There have been incidences where juries relied on my opinion and in the aftermath, those opinions were not supported by evidence.\(^1\)

Forensic Psychologist Dr. Reid Meloy

With the assistance of his post-conviction attorneys David Wymore and Maria Liu, Timothy Masters was successful in getting all homicide charges against him dropped after he spent over nine years in a Colorado prison for the murder of Peggy Hettrick. While his conviction was based in large part on faulty forensic psychological testimony introduced at trial, his freedom resulted from the prosecution’s review of new DNA evidence pointing to other suspects. The Masters case can be characterized as a series of disasters, beginning with a homicide detective who contacted internationally renowned forensic psychologist Dr. Reid Meloy to help him construct an arrest warrant based on Meloy’s opinion that drawings by Masters reflected his motive to kill Hettrick.

The series of disasters ended with a conviction that was upheld by the Colorado Supreme Court; the opinion ignored the fundamental principles of Daubert. Absent Meloy’s testimony, Masters was convicted without a shred of direct, physical, or circumstantial evidence. This article offers an analysis of the series of events that occurred when a forensic psychologist developed a psychological profile of a killer by interpreting the narratives and drawings made by Masters to conclude that they reflected his fantasy and ultimately his motive to commit sexual murder.

In the past decade, defense attorneys have had the opportunity to observe how forensic sciences have assisted defendants in proving their innocence, especially in the area of DNA analysis and the Innocence Project. Furthermore, false confessions are a reality in the criminal justice system. Dr. Richard Leo has written extensively on the problem of false confessions and has proven through actual cases that the problem is real and should not be ignored, even though there are jurisdictions that do not recognize false confessions as a viable defense argument. What these different disciplines in the forensic or social sciences have in common is reliable and verifiable data to support their opinions to exonerate defendants.

However, one case that appears to defy logic is the Timothy Masters case — a case that sheds light on the problems of introducing unsupported forensic psy-
chological testimony at trial. The Masters case, in which the authors had no involvement, represents a tremendous opportunity for defense counsel to understand the pitfalls of a system that still does not understand how to fairly apply Daubert. Defense attorneys should strive to understand basic behavioral science terminology so that they are equipped to challenge prosecutorial introduction of faulty forensic psychological testimony of witnesses who desire to profess their expertise on subjects that are not supported by research and data. Research shows that judges still do not understand how to apply the underlying Daubert criteria to forensic science issues and, in this case, to forensic psychological testimony. The burden will be on defense counsel to educate judges — the gatekeepers of evidence — to shed light on the prejudicial impact of faulty forensic psychological testimony.

Sexual Homicide Investigation

In 1987, Timothy Masters was a 15-year-old high school sophomore living with his father in Fort Collins, Colo., a university town on the plains east of the Rocky Mountains. On Feb. 11, 1987, not far from his residence, the body of Peggy Hettrick lay in a field where she was murdered, with mutilations to her private areas. According to law enforcement, Timothy Masters was an early suspect because he saw the body on the way to school but failed to report it. While at school, Masters told detectives that he had seen Hettrick's body, but assumed it was a mannequin put in the field by friends trying to trick him. Indeed, even the bicyclist who reported the body told police that he too thought it was a mannequin. Without consulting an attorney, Masters and his dad did exactly what police asked; they allowed detectives to search their home and Masters' school locker. The police scooped up his writings, sketches, and his survival-knife collection.

After reading Masters’ Miranda rights, officers prodded him to talk about killing, to think like a killer, and to talk about what weapons he might use and where he might put a body. Yet, Masters did not confess. By the sixth hour, it was detective James Broderick’s turn, telling him to come clean about how he fulfilled a fantasy by killing Hettrick: “Why can’t you just say it? Why is it so hard for you to tell me? You got to admit it when it’s over. People get killed in battle, right? Their friends die! A piece in you just died just a minute ago. It’s over. You’re not free anymore.” Masters was interrogated for more than 10 hours without a lawyer and according to Broderick, Masters failed a lie detector test, but the official reports of the test results are lost. At age 15, Timothy Masters was not arrested and after high school he joined the Navy.

However, a decade later the detectives found in his bedroom what would become the most prejudicial of the prosecution’s evidence when Masters was put on trial for Hettrick’s murder: hundreds of extremely violent drawings and stories. Many of the pictures showed stabbings with knives and swords, and much of the violence was directed at women. While Masters’ volume of drawings raised questions and suspicions, they did not trigger his arrest because the bedroom and its contents were equally notable for what officers did not find. Officers found no blood and no body parts anywhere in the house. There was no fiber, hair, skin, fingerprints or other physical evidence that linked Masters to Hettrick or any eyewitness. The survival knives were tested at the Colorado Bureau of Investigation and found to have no trace of the victim’s blood or DNA. Police seized additional sets of drawings and writings in 1998 when Masters was arrested. In total, police seized approximately 2,200 pages of material produced by Masters; over 1,000 of these were admitted at trial.

In 1992, detective Linda Wheeler-Holloway thought she had a break when one of Masters’ friends said Masters had told him Hettrick’s nipple was missing. “That’s it. That’s holdback information that only the cops knew.” During the time he was in the Navy, Wheeler-Holloway and Detective Broderick interviewed Masters for two days in what was called a “tag-team” interrogation. Masters had known about the nipple, but a girl in his art class had told him about it. The detectives checked out the story and it turned out to be true. He also indicated his stories and drawings stemmed from his ambition to write horror stories like Stephen King, which was the same answer he gave when he was 15.

The interviews were witnessed by members of Naval Intelligence and the Federal Bureau of Investigation. “You sure you got the right guy?” a naval intelligence officer asked Wheeler-Holloway. “I don’t know,” she replied.

According to court records, Wheeler-Holloway later wrote in a police report: “The FBI agents here believe Tim Masters is innocent and so do I.”

Other detectives, such as Troy Krenning, stated, “My perspective was to get off Masters and let’s take a look at maybe someone else. … We seem to be focused on one.” Krenning recalls that when he kept pressing his colleagues for evidence proving that Masters was a legitimate suspect, his colleagues would challenge his position by stating, “Prove that Masters did not commit the crime.” Yet, Detective Broderick was not satisfied with the belief Masters was innocent. He believed Masters’ artwork and stories fit the axiom that sexual homicide suspects generally fantasize about what they are going to do before they do it. In essence, the “fantasy’s a template for the murder they actually commit.”

Undisclosed Evidence

When the case went to trial in 1999, the prosecution withheld exculpatory evidence from the defense team. This evidence could have been used to show Masters was not the culprit. For example, prosecutors never told defense attorneys that police initially considered eye surgeon Dr. Richard Hammond as, at the very least, a “person of interest” in 1987 because he lived near Masters and the Hettrick body could be seen from his home. In 1995, police confiscated more than 300 homemade videos and over $10,000 worth of pornography when a house sitter found a hidden camera positioned in Hammond’s bathroom — where women’s private areas were videotaped. This does not mean Hammond was the culprit, but that he was purposefully overlooked by the prosecution. Prosecutor Jolene Blair argued, “Who else could it possibly be? Nobody else had a motive, nobody else had the opportunity, nobody else had the weapon.” Blair said it was not merely the fact that Masters had these drawings, but the number the police found. “What we needed to do is demonstrate that this wasn’t just a passing fancy of this kid, this was complete obsession with death, specifically the death of a woman, and try to draw parallels between the drawings and our crime scene.” Blair said the issue was “fantasy that becomes obsessive.”

Defense attorneys argued that Hammond was never really investigated
because he was a social acquaintance of lead prosecutor Terry Gilmore. Prosecutor Gilmore initially denied being a social acquaintance of Dr. Hammond and spending time at his home, but later indicated that he did socialize with Dr. Hammond.16 Prosecutor Gilmore stated, “I had absolutely no reason to believe he [Hammond] was involved in any way with Peggy Hettrick’s murder. … It just never occurred to us.”17 According to Blair, “Dr. Hammond wasn’t even a blip on the screen. … No one thought of him, no one talked of him. … The crimes that he apparently perpetrated are so much different than the Peggy Hettrick homicide.”18 However, Officer Jack Taylor disputed Blair’s comments, indicating it was common knowledge that Hammond was a possible suspect.19

Dr. Meloy did not interview Timothy Masters, and thus he relied on speculation as to what the drawings signified.

Broderick stated there was no reason to investigate Hammond for Hettrick’s murder: “Where’s the violence? Show me that pattern of violence. … We searched [Hammond’s] entire house, and there was nothing to link him to Hettrick’s murder.”20 The special prosecutor reviewing the case indicated that there was no evidence tying Dr. Hammond to the murder because there was no evidence of blood, blood splatter, DNA, fingerprints, hair fibers, or persons to whom Hammond confessed the crime.21 Who destroyed Hammond’s videotapes and why? “I had a lot to do with that,” Broderick said. “It was an ethical decision. Should we revictimize all these women by telling them they are victims? So it really was an effort to protect them, to preserve these victims’ rights.”22 In August 1995, investigators slated for destruction every piece of evidence they seized from Hammond. The seized evidence burned for approximately 8 1/2 hours, according to a report by Officer Sanchez.23 Detective Krenning stated, “I can’t recall one other case where the evidence was taken to a landfill, mashed up with a grater, and then burned.”24

In addition, plastic surgeon Christopher Tsoi revealed that he told police investigator Marsha Reed in early 1998 he believed the genital wounds reflected the proficiency of a surgeon.25 Though police released a report showing Reed set up an appointment with Tsoi, no report detailing their conversation has ever been released.26 Moreover, during the Peggy Hettrick autopsy, medical examiner Dr. Allen remarked, “A doctor could have done this.”27 In 21 years of performing autopsies, Allen told colleagues, he had never seen wounds like these.28 Dr. Warren James, a prominent Fort Collins Ob-Gyn, stated, “I find it highly unlikely that any 15-year-old could perform this precise surgical procedure given the advanced anatomical knowledge required and the skill necessary to excise the skin tissue … as most surgeons cannot perform this procedure.”29

Opinion of Dr. Reid Meloy

Masters was honorably discharged after eight years in the Navy. In 1998, 11 years after Hettrick was slain, Masters moved to California and worked as an aircraft structural mechanic. Yet Detective Broderick was less convinced of Masters’ innocence and sought the opinion of forensic psychologist Dr. Reid Meloy, a member of the American Board of Professional Psychology (ABPP) with a specialization in forensic psychology. To find out if there was a relationship between Masters and the murder, Broderick gave Meloy details of the case along with more than 2,000 of Masters’ drawings, stories, crime scene videotapes, interpretations of the drawings, police interviews, photographs, maps, and transcripts.

Meloy stated, “In my 18 years of doing this kind of work I have never seen such voluminous productions by a suspect in a sexual homicide. That tells us he was preoccupied with sexual violence, with violence, with sexually sadistic images, with images of domination and degradation of women, and he was also fascinated by knives.” Dr. Meloy also stated that after spending six months on the case, “I felt I understood the motivations for this homicide and that I had become convinced that Timothy Masters was the individual that had committed this homicide.”30 Young Timothy, killed Hettrick, and, by doing so, had symbolically killed his own mother. A classic case of ‘displaced sexual matricide’ brought on by feelings of abandonment.”31

In court, the prosecution bombarded the jury with violent pictures Masters had drawn. They were shown on a large video monitor while Meloy pointed out features of them that he testified showed the pairing of sex and violence; evidence of “piqueurism,” the sadistic pleasure derived from stabbing;
degradation of women; and fascination with weapons and death. Meloy would eventually conclude from Masters’ drawings and stories that Masters fit the profile of a killer because he was a loner, came from an isolated or deprived background, harbored hidden hostility toward authorities and women, and had violent fantasies.

Not turned over to the defense, however, were Broderick’s own interpretations of Masters’ artwork that filled dozens of pages dated long before Meloy joined the prosecution’s efforts. On July 24, 1998, Detective Broderick updated prosecutors Gilmore and Blair on the status of Meloy’s work, and in his letter Broderick wrote that he sent Meloy a draft of Masters’ arrest warrant and was waiting for his “approval.” Meloy was so convinced that Timothy was the culprit that he sent a pretrial letter to then-Larimer County District Attorney Stuart Van Meeren in which he expressed hope that the work of “superb professionals” Gilmore and Blair “will result in a successful prosecution.”

Although Meloy was barred from giving his opinion about whether or not he believed Masters’ pictures and stories implicated him in Hettrick’s murder or that his productions reflected his belief that it was a displaced matricide, Meloy drew a very clear correlation between the circumstances of Hettrick’s death and Masters’ artwork as motive for the homicide. He testified about the characteristics of a sexual homicide. He went into detail about how Masters’ productions could be considered a “fantasy rehearsal,” especially a doodle on Masters’ math homework of a knife-wielding hand cutting a diamond shape that Meloy interpreted as a vagina, “which may have been a rehearsal of the genital mutilation.”

According to Dr. Meloy, because some of Masters’ drawings were of stab- bings, dragging, and so on, they were logically relevant to his motive, intent, and plan to commit the crime. The psychologist defined a sexual homicide as one in which there is “primary sexual activity usually involving semen or ejaculation.” However, despite labeling this a sexual homicide, there was no semen found in, on, or near the body. Meloy showed how specific pictures could be interpreted to reflect the crime; several showed “blitz attacks,” depicted stabblings that Meloy interpreted as sexual in nature, and depicted women as murder victims. He opined that Masters’ retreat into a fantasy world combined to create a boiling kettle of latent violence just waiting to erupt: “A retreat into such a compensatory narcissistic fantasy world, replete with sexuality and violence, works for awhile, but at a great cost. The unexpressed rage continues, depression may ensue, and anger toward women as sources of both pain (abandonment) and erotic stimulation builds.”

Equally prejudicial was Meloy’s interpretation of a picture Masters drew the day after he saw Hettrick’s body. It depicted one figure dragging another, which was apparently wounded or dead, from behind. The wounded figure was riddled with arrows and blood seemed to flow from its back. Entirely discounting the presence of the arrows, which had nothing to do with the murder, Meloy wrote in his report that this picture represented the crime as it actually happened. “This is not a drawing of the crime scene as seen by Tim Masters on the morning of Feb. 11 as he went to school. This is an accurate and vivid drawing of the homicide as it is occurring. It is unlikely that Tim Masters could have inferred such criminal behavior by just viewing the corpse, unless he was an experienced forensic investigator. It is much more likely, in my opinion, that he was drawing the crime to rekindle his memory of the sexual homicide he committed the day before.”

Meloy stated, “Sexual homicide represents the solution, particularly in the form it took in this case: If I kill a woman, she cannot abandon me; if I desexualize her (genital mutilation), she cannot stimulate me.” These are not conscious thoughts for Tim Masters, but likely represent the unconscious beliefs that drove his behavior the night of Feb. 11, 1987, when he killed and sexually mutilated Peggy Hettrick, a victim of choice and opportunity. Ms. Hettrick represented all women to Tim Masters.” Meloy indicated that either a conflict with a woman in authority or grief over the death of a loved one triggered his murderous outburst. According to Meloy, “A trigger mechanism or precipitating event is a particular occurrence in the life of the perpetrator which causes him to act out his fantasies in the real world.” Dr. Meloy testified that such an event could be conflict with one’s spouse or girlfriend, grief over the death of a loved one, or conflict with women of authority in a school or employment setting. In this case, Dr.
Meloy stated that Masters’ trigger mechanism, which was the catalyst for him to kill, consisted of the argument he had with a female teacher at school about a month prior to the murder. The argument ensued between the teacher and Masters because she took away a military manual he possessed.

“He admitted his guilt through pictures to us.”

Statement of a juror after convicting Timothy Masters

Analysis of Dr. Meloy’s Opinion

There are multiple problems regarding the way Dr. Meloy was employed in this case. Regardless of the lack of evidence linking Masters to the case and regardless of the opinion of Hazelwood, Meloy continued to push his own psychological profile matching Masters to the murder. This dubious method of profile matching begins with the psychologist identifying the person the psychologist wants to be the suspect. Next, the psychologist adds characteristics to that individual — characteristics of the type of person who would commit such a crime — based on the type of evidence collected. In this case, that evidence included drawings and narratives.

Furthermore, Meloy did not reveal to the court that Hazelwood did not agree with his opinion, even though during Meloy’s testimony he cites Hazelwood’s scholarship as information he would have relied upon to form an opinion. There was no objective analysis in Meloy’s assessment of Masters’ behavior because he violated his own forensic psychological protocol. For example, Meloy’s own scholarship emphasizes a protocol that, in addition to psychological testing, includes competent and thorough completion of the clinical interview and the gathering of independent historical data. These steps are critically important in arriving at a reliable, valid understanding of the individual. Meloy did not interview Masters, thus relying on speculation as to what the drawing and narratives signified. Because Meloy was not employed as a neutral party that would have been loyal to the court, there would have been no reason to subject Masters to an evaluation by Meloy when he already determined that Masters was the culprit.

Interestingly, Meloy indicated during his testimony that the research on sexual homicide was scant. He testified that current scientific journals have reported that the relationship between sexual fantasies and sexual homicides is tentative, and opined that no conclusions can be drawn linking fantasies to conduct. Indeed, the inconclusive nature of this research is apparent when one of the two studies relied upon by the prosecution’s expert is also relied upon for the proposition that “normal people,” that is, people who do not commit criminal behavior, also engage in deviant sexual fantasies. If both groups do engage in sadistic sexual fantasies, there is no one causative factor explaining why some act out their fantasies and others do not. In fact, surveys measuring sadistic fantasy make it clear that it is extremely common and the vast majority of it does not lead to sexual offending. As to rehearsed sadistic fantasy, sadistic situations tend to be rehearsed many times in fantasy and at times tried out in real life over a number of years.

The defense called a prominent forensic psychologist, Dr. John Yuille, who stated that the drawings meant nothing. Because research in sexual homicide is relatively new, Yuille does not believe that a correlation necessarily exists between fantasy and homicide; there is room for differing interpretations of the same evidence. The research is flawed,” Dr. Yuille stated in his testimony regarding the current state of research on the relationship between fantasy and sexual homicide. In addition, he indicated that it is difficult to generalize about the link between fantasy and sexual homicide because the sample size in the research is too small. Furthermore, the research is inadequate on how frequently normal people engage in sexual fantasies and do not act out.

One study found that the frequencies of deviant sexual fantasies in control groups representing “normals” tended to be higher than sex offenders. It is incorrect to assume that fantasy is a rehearsal to act out, but it may serve a number of purposes for the individual such as wish fulfillment, curiosity, or to alleviate sexual frustration. Given that there are no certain behavioral indicators to exclusively confirm characteristics in sadistic sexual fantasy, fantasy does not appear to be associated with a type of crime. In the Masters case, there was an absence of evidence showing early rehearsals to act out the fantasy. Amazingly, in order to justify his belief that Masters did in fact commit sexual murder, Meloy relied on research showing that someone like Masters would be the least likely candidate to commit sexual murder. In reviewing Meloy’s trial testimony, he was well aware that the research was not conclusive in the link between fantasy and the propensity to commit sexual homicide.

In addition to the problematic position that the drawings represented sadistic sexual fantasy, Meloy then took the position that the drawings represented an illustration of displaced sexual matricide in that Masters killed Peggy Hettrick because Peggy represented his deceased mother. The authors located what is believed to be the only study available prior to the trial, Sexual Homicide by Adolescents, with which Meloy would have been familiar regarding an adolescent’s displaced rage onto a female victim — rage caused by the mother’s threats of separation through suicide.

Legal Analysis

Courts attempt to filter out evidence that may be inflammatory or prejudicial in order to assure that a defendant receives a fair trial. Courts generally do not allow a defendant’s “other crimes, wrongs, or acts” to be used against him because of the fear that jurors would focus too much on these other matters and determine the culpability of the accused based on how they perceive his character. However, there is an exception in the law where a person’s “other crimes, wrongs, or acts” can come in as evidence to assist the jury in determining culpability if these other matters go to something other than a person’s character such as the ability to commit the crime, motive, state of mind, planning, identity, or modus operandi.

In the Masters case, the majority on the Colorado Supreme Court upheld the conviction and believed that Meloy’s testimony was useful because it was not being offered to prove his character. The minority opined that the tendency of juries to overvalue other crimes, wrongs, or other acts evidence disclosed at trial is supported by the findings of several empirical studies on jury behavior.
regarding a defendant’s past activities. For example, the minority cited behavioral studies concluding that the dislike jurors may have for the defendant’s past activities may tend to distort their perception of the degree of independent evidence necessary to meet the prosecution’s burden of proving guilt beyond a reasonable doubt.16

The majority’s assurance that the prosecution did not emphasize or rely on the inadmissible evidence, described in part as the “sporadic use of ethnic slurs,” mischaracterizes the nature of the inadmissible evidence and the trial proceedings. However, the prosecution emphasized to the jury numerous images drafted by the defendant that glorified the Ku Klux Klan, the Nazi party, and killing. The images had no connection to the Hettrick homicide but were used, through Meloy, to prove motive.17 The prosecution also highlighted many of these inadmissible, inflammatory examples of racial bigotry as Broderick testified regarding drawings that depicted the Nazi death camp welcoming “Each and Every God-damn Jew” and the caption “Kill the Jew.”18

The logical relevance of the defendant’s uncharged fantasies is minimal when compared to the overwhelming power of these fantasies to depict the defendant as an evil and bad person.19 According to the minority, the writings and drawings are not even “acts” as contemplated by the law, but merely reflect, for the most part, a 15-year-old’s fantasies; not one of these 1000 drawings and narratives concerned this victim personally or reflected the manner in which the victim was killed.20 However, the prosecution was allowed to end its closing argument by urging the jury to convict the defendant because his fantasies proved that he committed this crime: “Please take the time to look at those drawings, read the narratives, study this evidence. The evidence is there. Sometimes it’s hard to find. Sometimes you have to do a little thinking as to how the defendant could draw something like that unless he knew how it happened. Please look and read, study, dig into the paper bags. The evidence is there.”21

In addition, courts have an obligation to ascertain whether expert testimony that is disclosed to a jury actually is in fact generally accepted within the scientific community as reliable to support expert opinion under Daubert.22 The majority indicated that the prosecution presented multiple theories of logical relevance to the Masters’ case and decided that the scientific principles underlying Meloy’s testimony were reasonably reliable and that they would aid the jury. According to the majority, Meloy’s testimony provided an explanation for the seemingly inexplicable, and without his testimony jurors could not understand the defendant’s motivation for murder.23 The Court stated:

Dr. Meloy relied on an objective, widely recognized psychological theory, one which was founded on research and study, and one which the trial court determined was generally recognized within the forensic community. His testimony consisted of an objective, complex, and highly developed analysis of the crime scene and defendant’s productions that had been refined by years of research. As such, it was reliable and insightful information that assisted the jury by placing the crime in context and helping them to understand bizarre and deviant behavior that was unlikely to be within the knowledge of ordinary citizens; it helped the jury understand the significance of material facts in the case.24

Moreover research appears to suggest that jurors, perhaps subconsciously, assume that all expert evidence admitted at trial has been “approved” by a judge, thus concluding too much about the quality of the evidence presented.25 Specifically, jurors assume trial judges review expert evidence before it is presented to them and that any evidence presented to them must be above some threshold of quality.26 If trial judges adhere to Daubert standards, the jurors’ assumptions may make sense, but the research indicates that trial judges do a poor job of screening expert evidence, which is unfortunate because the trial judge is implicitly lending credence to the testimony and thus increasing its persuasiveness.27

The defense attorney must, at a minimum, cross-examine the expert on error rates, comparison to similar groups, validity, and reliability of the research.

The court’s entire statement is incorrect. It is clear that the judicial ruling allowing Meloy to testify reflects the findings of the study titled Asking the Gatekeepers: A National Survey of Judges and Judging Expert Evidence in a Post-Daubert World. The study concluded that judges, especially state court judges, do not know how to apply Daubert guidelines, do not understand scientific evidence, statistical significance, distinctions between reliability and validity in the behavioral sciences, and are in need of judicial education on issues that are raised by expert testimony such as error rates, validity, and reliability.28

The introduction of Daubert standards altered the landscape — admissible expert testimony must be based on more than “subjective belief or unsupported speculation.”29 The Daubert criteria encompassed concerns within the psychological and scientific communities that expert testimony was at times admitted absent acceptable theories and methods to support the opinions expressed, and conversely that relevant expert testimony based on reliable, competent research was at times excluded. Judge Richard Posner char-
mony are (1) whether the method consists of a testable hypothesis, (2) whether the method has been exposed to peer review, (3) whether the method is generally accepted within a given community, (4) whether the method is valid and reliable, (5) whether there are any known error rates, and (6) whether the theory was developed “for litigation only.” In some respects, the burden will fall on defense counsel during cross-examination of the prosecution’s expert witness to educate judges on these factors. However, what is lacking for many defense attorneys is an understanding of basic behavioral science terminology to help them expose weaknesses in the expert’s testimony.

When experts testify, the defense attorney must, at a minimum, cross-examine the expert on error rates, comparison to similar groups, validity, and reliability of the research. Inquiries into these areas will ensure that the conclusions drawn by the expert are properly challenged and weaknesses are exposed to the judge. What follows is a brief outline of some of the basic behavioral science protocol and its application to the Masters case as an illustration of areas on which defense counsel should cross-examine the expert to prove that Daubert requirements of admissibility have not been met.

A. Comparisons of the Masters Drawings to Other Adolescent Male Drawings

When behavioral scientists want to test a theory about their impressions of given data, they compare the data of their case with a known group, if it exists, that is similar in factual characteristics. This simple statistical protocol that is widely accepted by researchers was rejected by Dr. Meloy and ignored by the courts. Defense counsel should cross-examine on how the expert bypassed the protocol of examining comparative groups. It was Meloy’s belief that the violent drawings by Masters represented something other than doodles by an adolescent; they represented Masters’ desire to commit sexual homicide, specifically a sexual homicide Meloy referred to as displaced sexual matricide.

Meloys should have researched other data to compare whether violent drawings in Masters’ age group or students in his special education class produced similar violent drawings resulting in sexual homicide. Meloy had access to Masters’ school records. Consequently, he knew that Masters was placed in a special education class, what members of his peer group were likely to draw, what his fellow students were exposed to by the media, and that at least some of the peers thought the drawings were interesting. All of the information could have been used as a method to initially form the basic hypothesis as to how Masters’ drawings were the same as other adolescents or those in his special education classes.

In this case, however, Meloy did not show how drawings by Masters were similar to the adolescent sample to which he was being compared. Moreover, Meloy should have considered that these same groups used for comparison did not commit sexual homicide even though they produced violent drawings. If there was no difference between what Masters drew and what the comparative groups produced, then people are more apt to conclude that the drawings did not represent what Meloy believed they represented.

Cross-examining an expert such as Meloy on the failure to develop alternative explanations to his own theory would have been fertile ground for casting doubt on his credibility. Meloy made the assumption that his interpretation of the drawings and the relationship of the drawings to the homicide were sufficient to bypass protocol. Had Meloy conducted the requisite comparative research and concluded that a difference existed by disclosing reliable research showing that a link between violent drawings and sexual homicide committed by adolescents existed, then a genuine debate could be resolved in a court of law as to the extent of the difference between the comparison. He did not come forward with any cases showing that other adolescents who produced drawings similar to Masters’ drawings also committed displaced sexual matricide.

Furthermore, the forensic psychologist maintains professional integrity by examining the issue at hand from all reasonable perspectives and actively seeking information that will differentially test plausible rival explanations. For example, there was no evidence that Meloy tested a plausible rival explanation that the drawings did not reflect what the forensic psychologist projected into the drawings or that perhaps the violent stories did not mean Masters had a motive to kill. In fact, Masters said, “My peers seemed to approve of them. … They liked those drawings. … They would offer suggestions, so that encouraged me to draw even more. … We would draw horrible gruesome scenes and share it with a guy. … ‘Oh, that’s cool,’ and pass it back.”

Dr. Meloy took Timothy’s drawings and cross-referenced the traits used in sexual homicide classification such as blitz attack and mutilating, but to no other type of classification that would have formed a hypothesis different from his own. For example, Meloy would have known of Masters’ desire to write like Stephen King because he revealed this to the detectives. It is highly plausible Meloy did not develop alternative explanations for Timothy’s drawings because he knew that many of the major drawings would have more in common with non-sexual homicide themes such as the military, horror movies, and Stephen King. Moreover, developing alternative explanations would have robbed Meloy of the opportunity to push psychoanalytic theories as valid and reliable. In fact, the American Psychological Association (APA) discourages using drawings for forensic cases out of the concern that there are erroneous assumptions made about the interpretation of the drawings.

There are publications by Stephen King that Masters may have read that could have been the basis for an alternative explanation for Meloy to consider. Parallels can be found if the themes in King’s novels are cross-referenced against the themes in Masters’ drawings and stories. For example, the correlations between Masters’ drawings depicting murder, Nazi death camps, sadistic killers, Jews, and an adolescent male student are found in Summer of Corruption: Apt Pupil (1982). With respect to the psychological dynamics of a 12-year-old son of a dying mother who must fight evil, the authors direct readers to The Talisman (1984). Moreover, with respect to a son who kills his mother, the reader is referred to the short story The Woman in the Room published in Night Shift (1978).

Cross-referencing the themes of the Stephen King novels with the drawings as an alternative explanation for Meloy’s theories is important because there was no evidence of exploration as to the timing and manner of production of the narratives/drawings and what Masters’ thoughts and feelings were prior to, during, and following the productions. He was never asked if he hoped to use the drawings to shock others, punish them, or as a way to ask for help; it was assumed by Meloy and the court system that his pictures proved that he was a bigot and racist full of hatred toward everyone.
The only comparison Meloy performed was an attempt to link the pictures to the crime scene and sexual homicide traits. He claimed a 100 percent match, meaning that each of the hundreds of pictures Masters drew matched displaced sexual matricide as applied to Hettrick’s murder and nothing else. Thus, if the gruesome drawings by Masters were no different, for example, when compared to other 15-year-old adolescents who drew similar pictures, then Meloy could never have justified his opinion. He had to side step the protocol because he knew that this was his opportunity to push his psychoanalytic theories as valid for legal determinations.

Even if judges, either through ignorance or convenience, allow unreliable testimony to be heard by jurors, defense counsel must elicit from the forensic psychologist the scenario that would have to be present for the expert to reject his or her own opinion. Meloy’s hypothesis was that the drawings demonstrated Masters’ fantasy to commit sexual murder, rehearsal for murder, and a re-enacting of the murder that supposedly fit the facts of the Hettrick case. All of this was tied to a theory of displaced sexual matricide. Thus, Meloy’s initial impressions that Masters was guilty of murder were verified by his analysis of the drawings. If the forensic psychologist on cross-examination cannot perceive of an alternative explanation in contrast to his own theory, as Meloy did not, this indicates a major problem in that the expert does not even have the basic validity and reliability framework to justify his testimony or involvement in the case for that matter. At this point — via a motion to exclude expert testimony — defense counsel must object to the prejudicial nature of allowing such an expert to publicize to a jury an unsupported opinion.

B. Validity and Reliability

If there is similarity between the data on which the expert has formed a theory and the comparison group, then there can be a discussion of validity and reliability of the comparisons. If there is a distinction between the groups, then again validity and reliability of the comparisons are issues to consider, with the goal being that the attorneys and the courts have the facts to argue their cases of admissibility.

Keep in mind that a match does not have to be and is rarely black and white. There are gradations of what a match of similarity between the comparison groups of acceptability consists of, and it is in this realm that attorneys can have serious debate as to whether a match of similarity exists or not. Yet Meloy side stepped this very important and universally accepted statistical protocol by jumping to an unsupported conclusion that Masters’ drawings represented something other than what the comparative groups would draw, thus the validity and reliability of the expert’s opinion was never addressed. Moreover, defense counsel should cross-examine regarding issues of validity and reliability of the expert’s testimony on research, if any, relied upon to form an opinion. The reason that a literature review on the research is important to forensic psychologists is because they can compare a present court case against similar cases cited in the research for similarities or dissimilarities in given group characteristics.

Very simply, validity is the extent to which a test measures what it is supposed to measure on a consistent basis. The question of validity is raised in the context of the form of the test, the purpose of the test, and the population for whom it is intended. Therefore, the general question, “Is this a valid test?” is not the proper query. “How valid is this test for the decision that I need to make?” or “How valid is the interpretation I propose for the test?” are the questions to ask. Thus, if a scale is used to measure weight accurately, will the scale correctly measure what it is purported to measure, i.e., weight? Without validity, opinions that offer no measurements to indicate what they tested to arrive at an opinion are potentially hazardous and do not increase confidence in an expert’s opinion. The ability to interpret the great bulk of behavioral research hinges on the validity of the measurements used to analyze data. Validity is what allows experts to sift through the research to determine whether their opinions are meaningful to resolving a legitimate court issue or potentially harmful to an individual. In this case, Meloy never offered any proof that he used a valid method that would measure the link between violent drawings and displaced sexual matricide.

Research requires dependable, valid measurement. Reliability is the degree to which a method consistently measures whatever it was set out to measure. Can one replicate the experiment and get comparable results? Remember that a reliable measure does not mean that it is valid. For example, a broken ruler may give consistent results in terms of measurement, but the measurements are still wrong, thus unreliable. This is why it is crucial that the method used to measure something is valid. Without validity there is no reliability. In this case, Meloy’s opinion is not reliable because the linkage of Masters’ drawings to the crime scene or to displaced sexual matricide is non-existent. In fact, when Meloy learned that Masters was innocent, he did not hesitate to completely reverse his opinion on Masters’ culpability because he never took the issue of validity and reliability into account in the first place to support his conclusion of what the pictures meant relative to his theory.

C. Error Rates

Counsel should also cross-examine an expert as to error rates that are considered extremely important in assessing the quality of an expert’s opinion as it relates to issues of reliability. Measurements are reliable to the extent that they can be repeated. Any random influence that tends to make measurements different from occasion to occasion or circumstance to circumstance is a source of measurement error, also referred to as the error rate. Errors rates, or false positives, refer to the number of times one is wrong when one says something happened when it did not. Conversely, false negatives occur when something happened and one said it did not. In the Timothy Masters case, there were no other cases about which Dr. Meloy testified nor any available research to rely on in order to disclose the error rates in displaced sexual matricide cases. In this case, the court would have to accept that Meloy was 100 percent correct in his analysis because his validity and reliability were acceptable under Daubert. There was no validity or reliability, however, and he could not say what the error rate was because he did not compare Masters’ drawing to drawings of adolescents who exhibited displaced sexual matricide. Put another way, Meloy could not disclose, even if asked, what percentage of those adolescents who drew Masters-like pictures did not commit displaced sexual matricide. This is the risk taken when the importance of error rates as they relate to an expert’s opinion is ignored, and the focus is simply on relevance and whether it will assist the jury in resolving issues by giving the jury the option to determine what weight it wants to give such testimony even though it can have a devastating impact on the fairness of a trial. This is why “judges as gatekeepers”
must understand the significance of the statistical aspect of expert testimony, its reliability, or lack of reliability, and the potential prejudicial and inflammatory impact it can have on a jury’s perception of the evidence.

There was no data to answer the question regarding error rates, thus Meloy was left with only his personal, non-behavioral, psychoanalytic interpretation of the drawings and his absolute conviction that Masters was guilty. It has been argued by some researchers that one of the most straightforward ways of tempering implied or explicit exaggeration by experts is to require experts to accurately inform the jury about error rates.97 How often do experts in the field reach the correct or incorrect conclusions in the task relevant to an issue before the court?98 If there is a lack of data on the precise question at issue, this deficiency is extremely informative and should be considered by the court in determining admissibility.99

Meloy indicated, for example, that in his “18 years of doing this kind of work I have never seen such voluminous productions by a suspect in a sexual homicide.” When such a statement is made, pertinent questions from defense counsel might include the following: When did the expert speak to other individuals that have seen such voluminous drawings among adolescent males? How often has the expert observed such voluminous productions that were not sexual homicide? How often has the expert observed voluminous material reflecting a fascination with sexual violence and weapons where no sexual homicide was committed? If the expert cannot answer these basic behavioral science questions that reflect typical comparative protocol that must be conducted before an opinion is elicited, the expert’s opinion is flawed.100

One may have difficulty in understanding how the Masters’ trial judge and the Colorado Supreme Court allowed the forensic psychologist to testify given what is known about the lack of relationship between fantasy and motive to commit sexual homicide and the lack of research connecting violent drawings to sexual homicide. Judges who may not understand the protocol have the convenient excuse of admitting incredibly prejudicial evidence by claiming that it is “specialized knowledge” that would assist the trier of fact.101 Perhaps the court used this provision as an escape hatch to justify Meloy’s testimony when it stated in its opinion, “Without the testimony of a specialist in this area, lay jurors would be tremendously disadvantaged in attempting to understand the defendant’s motives for killing Ms. Hettrick.”102

Judges, under most circumstances, will admit most forensic science.103 There is almost no expert testimony that is considered so threadbare that it will not be admitted if it comes to a criminal proceeding under the forensic science banner, except perhaps for handwriting and voice print identification.104 Perhaps experts who are a field unto themselves, but lack solid foundational research proving the reliability and validity of their methodologies to support their opinions, have had their testimony admitted in Daubert jurisdictions.105 This has resulted in the creation of the Meloy phenomena.

Too often courts view debates about psycho-legal issues as justification for admitting evidence. As Justice Black stated in commenting on how integrity in the legal system can be preserved through Daubert: “Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”106 While debates on the merits of the admissibility of psychoanalytic theory, for example, may be helpful if they lead to further refinement of the reliability of the methods used to support expert opinions, the existence of professional debates should not constitute a formal legal test of admissibility.107

Justice Black’s position on this issue is wrong. There can be quite a difference between the weight legal and psychological professionals attach to expert testimony weakened by cross-examination and how juries perceive expert testimony on cases that may involve gruesome evidence. This difference should not be taken lightly by courts. There are limitations to the belief that defense counsel can reduce the impact of an expert’s testimony heard by a jury through cross-examination. During cross-examination, defense counsel was able to get Meloy to admit that the connection between fantasy and the motive to commit sexual homicide was weak. That admission, however, did not necessarily translate into a benefit for Masters regarding the manner in which the jury perceived the expert’s testimony connecting the violent pictures and Masters’ motive to turn his fantasy into reality.

D. Ethical Considerations

Practitioners should consider the ethical implications of forensic psychological testimony as material for cross-examination given that forensic psychologists have American Psychological Association (APA) ethical guidelines to consider when offering expert opinion. The appearance of ethical guideline violations might persuade a judge to more carefully scrutinize forensic testimony, especially when the judge may not understand concepts of validity and reliability and the other Daubert factors.

The APA and other professional organizations established ethical guidelines in 1991 for forensic psychologists. While the guidelines, published in Law and Human Behavior, do not represent an official statement of the APA, they were endorsed by the American Academy of Forensic Psychology. When testifying, forensic psychologists have an obligation to all parties to a legal proceeding to present their findings, conclusions, evidence, or other professional products in a fair manner.108 Forensic psychologists do not, by either commission or omission, participate in a misrepresentation of their evidence, nor do they participate in partisan attempts to avoid, deny, or subvert the presentation of evidence contrary to their own position.109

For example, Meloy mentioned Hazelwood’s research during the trial, but he never disclosed Hazelwood’s opinion that attempting to stretch Masters’ drawings into behavioral rehearsal and motive was overreaching. The courtroom testimony clearly illustrates what can happen when opinions that do not support the position taken by the forensic psychologist are either avoided or subverted. The forensic psychologist’s responsibility to make sure that all legal parties understand the validity and reliability issues ensures that the check and balances built into the legal system can function.

Moreover, forensic psychologists must avoid giving written or oral evidence about the psychological characteristics of particular individuals when they have not had the opportunity to conduct an examination of the individual as it pertains to conclusions to be drawn by the forensic psychologist.110 Forensic psychologists must make every reasonable effort to conduct such examinations and when not feasible, they must make clear the impact of such limitations on the reliability and validity of their professional testimony.111 When he testified, Meloy had the opportunity to uphold this guideline by disclosing that there
were reliability issues as to his testimony because he did not examine Masters.

E. General Acceptance Within the Forensic Psychological Community

At present, methods for interpreting human figure drawings such as those drawn by Masters meet neither professional nor current legal standards for admissibility because of the lack of standardized measurement methods. Thus, there is no validity, no reliability, and no way to determine error rates. The American Board of Forensic Psychology, for whom Dr. Meloy served as president, strongly agrees with the assessment that attempts to interpret what individuals indicate about why they draw certain types of pictures should not be used, for example, in assessing an individual’s risk for violence or mental state at the time of the alleged offense.105

The Aftermath

Upon the release of Timothy Masters from prison, Meloy stated that Detective Broderick and the prosecutors “intentionally manipulated his professional opinion by misrepresenting the physical evidence and providing him only a portion of the evidence necessary to make a judgment with respect to Mr. Masters’ psychological state.”107 However, it was Meloy, independent of what the police disclosed to him, who presented his credentialed testimony as “science” and defended the scientific nature of his testimony as reliable before the jury that used his testimony to find Masters guilty.

Meloy indicated that had he known of Dr. Hammond, then he would not have considered Masters to be the killer.108 Meloy reversed his prior opinion that Masters was the killer when he indicated that relative to Hammond’s likely perpetration, the “probability that Mr. Masters committed the Hettrick homicide was incredibly small.”109 Like shifting winds, it was not until it was discovered that Masters was telling the truth that Meloy implicated Hammond as the more likely suspect even though Hammond was irrelevant in terms of Meloy’s analysis of the Masters’ drawings. And yet again, Meloy has no known direct, physical, or circumstantial evidence that points to Hammond as a more likely suspect.

Conclusion

Forensic analysis has its benefits, as shown by the exclusion of Timothy Masters as a source of DNA on the victim’s clothing, which led to his freedom. However, there is a precarious side to forensics that cannot be discounted, especially when there are lay persons serving as jurors who can be swayed by high-profile expert testimony that is not filtered by judges to adhere to Daubert standards. It is important that defense counsel expose weakness in testimony offered by experts so that judges consider the validity and reliability of their testimony before allowing prejudicial testimony to be heard by juries.

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Notes

5. Supra note 1.
6. Supra note 2.

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vention of a grand jury was designed to secure. For a defendant could then be convicted on the basis of facts not found by, and perhaps not even presented to, the grand jury which indicted him.” Russell v. United States, 369 U.S. at 770. See also note 1, supra. The Supreme Court in Resendiz-Ponce described the Court’s ruling in Russell as requiring more specificity in the indictment than “parroting” the statutory language would provide because this was necessary in order to “assure that any conviction would arise out of the theory of guilt presented to the grand jury.” Resendiz-Ponce, 549 U.S. at 109, 127 S. Ct. at 789 (emphasis supplied).

20. Resendiz-Ponce, see note 19, supra.

21. However, the concern with IQBAL pleading requirements is based in large part on the aspect of IQBAL that would be inapplicable to indictments returned by grand juries — the “plausibility” requirement of IQBAL. In the view of the Chair of the ABA Litigation Section, the plausibility requirement of the IQBAL majority opinion “drastically changed the landscape for 12(b)(6) motions.” Rothman, Twombly and IQBAL: A License to Dismiss, 35 Litigation 2 (2009). This requirement gave the district judge a “gatekeeper-like duty” to control plaintiffs’ access to the federal district courts. Id., 1-2. The IQBAL majority held 5-4, over the vigorous dissent of Justice Souter (who had authored the Twombly decision), that the factual allegations pleaded in a complaint must also satisfy the trial judge that they were “plausible, based upon the judge’s common sense and experience.” Justice Souter’s dissent (joined by Justices Stevens, Ginsburg and Breyer) opined that a civil complaint whose factual allegations were sufficient on their face could be ruled “implausible” only where the factual allegations “are sufficiently fantastic to defy reality as we know it: claims about little green men, or the plaintiffs recent trip to Pluto, or experiences in time travel.” 129 S. Ct. at 1959. The Supreme Court majority held that, applying its standard of plausibility, Mr. IQBAL’s allegations as to the “wrongful intent” of Ashcroft and Mueller were not “plausible.”Id. at 129 S. Ct. 1950-52.


24. Previously, before Twombly and IQBAL, under the “notice pleading” standard that sufficed to survive a motion to dismiss under Rule 8(a)(2) as construed in the landmark case of Conley v. Gibson, supra, plaintiffs could usually discover the facts ultimately required to prove their case at trial without being foreclosed from discovery by a Rule 12(b)(6) motion.


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