected in the lower levels of confidence they reported in their expert witness decisions compared to legal professionals. Moreover, undergraduate psychology students may not feel completely confident when evaluating the credentials of someone who has a higher level of education than they do. The current study required that participants evaluate the CV of someone who had earned a doctorate whereas the student participants in this study have not yet earned a bachelor's degree.

Decision Making Theories

Although theoretical models of decision making were not tested directly, the current study allowed for estimates of the influence of central versus peripheral cues on

expert witness decisions. In the current study, central/systematic cues to decision making consisted of area of expertise and publication record whereas a peripheral/heuristic cue was the expert's prior expert witness testimony experience. Results showed that legal professionals and students alike were influenced significantly by the peripheral cue of previous expert witness testimony experience such that both groups labeled Dr. Jones an expert when the CV showed previous expert witness experience. Both the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986a) and the Heuristic-Systematic Model (HSM; Chaiken, 1980) appear to support theoretically the findings of the current study. Both models posit that decision makers must possess the ability/knowledge and the motivation to process information using the central route (ELM)/systematic (HSM) processing to render decisions. It was expected that legal professionals would rely on the peripheral/heuristic cue of previous expert testimony experience to render their expert witness decisions due to their lack of training in the various areas of psychology. Results revealed that while legal professionals relied on the peripheral cue of previous expert witness experience, they also relied partially on the central cue of area of expertise.

The lack of difference between the groups in rendering adequate expert witness decisions, coupled with the primary influence of a heuristic/peripheral cue (previous expert testimony experience) in choosing the expert, may suggest that neither group possessed the ability/knowledge to complete this task successfully. However, given that legal professionals' "correct" decisions were significantly influenced by a central cue (area of expertise) when presented with the eyewitness memory expert's CV, this suggests that they were capable of central/systematic processing under some circumstances. It is likely the case, however, that a lack of motivation to process the

information systematically is what underlies both groups' use of a heuristic/peripheral cue in rendering decisions. Because participants may have a mental prototype of what an expert witness CV should look like, it may be that both students and legal professionals relied on heuristics in an unconscious effort to conserve cognitive resources while evaluating the information presented. Fiske and Taylor (1984) posit that individuals often rely on mental shortcuts such as heuristics to evaluate information and render decisions because they tend to be "cognitive misers." Cognitive miserliness is not necessarily a function of laziness but rather of the efficient use of one's cognitive resources. Operario and Fiske (1999) found that while the methods used by cognitive misers may be successfully efficient, a major drawback is that suboptimal decisions often result from the use of heuristics/stereotypes. The findings of the current study suggest that participants may have approached as cognitive misers the task of evaluating expert witness suitability such that they relied in part on a heuristic cue to expertise to render expert witness decisions.

Participants' self-ratings of ability/knowledge and motivation were high and legal professionals rated themselves significantly higher than students in these areas. These findings are in line with Kahneman and Klein's (2009) theory of fractionated expertise. The researchers posit that an important problem of fractionated expertise is that it may lead to overconfidence in decision-making on issues for which professionals have little or no skill. Legal professionals' lack of skill in rendering sound psychology expert witness decisions, and high self-ratings of their ability and knowledge to do so suggests that they may possess fractionated expertise. That is, judges and attorneys may have attained a high level of skill in the theory and practice of law yet have not mastered *all* of the

necessary skills required for their work, such as distinguishing between types of psychology experts.

Limitations, Policy Implications, and Future Directions

There are some limitations to the current study that should be considered when interpreting the results. Although the legal professionals who participated in the study represented a "real world" sample, the stimulus case and CV presentations were mere simulations. Specifically, the decisions made by participants in the study lacked the consequentiality of the high stakes decisions that judges and attorneys make in their everyday professional lives. Moreover, the study was administered online such that the case scenario and areas of expert witness testimony were presented in written form via personal computer. Actual trials typically occur in a courtroom with live testimony. Therefore, there was only limited control over how stimulus material was processed. The lack of ecological validity may have affected participants' level of attention and motivation. That is, participants may not have attended to and processed the material as deeply as they may have in an actual courtroom in which they play a role in the outcome of the case.

It appears that judges and attorneys have the *ability* to process systematically the information on an expert's CV but may lack the *skill/training* to process the information accurately. Therefore, future research should focus on improving judges' and attorneys' psychology expert witness decision making. For example, it may be that simply introducing a brief summary of areas of psychology expertise along with the case and CV could enhance legal professionals' ability to identify whether someone possesses the requisite training, education, and practice in the area of testimony required. It may also be

useful to develop a training module in which legal professionals are able to "practice" matching psychology experts to various cases by area of expertise. By offering training on the various areas of psychology expertise, then allowing legal professionals to apply what they have learned to practice cases followed by critical, immediate, and consistent feedback on their performance, legal professionals' skill in this area may improve significantly. The overall low rate of successfully matching the expert's area of expertise to the needs of the case suggests that legal professionals' expert witness decision making may be enhanced through additional training and/or performance feedback. Training on the various areas of psychology expertise and providing feedback to attorneys and judges on their expert witness decisions is likely to enhance expert witness decision making ability thus improve attorneys' ability to cross examination/challenge a proffered expert's qualifications.

Given judges' responsibility as "gatekeepers" in the courtroom, it is critically important that they be highly skilled in distinguishing "good" from "bad" expertise. According to Supreme Court Justice Antonin Scalia, the essence of *Daubert* and *Kumho* is to exclude "expertise that fausse and science that is junky" (*Kumho Tire v. Carmichael*, 1997). Justice Scalia also pointed out that while judges have the discretion to choose the manner in which they determine expert witness reliability, judges do not have the discretion to perform their gatekeeper function inadequately (*Kumho Tire v. Carmichael*, 1997). However, in order for judges to perform their gatekeeper function adequately, they must be provided with sufficient resources such as training on how to infer the reliability of expert testimony through an accurate evaluation of the proffered expert's qualifications/credentials. The United States Supreme Court has effectively determined

that it is a judge's responsibility to evaluate appropriately the credentials of individuals whose education and training differs vastly from his/her own. However, this ruling does not take into account the level of expertise required to sift through various advanced degree specializations. Conversely, it would be equally difficult for a psychologist who has not attended law school to evaluate the credentials of judges and attorneys. Therefore, it may be advisable that judges consult with an objective third-party subject matter expert who can advise them in this regard.

Faigman and Monahan (2009) asserted that courts face an incredible challenge in matching a psychology expert's qualifications to the substantive nature of his/her testimony due to the sheer variety of psychology specialties. The faulty expert witness decision making of the psychology students in this study suggests that even those who receive some training in psychology struggle to distinguish between psychology experts. Therefore, an important future research direction should also examine under which conditions actual psychologists can distinguish between areas of psychology expertise. It may be that graduate training in psychology should include educating students on precisely what their area of expertise is and perhaps more importantly, what it is not. That type of training may be the most effective means of promoting accurate self-selection of future experts thus preventing pseudo psychology expertise from entering the courtroom.

REFERENCES

Anderten, P., Stalcup, V., & Grisso, T. (1980). On being ethical in legal places. *Professional Psychology, 11,* 764-773.

Bargh, J. A. (1984). Automatic and conscious processing of social information. In R.S. Wyer, Jr., & T.K. Srull (Eds.), *Handbook of Social Cognition*, (Vol. 3, pp. 1-43), Hillsdale, NJ: Erlbaum.

Bjork, R. A. (1994). Memory and metamemory considerations in the training of human beings. In J. Metcalfe & A. P. Shimamura (Eds.), *Metacognition: Knowing about knowing* (pp. 185–205). Cambridge, MA: MIT Press.

Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology, 42*, 116-131.

Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology, 39*, 752-766.

Chaiken, S., & Trope, Y. (1999). *Dual-process theories in social psychology*. New York: Guilford Press.

Chen, S., Duckworth, K., & Chaiken, S. (1999). Motivated heuristic and systematic processing. *Psychological Inquiry, 10*, 44-49.

Cooper, J., Bennett, E. A., & Sukel, H. L. (1996). Complex scientific testimony: How do jurors make decisions? *Law and Human Behavior, 20*, 379-394.

Cooper, J., & Neuhaus, I. M. (2000). The ‘‘hired gun’’ effect: Assessing the effect of pay, frequency of testifying, and credentials on the perception of Expert Testimony. *Law and Human Behavior, 24*, 149-171.

Cutler, B. L., & Kovera, M. B. (2011). Expert psychological testimony. *Current Directions in Psychological Science, 20*, 53-57.

Daubert V. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993).

Eagly, A. H., & Chaiken, S. (Eds.). (1993). Process theories of attitude formation and change. In A.H. Eagly & S. Chaiken (Eds.), *The psychology of attitudes* (pp. 303-350) Orlando: Hartcourt Brace.

Faigman, D. L., & Monahan, J. (2009). Standards of legal admissibility and their implications for psychological science. In J. L. Skeem, K.S. Douglas, & S.O. Lilienfeld (Eds.), *Psychological science in the courtroom: Consensus and controversy* (pp. 3-24). New York: The Guilford Press.

Fiske, S.T., & Taylor, S.E. (1984). *Social cognition.* Reading, MA: Addison-Wesley Publishing Company.

Foster, W. L. (1897). Expert testimony: Prevalent complaints and proposed remedies. *Harvard Law Review, 11*, 169-186.

Frye v. United States. 54 App.D.C. 46, 293 F. 1013 (1923).

Gatkowski, S. I., Dobbin, S. A., Richardson, J. T., Ginsburg, G. P., Merlino, M. L., & Dahir, V. (2001). Asking the gatekeepers: A national survey of judges on judging expert evidence in a post-Daubert world. *Law and Human Behavior, 25*, 433-458.

Gutheil, T., & Appelbaum, P. S. (1982). *Clinical handbook of psychiatry and the law.* New York: McGraw-Hill.

Hagan, M. A. (1997). *Whores of the court: the fraud of psychiatric testimony and the rape of American justice.* New York: Regan Books.

Homant, R. J., & Kennedy, D. B. (1987). Subjective factors in clinicians' judgments of insanity: A comparison of a hypothetical and an actual case. *Professional Psychology, 18*, 439-446.

Kahneman, D., & Klein, G. (2009). Conditions for intuitive expertise. *American Psychologist, 64*, 515-526.

Kovera, M. B., & McAuliff, B. D. (2000). The effects of peer review and evidence quality on judge evaluations of psychological science: Are judges effective gatekeepers? *Journal of Applied Psychology, 85*, 574-586.

Kumho Tire v. Carmichael, 526 U.S. 137 (1997)

Maheswaran, D., & Chaiken, S. (1994). Heuristic processing can bias systematic processing: Effects of source credibility, argument ambiguity, and task importance on attitude judgment. *Journal of Personality and Social Psychology, 66*, 460-473.

Marteau, T.M., Wynne, G., Kaye, W., & Evans, T.R. (1990). Resuscitation: Experience without feedback increases confidence but not skill. *British Medical Journal, 300,* 849-850.

McAuliff, B. D. (2009). Judging the validity of psychological science from the bench: A case in point. *Journal of Forensic Psychology Practice, 9*, 310-320.

McAuliff, B. D., & Kovera, M. B. (2008). Juror Need for Cognition and sensitivity to methodological flaws in expert evidence. *Journal of Applied Social Psychology, 38*, 385-408.

McCloskey, M. E., & Eggeth, H. E. (1983). Eyewitness identification: What can a psychologist tell a jury? *American Psychologist, 38*, 550-563.

Monahan, J., & Walker, L. (1988). Social science research in law: A new paradigm. *American Psychologist, 43*, 465-472.

Operario, D., & Fiske, S.T. (1999). Social cognition permeates social psychology: Motivated mental processes guide the study of human social behavior. *Asian Journal of Social Psychology, 2,* 63-78.

Otto, R. K. (1989). Bias and expert testimony of mental health professionals in adversarial proceedings: A preliminary investigation. *Behavioral Sciences & the Law, 7*, 267-273.

Pashler, H., Cepeda, N.J., Wixted, J.T., & Rohrer, D. (2005). When does feedback facilitate learning of words? *Journal of Experimental Psychology: Learning, Memory, and Cognition, 31,* 3-8.

People v. Smith (2004, March 26). 2 Misc.3d 1007(A), 784 N.Y.S.2d 923, 2004 N.Y. Slip Op. 50172(U).

Petty, R. E., & Cacioppo, J. T. (1979). Issue involvement can increase or decrease persuasion by enhancing message-relevant cognitive processes. *Journal of Personality and Social Psychology, 37*, 1915-1926.

Petty, R. E., & Cacioppo, J. T. (1984). The effects of involvement on responses to argument quantity and quality: Central and peripheral routes to persuasion. *Journal of Personality and Social Psychology, 46*, 69-81.

Petty, R. E., & Cacioppo, J. T. (1986a). The elaboration likelihood model of persuasion. In L. Berkowitz (Ed.), *Advances in experimental social psychology.* (Vol. 19, pp. 123-203) New York: Academic Press.

Petty, R. E., & Cacioppo, J. T. (1986b). *Communication and persuasion: Central and peripheral routes to attitude change.* New York: Springer-Verlag.

Petty, R. E., Wheeler, C. & Tormala, Z.L. (2003). Persuasion and attitude change. In T. Millon & M. J. Lerner (Eds.), *Handbook of psychology: Personality and social psychology.* (Vol. 5, pp. 353-382) New York: Wiley.

Petty, R. E., & Cacioppo, J. T. (1990). Involvement and persuasion: Tradition versus integration. *Psychological Bulletin, 107*, 367-374.

Petty, R. E., Wells, G. L., & Brock, T. C. (1976). Distraction can enhance or reduce yielding to propaganda: Thought disruption versus effort justification. *Journal of Personality and Social Psychology, 34*, 874-884.

Ratneshwar, S., & Chaiken, S. (1991). Comprehension's role in persuasion: The case of its moderating effect on the persuasive impact of source cues. *Journal of Consumer Research, 18*, 52-62.

Rosenbaum, D. A., Carlson, R. A., & Gilmore, R. O. (2000). Acquisition of intellectual and perceptual-motor skills. *Annual Review of Psychology*, *52*, 453–470.

Rotter, J. B. (1954). *Social learning and clinical psychology.* Upper Saddle River, NJ: Prentice-Hall, Inc.

Rowe, W. F. (1992). Challenging the expert witness: Exposing incompetence. *Criminal Justice, 7*, 28-31.

Schauer, F. (2010). Is there a psychology of judging? In D.E. Klein & G. Mitchell (Eds.), *The Psychology of Judicial Decision Making (*pp. 103-120). New York: Oxford University Press.

Schetky, D. H., & Colbach, E. M. (1982). Countertransference on the witness stand: A flight from self. *Bulletin of the American Academy of Psychiatry & the Law, 10*, 115-121.

Schmidt, R. A., & Bjork, R. (1992). New conceptualizations of practice: Common principles in three paradigms suggest new concepts for training. *Psychological Science*, *3*, 207–217.

Schweitzer, N. J., & Saks, M. J. (2009). The gatekeeper effect: The impact of judges' admissibility decisions on the persuasiveness of expert testimony. *Psychology, Public Policy and Law, 15*, 1-18.

Shanteau, J. (1992). Competence in experts: The role of task characteristics. *Organizational Behavior and Human Decision Processes, 53*, 252-262.

Swenson, R. A., Nash, D. L., & Roos, D. L. (1984). Source credibility and perceived expertness of testimony in a child custody case. *Professional Psychology, 15,* 891-898.

Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science, 185*, 1124-1131.

Vidmar, N. (2011). The psychology of trial judging. *Current Directions in Psychological Science, 20*, 58-62.

APPENDICES

APPENDIX A

Stimulus Case – Legal Psychology Expert

State v. Smith

Factual Background. At 2:30 am on August 5, 2009, a man was shot and killed. He was 19 years old. Just prior to his death, he was walking down the street with a friend when the perpetrator approached him from behind and shot him in the back of the head killing him. Two eyewitnesses were crossing the street at the same time as the alleged killer and were able to provide the police with a description of the man.

The witnesses described the shooter as a black man, approximately six feet tall, with a thick nose and corn row braids, wearing a black, three quarter length pea coat style leather jacket, a red shirt, dark jeans and black Timberland boots. The witnesses observed the shooter walking with two other men, under streetlights, with a gun in his hand. They saw the shooter approach the victim and either saw or heard him shoot the victim and then flee. According to the victim's family, they knew the defendant from the neighborhood and they gave the police the defendant's name.

Ten days after the incident, the police assembled a photographic lineup using a six photo array. Separate lineup procedures were conducted with each of the eyewitnesses. The witnesses were told that the perpetrator may or may not be in the lineup (thus the witnesses recognized that one of their options was to simply state that the person that they had seen was not present in the lineup). Each of the eyewitnesses picked the defendant's photograph out of the lineup. The defendant was arrested, admitted to having braids at the time of the incident, and admitted to being in the vicinity of the shooting at the time of the shooting while wearing a black leather jacket, a red shirt, black sweat pants, and black Timberland boots. The defendant was indicted on a variety of charges, including Murder in the Second Degree.

In the weeks before the incident, the defendant had been working the overnight shift but he was not at work at the time of the murder. According to the defendant's girlfriend, the defendant told her that although he matched the physical description of the suspect, he did not kill the victim. Therefore, the defendant made a motion to be permitted to present testimony at trial of an expert in eyewitness identification. The defendant advised that such expert would testify in various areas: (1) the effect of weapon focus on identification; (2) unconscious transference; (3) lack of correlation between confidence and accuracy in eyewitness identification; (4) the effect of post event information on identification; and (5) confidence malleability. After hearing argument from the parties, the Court will allow testimony on the proffered five areas of testimony.

Expert Witness Testimony

Dr. Jones will provide expert witness testimony on the scientific research below:

- The Weapon Focus Effect. Weapon Focus refers to the focus or attention that an eyewitness gives to a perpetrator's weapon during the course of a crime at the expense of other to-be-remembered items or people. Weapon focus is a factor affecting the reliability of eyewitness testimony and signifies a witness to a crime diverting his or her attention to the weapon the perpetrator is holding, thus leaving less attention for other details in the scene and leading to memory impairments later for those other details.

- Post Event Information (PEI) Effect. The PEI effect refers to the notion that eyewitnesses' recollection of an event is influenced by information, sometimes incorrect, obtained after the event. Post-event information can be disseminated inadvertently by co-witnesses and police through the use of leading, suggestive questions and successive retellings of the sequence of events.

- Unconscious Transference. Unconscious transference refers to the notion that people can misidentify and get confused about the context in which they have seen people and mistakenly associate them with the wrong situation or context. Specifically, this refers to an eyewitness's misidentification of an innocent bystander because of the witness's exposure to the bystander in another context. This can happen either before, after, or during an event.

- Confidence and Accuracy non-Correlation. This refers to the lack of a strong overall relationship between the accuracy of an eyewitness identification and the confidence the witness expresses in such identification. Findings detailed in various studies have shown that there is a lack of correlation between eyewitness confidence and the accuracy of their identifications.

- Confidence Malleability. This refers to the notion that an eyewitness's confidence can be influenced by factors that are unrelated to identification accuracy such as confirming feedback from the police officers (i.e., "Good job! You picked out the right guy!") and biased lineup instructions (i.e., failing to inform the eyewitness that the perpetrator may or may not be in the lineup).

Stimulus Case – Clinical Psychology Expert

State v. Smith

Factual Background. At 2:30 am on August 5, 2009, a man was stabbed and killed. He was 19 years old. Just prior to his death, he was walking down the street with a friend when the perpetrator approached him from behind and stabbed him in his upper back killing him. Two eyewitnesses were crossing the street at the same time as the alleged killer and were able to provide the police with a description of the man.

The witnesses described the culprit as a black man, approximately six feet tall, with a thick nose and corn row braids, wearing a black, three quarter length pea coat style leather jacket, a red shirt, dark jeans and black Timberland boots. The witnesses observed the suspect walking with two other men, under streetlights, with a knife in his hand. They saw the suspect approach the victim, stab the victim, and then flee. According to the victim's family, they knew the defendant from the neighborhood and they gave the police the defendant's name.

Ten days after the incident, the police assembled a photographic lineup using a six photo array. Separate lineup procedures were conducted with each of the eyewitnesses. The witnesses were told that the perpetrator may or may not be in the lineup (thus the witnesses recognized that one of their options was to simply state that the person that they had seen was not present in the lineup). Each of the eyewitnesses picked the defendant's photograph out of the lineup. The defendant was arrested, admitted to having braids at the time of the incident, and admitted to being in the vicinity of the stabbing at the time of the murder while wearing a black leather jacket, a red shirt, black sweat pants, and black Timberland boots. The defendant was indicted on a variety of charges, including Murder in the Second Degree.

In the weeks before the incident, the defendant had been admitted to a psychiatric hospital, stating that he felt detached from reality and "was not in his right mind" but he had been released from the hospital at the time of the murder. According to the defendant's girlfriend, the defendant had a history of violent behavior, was a heavy drinker, used drugs recreationally and always felt that others were 'out to get him'. Her boyfriend told her that he had been drinking the night of the alleged murder, remembered seeing the victim and was not in control of his actions the night of the alleged murder. However, he does not believe that he killed the victim. Therefore, the defendant made a motion to be permitted to present testimony at trial of an expert in mental health. The defendant advised that such expert would testify in various areas: (1) the relationship between violent and homicidal behavior (2) the characteristics of psychotic episodes (3) the characteristics and behavioral components of paranoid schizophrenia; (4) the effects of severe alcoholism and drug use on paranoid schizophrenia symptoms; and, (5) psychological factors that lead to diminished capacity to appreciate the wrongfulness and consequences of one's actions. After hearing argument from the parties, the Court will allow expert witness testimony in the proffered five areas of expertise.

Expert Witness Testimony

Dr. Jones will provide expert witness testimony on the scientific research below:

- The Behavioral Correlates of Psychotic Episodes. Psychosis refers to a loss of contact with reality, usually including false beliefs about what is taking place or who one is (delusions) and seeing or hearing things that are not there (hallucinations). Psychosis may be caused by certain medical conditions such as alcohol and drug abuse, and brain diseases such as tumors, HIV and other infections, and dementia. It can also be caused by psychiatric disorders such as bipolar disorder, depression with psychotic features, and/or schizophrenia.

- Alcoholism and Drug Addiction Effects on Mentally Ill Individuals. Alcoholism refers to signs of physical addiction to alcohol and that an individual continues to drink, despite problems with physical health, mental health, and social, family, or job responsibilities. Drug addiction refers to the compulsive use of a substance, despite its negative or dangerous effects. Individuals who suffer from certain psychiatric disorders, such as bipolar disorder or schizophrenia, are more likely than others to suffer from alcohol and drug addictions.

- Paranoid schizophrenia refers to one of several types of schizophrenia, a chronic mental illness in which a person loses touch with reality (psychosis). The classic features of paranoid schizophrenia are having delusions and hearing things that are not real. With paranoid schizophrenia, the ability to think and function in daily life may be better than with other types of schizophrenia. Paranoid schizophrenia is a serious, lifelong condition that can lead to many complications, including violent behavior.

- The Relationship between Violent and Homicidal Behavior. This refers to the research on structural brain abnormalities and dysfunction and the relationship between brain abnormalities and violent, aggressive, and homicidal behavior in particular.

- Psychological Factors that Lead to Diminished Capacity. Diminished capacity refers to the inability to appreciate the consequences of one's actions and/or the ability to act in a premeditated manner due to mental defect/disease.

APPENDIX B

CV #1 – Clinical x Previous Expert Experience x Publications

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2004 – Present	Clinical Forensic Psychologist Private Practice Naples, Florida

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1999 – 2001	Postdoctoral Fellow in Clinical Psychology and Faculty Veteran Affairs Maryland Health Care System Baltimore VA Medical Center, University of Maryland Medical School.

PUBLICATIONS

Jones, C., Cernich, A., Short, P., Kane, R., & Morris, M. (2011). Predicting Memory Performance in Mentally Ill Patients. Journal of Nutritional and Environmental Medicine, 11, 25-34.

Jones, C., & Kane, R. (2011). Psychological Perspectives of Competency Assessment: A Review. American Academy of Psychiatry and the Law, 35, 119-124.

Harrell, E.H., Jones, W. B., Jones, C., & Krusz, J.C. (2010). Psychological Profile Associated with Committing Acts of Violence. Journal of Violent Criminal Behavior, 12, 7-17.

Jones, C., Rogers, R.R. & Adams, P.A. (2010). Dangerousness and Command Hallucinations: An Investigation of Psychotic Inpatients. American Academy of Psychiatry and the Law, 24, 214-2223.

Reilly, P.M., Jones, C., & Shopshire, M.S. (2010). Anger management strategies associated with decreased anger in substance abuse patients. NIDA: Washington, DC.

Reilly, P.M., Shopshire, M.S., Clark, H.W., Jones, C., Campbell, T.A., & Llanes, S.J. (2010). Substance use associated with decreased anger across a 12-week cognitive-behavioral anger-management treatment. NIDA: Washington, DC.

Jones, C., Iacono, W. G., & Danielson, K. (2010). The identification of concealed memories using the event-related potential and implicit behavioral measures: A methodology for prediction in the face of individual differences. Psychophysiology, 29, 504–522.

Jones, C., Maruish, M. E., Imhof, E. A., & Piotrowski, C. (2009). Psychological test usage with violent offenders. Professional Psychology: Research and Practice, 22, 247–252.

Archer, R. P., & Newsom, C. R., Jones, C. (2009). Psychological test usage with forensic populations: Survey update. Assessment, 7, 227–236.

Pancoast, D. L., Jones, C., & Klinefelter, D. (2009). A comparison of MMPI code types produced by traditional and recent adolescent norms. Psychological Assessment, 1, 23–29.

Jones, C., Archer, R. P., Tirrell, C., & Elkins, D. E. (2008). Evaluation of an MMPI-A short form: Implications for adaptive testing. Journal of Personality Assessment, 76, 76–89.

Jones, C., & Brodsky, S. L. (2008). Testifying in court: Guidelines and maxims for the expert witness. Washington, DC: American Psychological Association.

Jones, C., & Otto, R. K. (2008). Bias and expert testimony of mental health professionals in adversarial proceedings: A preliminary investigation. Behavioral Sciences and the Law, 7, 267–273.

Jones, C. (2008). Discussion of the Forensic Specialty Guidelines. St. Petersburg, Florida: Panel presented at the annual meeting of the American Psychology-Law Society.

Heilbrun, K., & Jones, C. (2007). The practice of forensic psychology: A look toward the future in light of the past. American Psychologist, 57, 5–18.

Buis, T., Nicholson, R. A., & Jones, C., (2005). Relative effectiveness of the standard validity scales in detecting fake-bad and fake-good responding: Replication and extension. Psychological Assessment, 7, 84–92.

Bagby, R. M., Gillis, J. R., Toner, B. B., Jones, C., & Goldberg, J. (2004). Detecting fake-good and fake-bad responding on the Millon Clinical Multiaxial Inventory-II. Psychological Assessment, 3, 496–498.

Jones, C., Bakker-Rabdau, M., & Breit, S. (2003). The measurement of assertiveness and aggressiveness. Journal of Personality Assessment, 42, 277–284.

Benton, A. L., & Jones, C. (2003). Differential neuropsychological and behavioral effects in frontal lobe disease. Neuropsychologia, 6, 53–60.

Jones, C., & Benton, A. L. (2002). The Revised Schizophrenia Assessment (4th ed.). New York: Psychological Corporation.

Jones, C. (2002). The biopsychosocial profile of violent and homicidal individuals. In K. M. Heilman & E. Valenstein (Eds.), Clinical neuropsychology (pp. 186–232). New York: Oxford University Press.

Tombaugh, T. N. & Jones, C. (2001). The Test of Memory Malingering (TOMM) in Forensic Psychology. Journal of Forensic Neuropsychology, 2(3), 69-96.

Jones, C. (2001). The psychologist as expert witness (2nd ed.). New York: Wiley.

Jones, C. (2001). Normative data on selected neuropsychological measures from a nonclinical sample. Journal of Clinical Psychology, 41, 651–659.

Jones, C., Notwinick, J., & Kornstein, R. A. (2001). Normative data on intermanual differences on three tests of motor performance. Journal of Clinical and Experimental Neuropsychology, 8, 12–20.

Storandt, M., Berg, F. W., Jones, C., & Boland, S. (2000). Psychosis in the Paranoid Schizophrenic type: Subject attrition and testability in research. Archives of Neurology,
45, 493–496.

Dodds, B., Jones, C., Whelan, G., Long, C., Dudgeon, P., Ritter, A., et al. (2000). Confirmatory factor analysis of the Wechsler Memory Scale-Revised in a sample of clients with alcohol dependence. Journal of Clinical and Experimental Neuropsychology,
19, 755–762.

Jous, M. L., & Jones, C. (1999). Forensic neuropsychology: The art of practicing a science that does not yet exist. Neuropsychology Review, 2, 205–231.

Faust, D., Ziskin, J., Jones, C. (1998). Computer-assisted psychological evaluation as legal evidence: Someday my prints will come. Computers in Human Behavior, 5, 23–36.

Ziskin, J., Jones, C., & Hiers, J. B. (1998). Brain damage claims: Coping with neuropsychological evidence (Vols. 1–2). Los Angeles: Law and Psychology Press

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PUBLICATIONS

Jones, C., Cernich, A., Short, P., Kane, R., & Morris, M. (2011). Retrieval induced forgetting in an eyewitness memory paradigm. Journal of Memory Performance, 11, 25-34.

Jones, C., & Kane, R. (2011). Psychological perspectives of eyewitness memory: A review. American Academy of Psychiatry and the Law, 35, 119-124.

Harrell, E.H., Jones, W. B., Jones, C., & Krusz, J.C. (2010). Misinformation effects in eyewitness memory: The presence and absence of memory impairment as a function of warning and misinformation accessibility. Journal of Experimental Psychology, 12, 7-17.

Jones, C., Rogers, R.R. & Adams, P.A. (2010). Juror sensitivity to eyewitness identification evidence. American Academy of Psychiatry and the Law, 24, 214-223.

Reilly, P.M., Jones, C., & Shopshire, M.S. (2010). Actual victims and witnesses to robbery and fraud. In L.S. Harris (Ed.), Witnesses to crime. NIDA: Washington, DC.

Reilly, P.M., Shopshire, M.S., Clark, H.W., Jones, C., Campbell, T.A., & Llanes, S.J. (2010). Attentional and memory bias for emotional information in crime victims with post-traumatic stress disorder. Journal of anxiety disorders, 34, 268-292.

Jones, C., Iacono, W. G., & Danielson, K. (2010). The identification of perpetrators using implicit memory measures. Psychophysiology, 29, 504–522.

Jones, C., Maruish, M. E., Imhof, E. A., & Piotrowski, C. (2009). Crime and memory. Professional Psychology: Research and Practice, 22, 247–252.

Archer, R. P., & Newsom, C. R., Jones, C. (2009). The face of crime: Viewers' memory of race-related facial features of individuals pictured in the news. Journal of Communication, 7, 227–236.

Pancoast, D. L., Jones, C., & Klinefelter, D. (2009). Assessing eyewitness memory. Psychological Assessment, 1, 23–29.

Jones, C., Archer, R. P., Tirrell, C., & Elkins, D. E. (2008). Memory observed: Remembering in natural contexts. Journal of Memory Assessment, 76, 76–89.

Jones, C., & Brodsky, S. L. (2008). Testifying in court: Guidelines and maxims for the expert witness. Washington, DC: American Psychological Association.

Jones, C., & Otto, R. K. (2008). Bias and expert testimony of mental health professionals in adversarial proceedings: A preliminary investigation. Behavioral Sciences and the Law, 7, 267–273.

Jones, C. (2008). Discussion of the Experimental Psychology Specialty Guidelines. St. Petersburg, Florida: Panel presented at the annual meeting of the American Psychology-Law Society.

Heilbrun, K., & Jones, C. (2007). Emotional stress and eyewitness memory. American Psychologist, 57, 5–18.

Buis, T., Nicholson, R. A., & Jones, C., (2005). Source misattributions and memory suggestibility. Journal of Law and Psychology, 7, 84–92.

Bagby, R. M., Gillis, J. R., Toner, B. B., Jones, C., & Goldberg, J. (2004). The unconscious transference effect: Are innocent bystanders ever misidentified? Applied Cognitive Psychology, 3, 496–498.

Jones, C., Bakker-Rabdau, M., & Breit, S. (2003). The effects of anxious mood induction on suggestibility to misleading post-event information. Journal of Experimental Psychology, 42, 277–284.

Benton, A. L., & Jones, C. (2003). Bias in photospreads of faces: A comparison of two lineup construction methods. Human Factors and Ergonomics, 6, 53–60.

Jones, C., & Benton, A. L. (2002). The Revised Visual Memory Assessment (4th ed.). New York: Psychological Corporation.

Jones, C. (2002). The art of improving eyewitness memory. New York: Oxford University Press.

Tombaugh, T. N. & Jones, C. (2001). Watching the bird watching you: Eyewitness memory for actions using CCTV recordings of actual crimes. Journal of Applied Psychology, 2(3), 69-96.

Jones, C. (2001). The psychologist as expert witness (2nd ed.). New York: Wiley.

Jones, C. (2001). Normative data on selected memory measures from a nonclinical sample. Journal of Experimental Psychology: Applied, 41, 651–659.

Jones, C., Notwinick, J., & Kornstein, R. A. (2001). Normative data on eyewitness accuracy and confidence. Journal of Behavioral Sciences and the Law, 8, 12–20.

Storandt, M., Berg, F. W., Jones, C., & Boland, S. (2000). Accuracy, confidence and juror perceptions of eyewitness memory, Journal of Applied Psychology, 45, 493–496.

Dodds, B., Jones, C., Whelan, G., Long, C., Dudgeon, P., Ritter, A., et al. (2000). Leading and suggestive questions and memory. Journal Experimental Neuropsychology, 19, 755–762.

Jous, M. L., & Jones, C.. (1999). Source memory and the eyewitness suggestibility effect. Psychology Review, 2, 205–231.

Faust, D., Ziskin, J., Jones, C. (1998). Computer-assisted photographic lineups as legal evidence: Someday my prints will come. Computers in Human Behavior, 5, 23–36.

Ziskin, J., Jones, C., & Hiers, J. B. (1998). Repeated post-event questioning can lead to elevated levels of eyewitness confidence. Los Angeles: Law and Psychology Press.

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B.A., Psychology	Temple University, Philadelphia, August 1990

PROFESSIONAL AFFILIATIONS

American Board of Professional Psychology-Diplomate
American Academy of Clinical Psychology- Fellow
Florida Psychological Association -Treasurer
Florida School of Professional Psychology –adjunct faculty
American Psychological Association- member
Florida Psychological Association-member

PROFESSIONAL EXPERIENCE

2004 – Present	Clinical Forensic Psychologist Private Practice Naples, Florida

1999 – 2003	Staff Psychologist VA Maryland Health Care System Department of Veteran Affairs Medical Center, University of Maryland School of Medicine.
1999 – 2001	Postdoctoral Fellow in Clinical Psychology and Faculty Veteran Affairs Maryland Health Care System Baltimore VA Medical Center, University of Maryland Medical School.

PUBLICATIONS

Jones, C., Cernich, A., Short, P., Kane, R., & Morris, M. (2011). Predicting Memory Performance in Mentally Ill Patients. Journal of Nutritional and Environmental Medicine, 11, 25-34.

Jones, C., & Kane, R. (2011). Psychological Perspectives of Competency Assessment: A Review. American Academy of Psychiatry and the Law, 35, 119-124.

Harrell, E.H., Jones, W. B., Jones, C., & Krusz, J.C. (2010). Psychological Profile Associated with Committing Acts of Violence. Journal of Violent Criminal Behavior, 12, 7-17.

Jones, C., Rogers, R.R. & Adams, P.A. (2010). Dangerousness and Command Hallucinations: An Investigation of Psychotic Inpatients. American Academy of Psychiatry and the Law, 24, 214-2223.

Reilly, P.M., Jones, C., & Shopshire, M.S. (2010). Anger management strategies associated with decreased anger in substance abuse patients. NIDA: Washington, DC.

Reilly, P.M., Shopshire, M.S., Clark, H.W., Jones, C., Campbell, T.A., & Llanes, S.J. (2010). Substance use associated with decreased anger across a 12-week cognitive-behavioral anger-management treatment. NIDA: Washington, DC.

Jones, C., Iacono, W. G., & Danielson, K. (2010). The identification of concealed memories using the event-related potential and implicit behavioral measures: A methodology for prediction in the face of individual differences. Psychophysiology, 29, 504–522.

Jones, C., Maruish, M. E., Imhof, E. A., & Piotrowski, C. (2009). Psychological test usage with violent offenders. Professional Psychology: Research and Practice, 22, 247–252.

Archer, R. P., & Newsom, C. R., Jones, C. (2009). Psychological test usage with forensic populations: Survey update. Assessment, 7, 227–236.

Pancoast, D. L., Jones, C., & Klinefelter, D. (2009). A comparison of MMPI code types produced by traditional and recent adolescent norms. Psychological Assessment, 1, 23–29.

Jones, C., Archer, R. P., Tirrell, C., & Elkins, D. E. (2008). Evaluation of an MMPI-A short form: Implications for adaptive testing. Journal of Personality Assessment, 76, 76–89.

Jones, C., & Brodsky, S. L. (2008). Testifying in court: Guidelines and maxims for the expert witness. Washington, DC: American Psychological Association.

Jones, C., & Otto, R. K. (2008). Bias and expert testimony of mental health professionals in adversarial proceedings: A preliminary investigation. Behavioral Sciences and the Law, 7, 267–273.

Jones, C. (2008). Discussion of the Forensic Specialty Guidelines. St. Petersburg, Florida: Panel presented at the annual meeting of the American Psychology-Law Society.

Heilbrun, K., & Jones, C. (2007). The practice of forensic psychology: A look toward the future in light of the past. American Psychologist, 57, 5–18.

Buis, T., Nicholson, R. A., & Jones, C., (2005). Relative effectiveness of the standard validity scales in detecting fake-bad and fake-good responding: Replication and extension. Psychological Assessment, 7, 84–92.

Bagby, R. M., Gillis, J. R., Toner, B. B., Jones, C., & Goldberg, J. (2004). Detecting fake-good and fake-bad responding on the Millon Clinical Multiaxial Inventory-II. Psychological Assessment, 3, 496–498.

Jones, C., Bakker-Rabdau, M., & Breit, S. (2003). The measurement of assertiveness and aggressiveness. Journal of Personality Assessment, 42, 277–284.

Benton, A. L., & Jones, C. (2003). Differential neuropsychological and behavioral effects in frontal lobe disease. Neuropsychologia, 6, 53–60.

Jones, C., & Benton, A. L. (2002). The Revised Schizophrenia Assessment (4th ed.). New York: Psychological Corporation.

Jones, C. (2002). The biopsychosocial profile of violent and homicidal individuals. In K. M. Heilman & E. Valenstein (Eds.), Clinical neuropsychology (pp. 186–232). New York: Oxford University Press.

Tombaugh, T. N. & Jones, C. (2001). The Test of Memory Malingering (TOMM) in Forensic Psychology. Journal of Forensic Neuropsychology, 2(3), 69-96.

Jones, C. (2001). The psychologist as expert witness (2nd ed.). New York: Wiley.

Jones, C. (2001). Normative data on selected neuropsychological measures from a nonclinical sample. Journal of Clinical Psychology, 41, 651–659.

Jones, C., Notwinick, J., & Kornstein, R. A. (2001). Normative data on intermanual differences on three tests of motor performance. Journal of Clinical and Experimental Neuropsychology, 8, 12–20.

Storandt, M., Berg, F. W., Jones, C., & Boland, S. (2000). Psychosis in the Paranoid Schizophrenic type: Subject attrition and testability in research. Archives of Neurology,
45, 493–496.

Dodds, B., Jones, C., Whelan, G., Long, C., Dudgeon, P., Ritter, A., et al. (2000). Confirmatory factor analysis of the Wechsler Memory Scale-Revised in a sample of clients with alcohol dependence. Journal of Clinical and Experimental Neuropsychology,
19, 755–762.

Jous, M. L., & Jones, C. (1999). Forensic neuropsychology: The art of practicing a science that does not yet exist. Neuropsychology Review, 2, 205–231.

Faust, D., Ziskin, J., Jones, C. (1998). Computer-assisted psychological evaluation as legal evidence: Someday my prints will come. Computers in Human Behavior, 5, 23–36.

Ziskin, J., Jones, C., & Hiers, J. B. (1998). Brain damage claims: Coping with neuropsychological evidence (Vols. 1–2). Los Angeles: Law and Psychology Press.

CV #6 – Clinical x No Previous Expert Experience x No Publications

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EDUCATION AND TRAINING

Postdoctoral Fellowship	September 2001 VA Maryland Health Care System University of Maryland Medical Center
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B.A., Psychology	Temple University, Philadelphia, August 1990

PROFESSIONAL AFFILIATIONS

American Board of Professional Psychology-Diplomate
American Academy of Psychology- Fellow
Florida Psychological Association -Treasurer
Florida School of Professional Psychology –adjunct faculty
American Psychological Association- member
Florida Psychological Association-member

PROFESSIONAL EXPERIENCE

2004 – Present	Clinical Forensic Psychologist Private Practice Naples, Florida
1999 – 2003	Staff Psychologist VA Maryland Health Care System Department of Veteran Affairs Medical Center, University of

	Maryland School of Medicine.
1999 – 2001	Postdoctoral Fellow in Clinical Psychology and Faculty Veteran Affairs Maryland Health Care System Baltimore VA Medical Center, University of Maryland Medical School.

No Previous Expert Witness Testimony Experience

PUBLICATIONS
None.

CV #7 – Experimental x No Previous Expert Experience x Publications

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Postdoctoral Fellowship	September 2001 University of Maryland, College Park, Maryland
Ph.D., Experimental Psychology	August 1999 University of Florida, Gainesville, Florida
M.S., Experimental Psychology	University of Florida, August 1996
B.A., Psychology	Temple University, Philadelphia, August 1990

PROFESSIONAL AFFILIATIONS

American Board of Professional Psychology-Diplomate
American Academy of Psychology- Fellow
Florida Psychological Association -Treasurer
Florida School of Professional Psychology –adjunct faculty
American Psychological Association- member
Florida Psychological Association-member

PROFESSIONAL EXPERIENCE

2008 – Present	Associate Professor of Legal Psychology University of South Florida Tampa, Florida
2001 – 2008	Assistant Professor of Legal Psychology University of South Florida Tampa, Florida 1999 – 2001

1999 – 2001 Postdoctoral Research Fellow in Experimental Legal Psychology
University of Maryland
College Park, Maryland

No Previous Expert Witness Testimony Experience

PUBLICATIONS

Jones, C., Cernich, A., Short, P., Kane, R., & Morris, M. (2011). Retrieval induced forgetting in an eyewitness memory paradigm. Journal of Memory Performance, 11, 25-34.

Jones, C., & Kane, R. (2011). Psychological perspectives of eyewitness memory: A review. American Academy of Psychiatry and the Law, 35, 119-124.

Harrell, E.H., Jones, W. B., Jones, C., & Krusz, J.C. (2010). Misinformation effects in eyewitness memory: The presence and absence of memory impairment as a function of warning and misinformation accessibility. Journal of Experimental Psychology, 12, 7-17.

Jones, C., Rogers, R.R. & Adams, P.A. (2010). Juror sensitivity to eyewitness identification evidence. American Academy of Psychiatry and the Law, 24, 214-223.

Reilly, P.M., Jones, C., & Shopshire, M.S. (2010). Actual victims and witnesses to robbery and fraud. In L.S. Harris (Ed.), Witnesses to crime. NIDA: Washington, DC.

Reilly, P.M., Shopshire, M.S., Clark, H.W., Jones, C., Campbell, T.A., & Llanes, S.J. (2010). Attentional and memory bias for emotional information in crime victims with post-traumatic stress disorder. Journal of anxiety disorders, 34, 268-292.

Jones, C., Iacono, W. G., & Danielson, K. (2010). The identification of perpetrators using implicit memory measures. Psychophysiology, 29, 504–522.

Jones, C., Maruish, M. E., Imhof, E. A., & Piotrowski, C. (2009). Crime and memory. Professional Psychology: Research and Practice, 22, 247–252.

Archer, R. P., & Newsom, C. R., Jones, C. (2009). The face of crime: Viewers' memory of race-related facial features of individuals pictured in the news. Journal of Communication, 7, 227–236.

Pancoast, D. L., Jones, C., & Klinefelter, D. (2009). Assessing eyewitness memory. Psychological Assessment, 1, 23–29.

Jones, C., Archer, R. P., Tirrell, C., & Elkins, D. E. (2008). Memory observed: Remembering in natural contexts. Journal of Memory Assessment, 76, 76–89.

Jones, C., & Brodsky, S. L. (2008). Testifying in court: Guidelines and maxims for the expert witness. Washington, DC: American Psychological Association.

Jones, C., & Otto, R. K. (2008). Bias and expert testimony of mental health professionals in adversarial proceedings: A preliminary investigation. Behavioral Sciences and the Law, 7, 267–273.

Jones, C. (2008). Discussion of the Experimental Psychology Specialty Guidelines. St. Petersburg, Florida: Panel presented at the annual meeting of the American Psychology-Law Society.

Heilbrun, K., & Jones, C. (2007). Emotional stress and eyewitness memory. American Psychologist, 57, 5–18.

Buis, T., Nicholson, R. A., & Jones, C., (2005). Source misattributions and memory suggestibility. Journal of Law and Psychology, 7, 84–92.

Bagby, R. M., Gillis, J. R., Toner, B. B., Jones, C., & Goldberg, J. (2004). The unconscious transference effect: Are innocent bystanders ever misidentified? Applied Cognitive Psychology, 3, 496–498.

Jones, C., Bakker-Rabdau, M., & Breit, S. (2003). The effects of anxious mood induction on suggestibility to misleading post-event information. Journal of Experimental Psychology, 42, 277–284.

Benton, A. L., & Jones, C. (2003). Bias in photospreads of faces: A comparison of two lineup construction methods. Human Factors and Ergonomics, 6, 53–60.

Jones, C., & Benton, A. L. (2002). The Revised Visual Memory Assessment (4th ed.). New York: Psychological Corporation.

Jones, C. (2002). The art of improving eyewitness memory. New York: Oxford University Press.

Tombaugh, T. N. & Jones, C. (2001). Watching the bird watching you: Eyewitness memory for actions using CCTV recordings of actual crimes. Journal of Applied Psychology, 2(3), 69-96.

Jones, C. (2001). The psychologist as expert witness (2nd ed.). New York: Wiley.

Jones, C. (2001). Normative data on selected memory measures from a nonclinical sample. Journal of Experimental Psychology: Applied, 41, 651–659.

Jones, C., Notwinick, J., & Kornstein, R. A. (2001). Normative data on eyewitness accuracy and confidence. Journal of Behavioral Sciences and the Law, 8, 12–20.

Storandt, M., Berg, F. W., Jones, C., & Boland, S. (2000). Accuracy, confidence and juror perceptions of eyewitness memory, Journal of Applied Psychology, 45, 493–496.

Dodds, B., Jones, C., Whelan, G., Long, C., Dudgeon, P., Ritter, A., et al. (2000). Leading and suggestive questions and memory. Journal Experimental Neuropsychology, 19, 755–762.

Jous, M. L., & Jones, C.. (1999). Source memory and the eyewitness suggestibility effect. Psychology Review, 2, 205–231.

Faust, D., Ziskin, J., Jones, C. (1998). Computer-assisted photographic lineups as legal evidence: Someday my prints will come. Computers in Human Behavior, 5, 23–36.

Ziskin, J., Jones, C., & Hiers, J. B. (1998). Repeated post-event questioning can lead to elevated levels of eyewitness confidence. Los Angeles: Law and Psychology Press.

CV #8 – Experimental x No Previous Expert Experience x No Publications

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EDUCATION AND TRAINING

Postdoctoral Fellowship	September 2001 University of Maryland, College Park, Maryland
Ph.D., Experimental Psychology	August 1999 University of Florida, Gainesville, Florida
M.S., Experimental Psychology	University of Florida, August 1996
B.A., Psychology	Temple University, Philadelphia, August 1990

PROFESSIONAL AFFILIATIONS

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American Academy of Psychology- Fellow
Florida Psychological Association -Treasurer
Florida School of Professional Psychology –adjunct faculty
American Psychological Association- member
Florida Psychological Association-member

PROFESSIONAL EXPERIENCE

2008 – Present	Associate Professor of Legal Psychology University of South Florida Tampa, Florida
2001 – 2008	Assistant Professor of Legal Psychology University of South Florida Tampa, Florida 1999 – 2001

1999 – 2001	Postdoctoral Research Fellow in Experimental Legal Psychology University of Maryland College Park, Maryland

PUBLICATIONS
None.

APPENDIX C

Post hoc Questionnaire

1. In your opinion, is Dr. Jones an expert in the areas of proffered testimony?
    a. Yes (Dr. Jones IS an expert in these areas)
    b. No (Dr. Jones IS NOT an expert in these areas)

2. How confident are you in this decision?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
not at all confident										completely confident

3. How likely are you to appoint (hire/choose) Dr. Jones to testify as an expert in the areas of proffered testimony?
    a. Not at all likely (1)
    b. Unlikely (2)
    c. Somewhat Unlikely (3)
    d. Neither Likely nor Unlikely (4)
    e. Somewhat Likely (5)
    f. Likely (6)
    g. Entirely likely (7)

4. Dr. Jones is competent in the field of expertise that s/he purports to address at trial.
    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

5. Dr. Jones possesses the skills necessary to assume that the information imparted or the opinion rendered is reliable.
    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

6. Dr. Jones possesses the required training to assume that the information imparted or the opinion rendered is reliable
    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

7. Dr. Jones possesses the required education to assume that the information imparted or the opinion rendered is reliable
    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

8. Dr. Jones possesses the required knowledge to assume that the information imparted or the opinion rendered is reliable
    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

9. Dr. Jones possesses the required experience to assume that the information imparted or the opinion rendered is reliable.
    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

10. Dr. Jones' testimony is likely to be based on a scientific principle which has been sufficiently established to have gained general acceptance in the particular field in which it belongs.
    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

11. Dr. Jones' testimony is likely to be based on a scientific procedure which has been sufficiently established to have gained general acceptance in the particular field in which it belongs.
    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

12. Dr. Jones' testimony is beyond the knowledge or perception of the jury.
    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

13. Dr. Jones' opinion is relevant to the issues and facts of the individual case.

    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

14. How important were Dr. Jones' academic credentials in your decision-making process?

    a. Not at all Important (1)
    b. Very Unimportant (2)
    c. Somewhat Unimportant (3)
    d. Neither Important nor Unimportant (4)
    e. Somewhat Important (5)
    f. Very Important (6)
    g. Extremely Important (7)

15. How important was Dr. Jones' specific area of academic training in your decision-making process?

    a. Not at all Important (1)
    b. Very Unimportant (2)
    c. Somewhat Unimportant (3)
    d. Neither Important nor Unimportant (4)
    e. Somewhat Important (5)
    f. Very Important (6)
    g. Extremely Important (7)

16. How important were Dr. Jones' professional credentials in your decision-making process?

    a. Not at all Important (1)
    b. Very Unimportant (2)
    c. Somewhat Unimportant (3)
    d. Neither Important nor Unimportant (4)
    e. Somewhat Important (5)
    f. Very Important (6)
    g. Extremely Important (7)

17. How important was Dr. Jones' previous experience as an expert witness in your decision-making process?

    a. Not at all Important (1)
    b. Very Unimportant (2)
    c. Somewhat Unimportant (3)
    d. Neither Important nor Unimportant (4)
    e. Somewhat Important (5)
    f. Very Important (6)
    g. Extremely Important (7)

18. How important was Dr. Jones' specific area of expertise as an expert witness in your decision-making process?

    a. Not at all Important (1)
    b. Very Unimportant (2)
    c. Somewhat Unimportant (3)
    d. Neither Important nor Unimportant (4)
    e. Somewhat Important (5)
    f. Very Important (6)
    g. Extremely Important (7)

19. I have the ability to identify an appropriate expert witness.

    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

20. I have the knowledge to identify an appropriate expert witness.

    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

21. I am motivated to identify an appropriate expert witness.

    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

22. Dr. Jones' curriculum vita (CV) is representative of what an expert witness's CV should look like.

    a. Strongly Disagree (1)
    b. Disagree (2)
    c. Somewhat Disagree (3)
    d. Neither Agree nor Disagree (4)
    e. Somewhat Agree (5)
    f. Agree (6)
    g. Strongly Agree (7)

APPENDIX D

Demographics Questionnaires

Judges' Demographics

1. Please tell us your gender.
- ❍ Male (1)
- ❍ Female (2)

2. Please tell us your age.

3. Please tell us the number of years that you have been a judge overall.

4. Please tell us the number of years that you have been a judge.

5. Please tell us the number of years that you practiced law before becoming a judge.

6. Please tell us whether you have ever received any training in psychology. If you have, please tell us when you were trained and the length of the training.

7. Which of the following categories best reflects your ethnic/racial identity? (check only one)

_____ African American
_____ Asian/Pacific Island
_____ Caucasian: Non-Hispanic
_____ Hispanic
_____ Native American
_____ Other _____

Attorneys' Demographics

1. Please tell us your gender.
- ❍ Male
- ❍ Female

2. Please tell us your age.

3. Please tell us the number of years that you have been an attorney overall.

4. Please tell us the number of years that you have been a criminal trial attorney.

5. Please tell us your area of practice.
- ❍ Defense attorney
- ❍ Prosecutor

6. Please tell us whether you have ever received any training in psychology. If you have, please tell us when you were trained and the length of the training.

7. Which of the following categories best reflects your ethnic/racial identity? (check only one)

_____ African American	_____ Asian/Pacific Island
_____ Caucasian: Non-Hispanic	_____ Hispanic
_____ Native American	_____ Other _____

Students' Demographics

1. Please tell us your gender.
- ❍ Male
- ❍ Female

2. Please tell us your age.
3. Which of the following categories best reflects your ethnic/racial identity? (check only one)

_____ African American _____ Asian/Pacific Island

_____ Caucasian: Non-Hispanic _____ Hispanic

_____ Native American _____ Other _____

4. What is the highest education level you have completed?

_____ High School graduate _____ Junior year in college

_____ Freshman year in college _____ Senior year in college

_____ Sophomore year in college

5. What is your current work status? Check one:

_____ Employed full time _____ Employed part time _____ Unemployed

What is your occupation? _____

VITA

SHARI SCHWARTZ

2007	B.S., Psychology University of Central Florida Orlando, Florida
2010	M.S., Psychology Florida International University Miami, Florida
2010-2012	Doctoral Candidate Florida International University Miami, Florida

PUBLICATIONS AND PRESENTATIONS

Schwartz, S. & Wright, D.B. (in press). Co-witness effects: Memory conformity for new and old items with immediate and delayed testing. *Applied Cognitive Psychology.*

Schwartz, S. & Schreiber Compo, N. (March, 2012). *Judging expert witnesses*. Paper presented at the American Psychology-Law Society Meeting, San Juan, Puerto Rico.

Schwartz, S. & Wright, D.B. (March, 2011). *The impact of varied delay interval and misinformation on memory conformity.* Paper presented at the American Psychology-Law Society International Meeting, Miami, Florida.

Wright, D.B. & Schwartz, S. (2010). Conformity effects in memory for actions. *Memory and Cognition, 38*(8), 1077-1086.

Carlucci, M., Kieckhaefer, J. M., Schwartz, S.L., Villalba, D. K. & Wright, D. B. (2010). The South Beach study: Bystanders' memories are more malleable. *Applied Cognitive Psychology.*

Schwartz, S., Negy, C., Reig-Ferrer, A., & Carlson, R. (April, 2010). *Validity of the S.A.F.E. scale with U.S. Latino/a Immigrants.* Poster presented at the 90th Annual Conference of the Western Psychology Association, Cancun, Mexico.

Carlucci, M. E., Kieckhaefer, J. M., Schwartz, S. L., Villalba, D. K., & Wright, D. B. (March, 2010). *The South Beach study: Bystanders' memories are more malleable.* Paper presented at American Psychology-Law Society, Vancouver, British Columbia, Canada.

Schwartz, S. & Wright, D.B. (March, 2010). *Making people report actions they did not do and fail to report actions they did do.* Paper presented at the American Psychology-Law Society, Vancouver, British Columbia, Canada.

Negy, C., Schwartz, S. & Reig-Ferrer, M. (2009). Violated expectations about life in the United States: Setting the stage for acculturative stress among Hispanic immigrants. *Cultural Diversity and Ethnic Minority Psychology, 15*(3), 255-264.

Negy, C., Schwartz, S., & Reig-Ferrer, A. (July, 2009*). The role of self-efficacy in Latin-American immigrants' acculturative stress.* Paper presented at the XXXII Interamerican Congress of Psychology, Universidad de Valle, Guatemala.

Schwartz, S., Winter, R., Carlucci, M., & Cosano, D. (2009, March). *Stepping-up or stepping-down in jury deliberations: A ladder of lesser included charges in homicide cases.* Paper presented at the 2009 American Psychology-Law Society Annual Meeting, San Antonio, TX.

Wright, S., Schwartz, S., & Ross, S. J. (2009, March). *Influence of description quality and case attributes on the likelihood of suspect nomination or arrest.* Poster presented at the annual meeting of the American Psychology-Law Society, San Antonio, TX.

Schwartz, S. (2008, August). *Self-efficacy as a predictor of acculturative stress.* Poster presented at the 116th annual convention of the American Psychological Association, Boston, MA.

Schwartz, S. (2007, April). *Premigration expectations and postmigration experiences of Hispanic immigrants to the United States.* Poster presented at the Showcase of Undergraduate Research Excellence (SURE), University of Central Florida, Orlando, Florida.