IN THE SUPERIOR COURT OF THE STATE OF DELAWARE

IN AND FOR NEW CASTLE COUNTY

STATE OF DELAWARE   )
)

      v.   )   ID No. 11050100172
)

MEDFORD HOLMES,   )
)

      Defendant.   )

Submitted: September 11, 2102
Decided: September 19, 2012

On the State of Delaware's Motion to Exclude Expert Testimony
DENIED IN PART
GRANTED IN PART

OPINION

Mark H. Conner, Esquire, Danielle J. Brennan, Esquire, Department of Justice, Wilmington, Delaware, Attorneys for the State

Jan A.T. van Amerongen, Jr., Esquire, Brian J. Chapman, Esquire, Wilmington, Delaware, Attorneys for Defendant

JOHNSTON, J

On April 27, 2011, at approximately 3:31 p.m., Antonio Smith and Abdullah Talib-Din were conversing outside's Smith's house, located at 2806 North Jefferson Street in Wilmington, Delaware. A man, later identified as Defendant Medford Holmes, approached the men and opened fire. Smith, a wheelchair bound paraplegic, was fatally shot once in the chest. Talib-Din was shot eight times in his abdomen and legs. Talib-Din survived his wounds.

Following the shooting, detectives from the Wilmington Police Department interviewed several witnesses. Witness 1 positively identified Holmes as the shooter after being presented with a six-person photographic array. The surviving victim, Talib-Din, also positively identified Holmes as the shooter after being presented with the same six-person photographic array.

Holmes subsequently was arrested and indicted on charges of Murder First Degree, Attempted Murder First Degree, two counts of Possession of a Firearm During the Commission of a Felony, and Possession of a Firearm by a Person Prohibited. The State is seeking the death penalty.

At trial, the State intends to introduce the out-of-court identification of Witness 1 and Talib-Din. In an effort to counter the witnesses' out-of-court identifications, the defense retained Dr. Jennifer Dysart, an expert in the

field of eyewitness identification. The State has moved to exclude Dr. Dysart's report and all testimony, arguing that the defense failed to timely designate Dr. Dysart as an expert witness.

On August 22, 2012, at the pretrial conference, the Court declined to exclude Dr. Dysart's report and testimony on the basis of untimeliness. Recognizing the magnitude of this death penalty case, and the potential significance of the proffered expert testimony, the Court scheduled a *Daubert* hearing.

On September 7, 2012, in the midst of jury selection, the Court conducted a *Daubert* hearing. For the following reasons, the State's Motion to Exclude Defense Expert Testimony is denied in part and granted in part.

Eyewitness Identification

"Eyewitness identification is the most damning of all evidence that can be used against a defendant."[1] As stated by Justice Brennan:

> [E]yewitness testimony is likely to be believed by jurors, especially when it is offered with a high level of confidence, even though the accuracy of an eyewitness and the confidence of that witness may not be related to one another at all. All the evidence points rather strikingly to the conclusion that there is almost nothing more convincing than a live human being who

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[1] Elizabeth Lofus & Katherine Ketcham, *Witness for the Defense: The Accused, the Eyewitness, and the Expert Who Puts Memory on Trial* 13 (1991).

takes the stand, points a finger at the defendant, and says "That's the one!"[2]

In fact, jurors have been known to credit eyewitness testimony pointing to guilt even when such testimony is far outweighed by evidence of innocence.[3] Implicit in jurors' acceptance of such testimony is the belief that the human mind is a precise recorder of events, which can be replayed with near perfect accuracy. [4]

But human perception and memory are malleable.[5] "[E]very time we recall an event, we must reconstruct the memory, and with each recollection the memory may be changed."[6]   In reconstructing the memory, the eyewitness unconsciously fills in the gaps in the factual memory of the crime based on the eyewitness's expectations and attitude, knowledge of similar events, or other people's recollections or suggestions.[7] "We perceive

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[2] *Watkins v. Sowders*, 449 U.S. 341, 352 (1981) (Brennan, J., dissenting) (citation omitted).

[3] *Id.* at 353 n.5.

[4] Loftus, *supra* note 1, at 16; George Vallas, *A Survey of Federal and State Standards for the Admission of Expert Testimony on the Reliability of Eyewitnesses*, 39 Am. J. Crim. L. 97, 98 (2011).

[5] *State v. Henderson*, 27 A.3d 872, 895 (N.J. 2011).

[6] Loftus, *supra* note 1, at 20.

[7] *Id.* at 22; Richard A. Wise et al., *How to Analyze the Accuracy of Eyewitness Testimony in a Criminal Case*, 42 Conn. L. Rev. 435, 455 (2009).

the blending of fact and fiction that constitutes a memory as completely and utterly truthful."[8]

Not surprisingly, research shows that eyewitness identification has the potential to be inherently unreliable and arguably the leading cause of false convictions in the country.[9] According to the Innocence Project, a national litigation and public policy organization dedicated to exonerating wrongfully convicted people through DNA testing, eyewitness testimony played a role in nearly 75% of the convictions that have been overturned through DNA evidence.[10] In 50% of these cases, eyewitness testimony was the central evidence used against the defendant.[11]

Because "jurors seldom enter a courtroom with the knowledge that eyewitness identifications are unreliable,"[12] a growing number of jurisdictions, including Delaware, have recognized the potential value of

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[8] Loftus, *supra* note 1, at 20-21.

[9] George Vallas, *A Survey of Federal and State Standards for the Admission of Expert Testimony on the Reliability of Eyewitnesses*, 39 Am. J. Crim. L. 97, 98 (2011); *see also U.S. v. Brownlee,* 454 F.3d 131, 142 (3d Cir. 2006) ("[M]istaken eyewitness identifications are responsible for more wrongful convictions than all other causes combined.") (citations omitted).

[10] The Innocence Project, http://www.innocenceproject.org/understand/Eyewitness-Misidentification.php (as of Sept. 6, 2012).

[11] *Id.*

[12] *Brownlee*, 454 F.3d at 142.

admitting expert testimony in certain circumstances.[13] Relying on Federal

Rule of Evidence 702 (or the state equivalent), these jurisdictions have

acknowledged that expert testimony may assist jurors in understanding that

an array of factors – including estimator variables[14] and system variables[15] –

can affect memory and lead to misidentifications.[16] The trial court,

however, retains discretion to limit the scope of the expert's testimony.[17]

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[13] *See id.* at 141-44; *U.S. v. Moore*, 786 F.2d 1308, 1312-13 (5th Cir. 1986); *Skamarocius v. State*, 731 P.2d 63, 66-67 (Alaska Ct. App. 1987); *State v. Chapple*, 660 P.2d 1208, 1220 (Ariz. 1983); *People v. LeGrand*, 867 N.E.2d 374, 379 (N.Y. 2007); *State v. Buell*, 489 N.E.2d 795, 803 (Ohio 1986); *State v. Whaley*, 406 S.E.2d 369, 372 (S.C. 1991); *State v. Copeland*, 226 S.W.3d 287, 300 (Tenn. 2007); *State v. Clopten*, 223 P.3d 1103, 1112-17 (Utah 2009). *But see State v. Gaines*, 926 P.2d 641, 649 (Kan. 1996) (holding that expert testimony regarding eyewitness identification should not be admitted into trial); *State v. Day*, 898 A.2d 698, 707 (R.I. 2006) ("[I]t is now well settled in this jurisdiction that the trustworthiness of eyewitness observations is 'not beyond the ken of the jurors.'"); *Commonwealth v. Robinson*, 5 A.3d 339, 342-44 (Pa. Super. Ct. 2010) (adhering to the Pennsylvania Supreme Court's determination that expert testimony in the field of eyewitness identification infringes upon the role of the jury).

[14] Estimator variables are those factors beyond the control of the criminal justice system, which include racial bias, violence, stress, the presence of a weapon at the time of the crime, and the length of time the witness viewed the perpetrator. *Henderson*, 27 A.3d at 904-10.

[15] System variables are those factors within the control of the criminal justice system, including pre-identification instructions, lineup construction, and simultaneous lineups. *Id.* at 895-903.

[16] *Id.* at 928.

[17] *See, e.g., State v. Outing,* 3 A.2d 1, 50 (Conn. 2010) (noting that expert may not opine on the credibility of a particular eyewitness); *Henderson*, 27 A.3d at 925 (same); *Bomas v. State*, 987 A.2d 98, 112 (Md. 2010) ("[T]he effects of stress or time are generally known to exacerbate memory loss and, barring a specific set of facts, do not require expert testimony for the layperson to understand them in the context of eyewitness testimony.")

Admissibility of Expert Testimony Regarding Eyewitness Identification

The Delaware Supreme Court has upheld the admission of expert testimony in the field of eyewitness identification.[18] In *Garden v. State*,[19] after conducting an extensive *Daubert*-type hearing, the trial judge permitted defense expert, Dr. Solomon Fulero, to testify concerning certain factors that may affect eyewitness identification, including stress levels, weapon focus, and memory reconstruction.[20] Dr. Fulero, however, was not permitted to offer his opinion on the confidence/accuracy component of eyewitness testimony as the trial court found that such opinion "would amount to a comment on the veracity of the witnesses who testified and thus would invade the province of the jury."[21]

On appeal, the Delaware Supreme Court found the trial court's exclusion of the confidence/accuracy testimony to be harmless error.[22]

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[18] *See Garden v. State,* 815 A.2d 327 (Del. 2003). *But see Walls v. State,* 1990 WL 17759 (Del.) (finding no abuse of discretion in trial court's denial of defendant's request for an expert as defendant was positively identified at trial and defendant was able to adequately address matters of human perception and memory through cross-examination).

[19] 815 A.2d 327 (Del. 2003).

[20] *Id.* at 338.

[21] *Id.*

[22] *Id.*

Dr. Fulero presented the jury with expert testimony on the importance of stress, weapon-focus, and cross-racial identification. The jury was therefore alerted to the fact that several factors may have affected the witnesses' perceptions and memory. More importantly, the issue of identification was not a close one .... Finally, reasonable jurors may indeed recognize, even without the aid of an expert, that the certainty expressed by a witness does not guarantee that witness' accuracy.[23]

The Court concluded that the jury verdict would have been the same had the confidence/accuracy testimony been admitted.[24]

Proffered Expert Testimony

In the case *sub judice,* the defense retained Dr. Jennifer Dysart, an expert in the field of eyewitness identification. Dr. Dysart is a psychologist who has authored more than a dozen eyewitness publications, taught about eyewitness identification research at colleges and universities, and given more than 100 presentations on eyewitness research before professional psychological organizations and at conferences. Dr. Dysart has been admitted as an eyewitness expert approximately 25 times in various jurisdictions. Dr. Dysart stated in her report that her opinions are based upon a review of the materials submitted by the State.

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[23] *Id.*

[24] *Id.*

Dr. Dysart identified several factors that potentially affected the accuracy of Witness 1's identification. As to each factor, Dr. Dysart's summary opinions are as follows:

1. **Effects of brief exposure on eyewitness accuracy**: Research shows that the amount of time that a witness views a perpetrator is positively associated with the witness's subsequent identification. Exposure duration decreases the accuracy of an eyewitness's identification if the eyewitness views the perpetrator's face for less than one minute.

2. **The effects of distance on perception**: There is a decrease in an eyewitness's identification accuracy as the distance between the eyewitness and the perpetrator increases. Research demonstrates that impairments and difficulty in accuracy are apparent when the perpetrator is 30 yards away from the eyewitness.

3. **Weapon focus effect:** The presence of a weapon may impair memory of the characteristics of the person wielding the weapon and reduce eyewitness accuracy, especially when the opportunity to view the perpetrator is short or limited.

4. **The effects of stress/fear on memory**: Research shows that heightened stress negatively impacts the accuracy of an eyewitness's subsequent identification

5. **Use of simultaneous lineup rather than a double-blind sequential lineup**: A large body of scientific research demonstrates that sequential lineups are superior to simultaneous lineups. Sequential lineups cut the rate of false identifications in half because the witness is more likely to make an identification based on memory as opposed to which lineup member most closely resembles his or her memory of the perpetrator.

6. **The use of non-blind administration procedures**: The use of non-blind administration procedures, as compared to double-blind administration procedures, may influence a witness's identification decision.

7. **Pre-identification instruction bias**: Informing the eyewitness that the police have a suspect, or failing to tell the witness that the actual perpetrator "may or may not be present" in the lineup, is akin to telling the witness that the actual perpetrator is in the lineup.

8. **Co-witness contamination**: Co-witness contamination influences the accuracy of an eyewitness's description as well as an eyewitness's identification.

9. **Witness confidence and accuracy**: Research shows that there is only a small to moderate relationship between the accuracy of an eyewitness's identification and confidence in that identification.

10. **Post-identification feedback effect**: Research shows that informing the eyewitness that he or she has positively identified the perpetrator has a significant impact on the witness's confidence in all subsequent identifications.

11. **Commitment effects**: When a witness makes an identification, that witness tends to "commit" to that identification and continue to identify the same person in future lineups and proceedings.

Dr. Dysart concluded that the reliability of Witness 1's identification is undermined by the presence of these 11 factors.

Delaware Rule of Evidence 702: Admissibility of Expert Testimony

Delaware Rule of Evidence 702 governs the admissibility of expert testimony and permits the presentation of "scientific, technical or other specialized knowledge" if it "will assist the trier of fact to understand the evidence or to determine a fact in issue."[25] To be admissible, the testimony must be: (1) based upon sufficient facts or data; (2) the product of reliable principles and methods; and (3) the witness must have applied the principles and methods reliably to the facts of the case.[26]

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[25] D.R.E. 702.

[26] *Id.*

D.R.E. 702 is substantially similar to Federal Rule of Evidence 702. In *M.G. Bancorporation v. LeBeau*,[27] the Delaware Supreme Court followed the United States Supreme Court's interpretation of F.R.E. 702 in *Daubert v. Merrell Dow Pharmaceuticals, Inc*.[28] In *Daubert*, the United States Supreme Court held that F.R.E. 702 requires trial judges to ensure that all expert testimony is not only relevant, but reliable.[29]

To fulfill the role of gatekeeper, the trial judge must determine whether:

1. the witness is qualified as an expert by knowledge, skill, experience, training or education;

2. the evidence is relevant and reliable;[30]

3. the expert's opinion is based upon information reasonably relied upon by experts in the particular field;

4. the expert testimony will assist the trier of fact to understand the evidence or to determine a fact in issue; and

5. the expert testimony will not create unfair prejudice or confuse or mislead the jury.[31]

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[27] 737 A.2d 513, 521-22 (Del. 1999).

[28] 509 U.S. 579 (1993).

[29] *Id.* at 589.

[30] *Id.* at 590-94.

[31] *Bowen v. E.I. DuPont de Nemours & Co.*, 906 A.2d 787, 795 (Del. 2006).

A trial judge must determine whether an expert's testimony has a reliable basis in the knowledge and experience of the relevant discipline.[32] Just because an expert is qualified in a field does not automatically make the opinion reliable.[33] Expert knowledge requires more than unsupported speculation.[34] The trial judge must determine whether the expert, though qualified, can produce a sufficiently informed opinion that is testable and verifiable.[35] Only after the trial judge determines that the expert proffers a "relevant, reliable, validated, and therefore, trustworthy" opinion, can the expert offer the opinion to the jury and be subject to cross-examination.[36]

The *Daubert* Court provided a nonexhaustive list of factors for trial judges to consider in determining whether expert testimony is sufficiently reliable:

1. whether a theory or technique can or has been tested;

2. whether it has been subjected to peer review and publication;

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[32] *Id.* at 784.

[33] *Eskin v. Carden*, 842 A.2d 1222, 1228 (Del. 2004); *see also Goodridge v. Hyster Co.*, 845 A.2d 498, 503 (Del. 2004).

[34] *Daubert*, 509 U.S. at 590.

[35] *Eskin*, 842 A.2d at 1228; *see also Daubert*, 509 U.S. at 593 (noting that whether a theory or technique will assist the trier of fact as scientific knowledge will often depend upon whether it can and has been tested).

[36] *Potter v. Blackburn*, 850 A.2d 294, 299 (Del. 2004) (quoting *Mason v. Rizzi*, 2004 WL 439690, at *4 (Del.)).

3. whether a technique has a high known or potential rate of error and whether there are standards controlling its operation; and

4. whether the theory or technique enjoys general acceptance within a relevant community.[37]

"The party seeking to introduce the expert testimony bears the burden of establishing its admissibility by a preponderance of the evidence."[38]

Analysis

Expert Qualifications

It is undisputed that Dr. Dysart is qualified as an expert in the field of eyewitness identification based upon her knowledge, skills, experience, training and education. Dr. Dysart received a Ph.D. in Social Psychology from Queen's University. For the past six years, Dr. Dysart has been an Associate Professor of Psychology at John Jay College of Criminal Justice, specializing in eyewitness identification research. Dr. Dysart has authored or co-authored over a dozen eyewitness publications, including original research articles published in peer-reviewed science journals as well as a book entitled "Eyewitness Identification: Civil and Criminal." Dr. Dysart

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[37] *Daubert*, 509 U.S. at 590-94; *see also Gen. Motors Corp. v. Grenier*, 2009 WL 2581722, at *8-9 (Del.).

[38] *Bowen*, 906 A.2d at 795.

has been admitted as an expert witness in the field of eyewitness identification approximately 25 times, in several jurisdictions.

Reliability and Relevance

In determining the reliability of an expert witness's testimony, the Court must consider the *Daubert* factors as they relate to each of the 11 estimator and system variables identified by Dr. Dysart. To reiterate, these factors include: (1) whether the theory or technique can be tested; (2) whether it has been subjected to peer review; (3) whether the technique has a high known or potential rate of error; and (4) whether the theory has attained general acceptance within the scientific community. If the Court determines that a specific variable is reliable, the Court must then decide whether the expert's testimony is relevant to the case at hand, as well as whether the expert's testimony will assist the jury in understanding the evidence. The Court will address each variable *seriatim*.

Estimator Variables

1. Effect of Brief Exposure on Eyewitness Accuracy

During the *Daubert* hearing, Dr. Dysart testified that there is a systematic relationship between exposure time and identification accuracy. According to Dr. Dysart, the longer the opportunity for a witness to view a perpetrator's face, the greater the likelihood that the witness's identification

will be accurate. Research shows that accuracy is decreased when the eyewitness views the perpetrator's face for less than 30 seconds. Dr. Dysart testified that the effect of exposure duration on eyewitness accuracy becomes relevant in this case if evidence is presented that Witness 1 observed the perpetrator's face for less than one minute.

Dr. Dysart explained that the effect of exposure duration on eyewitness accuracy has been studied extensively and is generally accepted as reliable within the relevant scientific community.[39] In support of her opinion, Dysart presented data from 1986 peer-reviewed meta-analysis[40] performed by Peter N. Shapiro and Steven Penrod. This data demonstrated that exposure duration has a moderate to large effect on accuracy.[41] Dr. Dysart also relied upon a 2003 peer-reviewed study conducted by Amita

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[39] In offering her opinion as to the "general acceptance" of certain scientific theories, Dr. Dysart relied upon a 2001 empirical survey conducted by Saul Kassin. Saul M. Kassin et al., *On the "General Acceptance" of Eyewitness Testimony Research: A New Survey of the Experts*, 56 Amer. Psychologist 405 (2001). The Kassin study surveyed a group of 64 leading experts in the field of eyewitness identification research with respect to the reliability of various factors that tend to affect the accuracy of eyewitness identifications. Sixteen theories were deemed sufficiently reliable to be presented to a jury, based on agreement by at least 80% of the experts surveyed.

[40] A meta-analysis, as Dysart explained, is a summary of all relevant research published to date that provides a "snapshot" of the state of science on a particular issue or variable. *See also Henderson,* 27 A.3d at 893 ("A meta-analysis is a synthesis of all obtainable data collected in a specified topical area. The benefits of a meta-analysis are that greater statistical power can be obtained by combining data from many studies.").

[41] Peter N. Shapiro & Steven Penrod, *Meta–Analysis of Facial Identification Studies,* 100 Psychol. Bulletin 139, 150 (1986).

Memon, which found that "[l]onger exposure significantly boosted accuracy rates for both young and older participants."[42] The Memon study also found that longer exposure durations yielded stronger confidence/accuracy relationships.[43]

Dr. Dysart opined that the effect of exposure duration on eyewitness accuracy is not within the knowledge and experience of an average juror. According to Dr. Dysart, the average juror does not understand the impact that small durations of viewing time have on an eyewitness's reliability.

The Court finds that the effect of exposure duration on eyewitness accuracy is generally accepted as reliable in the relevant scientific community. The Court further finds that expert testimony with respect to event duration will assist the jury in evaluating Witness 1's ability to identify the perpetrator. However, Dr. Dysart's testimony only becomes relevant, and thus admissible, if evidence is presented that Witness 1 may have viewed the perpetrator's face for less than one minute.

2. Effects of Distance on Perception

Research has shown that there is a decrease in an eyewitness's identification accuracy as distance between the witness and the perpetrator

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[42] Amita Memon et al., *Exposure Duration: Effects on eyewitness accuracy and confidence*, 94 British J. Psychol. 339, 348 (2003)

[43] *Id.* at 349.

increases. Specifically, Dr. Dysart explained that distances greater than 50 yards have a significant impact on the accuracy of an eyewitness's description and a small effect on an eyewitness's identification accuracy. According to Dr. Dysart, research demonstrates that impairments and difficulty in accuracy are apparent when the perpetrator is at least 30 yards away from the eyewitness.

Dr. Dysart testified that the effect of distance on eyewitness accuracy is generally accepted as reliable in the relevant scientific community and studies analyzing such effect have been subjected to peer-reveiw. In support of her opinion, Dr. Dysart identified several studies which demonstrate the effects of distance on a witness's ability to view the details of a person's face. A 2005 study by Geoffrey Loftus and Erin Harley found that as a face moved away from an observer, the available face details became progressively coarser.[44] This finding was corroborated by a 2008 study conducted by R.C.L. Lindsay, which found that the "accuracy of [eye]witness identification decisions was significantly influenced by the distance between the witness and the target at the time of exposure."[45] Dr.

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[44] Geoffrey R. Loftus & Erin M. Harley, *Why is it easier to identify someone close than far away?* Psychonomic Bulletin & Review 12, 43-65 (2005).

[45] R.C.L. Lindsay, et al., *How Variations in Distance Affect Eyewitness Reports and Identification Accuracy*, 32 Law & Hum. Behav. 526, 533 (2008).

Dysart also relied upon a 1996 study conducted by W. A. Wagenaar and J.H. van der Schrier, which recommended a 15-meter distance as a useful "rule of thumb" for admissibility in court.[46]

Dr. Dysart explained that the effect of distance on eyewitness accuracy is outside the realm of a juror's common understanding. According to Dr. Dysart, because research demonstrates that people have difficulty judging the distance between themselves and another person, expert testimony aids the jury in understanding that eyewitness descriptions may be less accurate at longer distances.

The Court finds that the effect of distance on eyewitness accuracy is generally accepted as reliable in the relevant scientific community. Further, the Court finds that expert testimony concerning the effect of distance on accuracy will assist the jury. This testimony only becomes relevant, however, if evidence is presented that Witness 1 may have observed the perpetrator from a distance of 30 yards or greater.

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[46] W. A. Wagenaar & J.H. van der Schrier, *Face recognition as a function of distance and illumination: A practical tool for use in the courtoom*, Psychol., Crime, & Law 2, 321-332. The Lindsay study refutes this finding, noting that a 15-meter rule is "not particularly useful for the courts." According to the Lindsay study, "A less stringent approach would suggest that the evidence could be presented but that the weight accorded to identification evidence obtained following an exposure from more than 15 [meters] should be minimal."

3. Weapon Focus Effect

Dr. Dysart opined that when a witness focuses on a weapon, the ability to adequately remember and later recall details, such as characteristics of the perpetrator, is lessened. Specifically, research demonstrates that the presence of a weapon during a crime has a moderate effect on an eyewitness's description accuracy and a small effect on an eyewitness's identification accuracy. Dr. Dysart testified that the weapon focus effect is generally accepted as reliable in the relevant scientific community and has been subjected to peer-review.

To support this proposition, Dr. Dysart relied on a 2011 meta-analysis performed by Jonathan M. Fawcett.[47] The Fawcett meta-analysis revealed that "weapon presence [] consistently demonstrated a negative effect on both feature accuracy and identification accuracy under controlled conditions."[48]

Dr. Dysart testified that the average juror is unlikely to be aware of the effects on eyewitness accuracy when a weapon is present. According to Dr. Dysart, jurors believe that when a perpetrator wields a weapon during a crime, the eyewitness is more focused, and therefore, more likely to be accurate. Research, however, demonstrates the exact opposite effect.

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[47] Jonathan M. Fawcett, et al., *Of guns and geese: a meta-analytic review of the "weapon focus" literature*, Psychol., Crime & Law 1 (2011).

[48] *Id.* at 22.

The Court finds that the weapon focus effect is generally accepted as reliable, and expert testimony in this area will likely assist the jury in determining what weight to give the evidence. Further, because Witness 1 has indicated that he observed a weapon in the perpetrator's possession, expert testimony on the weapon focus effect is highly relevant. Dr. Dysart will be permitted to offer expert testimony on weapon focus effect, without any additional evidentiary prerequisite.

4. The Effects of Stress and Fear on Memory

Research has shown that heightened stress negatively impacts the accuracy of an eyewitness's identification. In other words, stress reduces correct identification rates. Dr. Dysart explained that this phenomenon is generally accepted as reliable in the relevant scientific community.

Relying on a 2004 peer-reviewed meta-analysis conducted by Kenneth A. Deffenbacher,[49] Dr. Dysart explained that stress and arousal have moderate effects on the accuracy of an eyewitness's identification.[50] The Deffenbacher meta-analysis found that individuals in a low-stress environment were able to identify a perpetrator accurately in a target-present identification procedure 59% of the time while individuals in a high-stress

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[49] Kenneth A. Deffenbacher, et al., *A Mete-Analytic Review of the Effects of High Stress on Eyewitness Memory*, 28 Law & Hum. Behav. 687, 699 (2004).

[50] *Id.* at 699.

environment were able to identify a perpetrator accurately in a target-present identification procedure only 39% of the time.[51]

In offering her opinion, Dr. Dysart also cited a 2004 peer-reviewed study conducted by Dr. Charles A. Morgan, which demonstrated that under conditions of high stress versus low stress, the likelihood of an accurate identification of the perpetrator decreases by up to 40%.[52]

Dr. Dysart explained that jurors often mistakenly believe that stressful circumstances are "burned into an eyewitness's memory," and therefore, produce greater accuracy in the eyewitness's identification. Research, however, demonstrates that high degrees of stress impair an eyewitness's ability to encode and process information.

The Court finds that the event stress phenomenon is generally accepted as reliable in the relevant scientific field. The Court further finds that expert testimony in this area will assist the jury in evaluating the reliability of Witness 1's identification. However, in order for such testimony to be relevant, and thus admissible in this case, evidence must be presented that Witness 1 may have been under a state of stress or fear at the time he observed the perpetrator or immediately following the crime.

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[51] *Id.* at 695.

[52] Charles A. Morgan, et al., *Accuracy of eyewitness memory for persons encountered during exposure to highly intense stress*, 27 Int'l J.L. & Psychiatry 265, 272 (2004).

System Variables

5. **Simultaneous Lineup versus Sequential Lineup**

Dr. Dysart testified that sequential lineups are generally superior to simultaneous lineups. According to Dr. Dysart, sequential lineups, as compared to simultaneous lineups, can cut the rate of false identifications in half. Dr. Dysart opined that the "dominant explanation for this difference is that witnesses who view simultaneous lineups are more likely to engage in a relative judgment process and choose the lineup member who most closely resembles their memory for [sic] the perpetrator."

Because there was no sequential lineup conducted in the instant matter, the Court finds that expert testimony comparing the reliability in results from the two types of lineup methods is irrelevant, and therefore, inadmissible.

6. **Use of Non-blind Administration Procedures**

According to Dr. Dysart, the use of non-blind administration procedures, as compared to double-blind administration procedures, may influence a witness's identification decision.[53] Research demonstrates that "police sometimes conduct lineups in a manner that clearly shows how their

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[53] A non-blind administration occurs when the lineup administrator knows the identity of the suspect. Conversely, a double-blind administration occurs when the lineup administrator is kept "blind" to the suspect's identity.

knowledge of which person is the suspect can lead them to say things that focus the eyewitness on the suspect." Such influence may be unintentional and outside the officer's awareness *(i.e.,* nodding and smiling) or it may be purposeful and explicit.

In support of her opinion, Dr. Dysart presented data from a 2009 peer-reviewed study conducted by Margaret B. Kovera and Sarah M. Greathouse.[54] The study found that "identifications of the suspect obtained when the administrator does not know the identity of the suspect in the photo array provide better information about the true guilt of the identified suspect."[55] Researchers found this result likely attributable to the fact that administrators who knew the identity of the suspect exhibited certain behaviors at a greater rate than administrators who did not know the suspect's identity.[56] Specifically, administrators with knowledge of the suspect's identity "were more likely to tell the witness to examine the lineup carefully, to take another look at the lineup after the witness failed to make

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[54] Sarah M. Greathouse & Margaret B. Kovera, *Instruction Bias and Lineup Presentation Moderate the Effects of Administrator Knowledge on Eyewitness Identification*, 33 Law & Hum. Behav. 70 (2009).

[55] *Id.* at 79.

[56] *Id.* at 76.

an identification, and to remove a picture from consideration slowly if the witness rejected it as a suspect."[57]

The Court finds that Dr. Dysart's proffered testimony regarding the use of non-blind administration procedures is not sufficiently supported by scientific research to pass muster under *Daubert.* No testimony was elicited from Dr. Dysart establishing that the principles on which she bases her testimony are generally accepted within the relevant scientific community. As such, Dr. Dysart is not permitted to offer testimony concerning non-blind administration procedures.

7. Pre-identification Instruction Bias

Dr. Dysart testified that suggestive identification instructions significantly affect eyewitness performance. According to Dr. Dysart, informing the eyewitness that the police have a suspect, or failing to tell the eyewitness that the actual perpetrator "may or may not be present" in the lineup, is akin to telling the eyewitness that the actual perpetrator *is* in the lineup. As such, Dr. Dysart testified that it is essential for law enforcement officers to explicitly instruct witnesses that the suspect "may or may not be present in the lineup." Such an instruction minimizes the witness's

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[57] *Id.*

inclination to guess or to be guided by suggestion simply because the witness believes that the suspect must be in the lineup.

Dr. Dysart testified that the impact of biased police lineup instructions is generally accepted as reliable in the relevant scientific community. To support this proposition, Dr. Dysart relied upon a 1997 peer-reviewed meta-analysis conducted by Nancy M. Steblay, which examined the impact of biased lineup instructions.[58] The Steblay meta-analysis found that biased witness instructions have a moderate effect on eyewitness identification accuracy.[59] The meta-analysis also found that eyewitness confidence was significantly higher following biased police lineup instructions.[60]

The Court finds that pre-identification instruction bias is generally accepted in the relevant scientific community and has been subjected to peer-review. Additionally, the Court finds that expert testimony in this area will assist the jury in evaluating the reliability of Witness 1's identification. Therefore, Dr. Dysart will be permitted to testify as an expert in the area of pre-identification instructions bias.

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[58] Nancy M. Steblay, *Social Influence in Eyewitness Recall: A Meta-Analytic Review of Lineup Instruction Effects*, 21 Law & Hum. Behav. 283 (1997).

[59] *Id.* at 294.

[60] *Id.*

8. Co-witness Contamination

Co-witness contamination occurs when witnesses speak with one another after the event and provide each other with information such that each witness's memory is changed or contaminated. Dr. Dysart testified that co-witness contamination influences the accuracy of an eyewitness's description as well as an eyewitness's identification two-fold. In order to avoid such contamination, Dr. Dysart testified that researchers recommend interviewing witnesses separately.

In offering her opinion, Dr. Dysart relied upon a 2008 peer-reviewed study conducted by Lorraine Hope.[61] The Hope study demonstrated that participants "were susceptible to misinformation from their co-witness and, as a consequence, produced less accurate recall accounts than participants who did not interact with another witness."[62] Moreover, "witnesses who were previously acquainted with their co-witness (as a friend or romantic partner) were significantly more likely to incorporate information obtained solely from their co-witness into their own accounts."[63] Dr. Dysart further

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[61] Lorraine Hope, *"With a little help from my friends…": The role of co-witness relationship in susceptibility to misinformation*, 127 Acta Psychologica 476 (2008).

[62] *Id.* at 481.

[63] *Id.*

testified that co-witness contamination is a theory beyond the ken of the average juror.

The Court finds that Dr. Dysart is permitted to offer testimony regarding co-witness contamination so long as evidence is presented at trial that raises an issue as to whether the presence of the co-witnesses, during presentation of the photographic array to Witness 1, may have influenced or contaminated Witness 1's identification.

9. Witness Confidence and Accuracy

Dr. Dysart testified that there is only a small to moderate relationship between the accuracy of an eyewitness's identification and his confidence in the identification. Specifically, Dr. Dysart testified that research shows a 40% correlation between a witness's confidence and his accuracy. Such a theory, Dr. Dysart testified, is generally accepted as reliable in the relevant scientific community.

Dr. Dysart explained that the accuracy/confidence correlation has been studied extensively and subjected to peer-review. In offering her opinion, Dr. Dysart presented data from a 2005 peer-reviewed meta-analysis

conducted by Siegfried Ludwig Sporer.[64] The Sporer meta-analysis found a moderate relationship between confidence and accuracy.[65]

Dr. Dysart also relied upon a 2002 peer-reviewed study conducted by Gary L. Wells, which found that confidence may be a useful tool in determining accuracy unless other factors are present.[66] For instance, the Walls study found that repeated questioning of eyewitnesses about mistaken memories does not make the memories more accurate but does inflate the eyewitnesses' confidence in those memories.[67] Additionally, the study found that when eyewitnesses are given confirming feedback following their identification decisions, the confidence of inaccurate eyewitnesses is inflated more than is the confidence of accurate eyewitnesses.[68]

The Court finds that the relationship between eyewitness accuracy and confidence is generally accepted within the relevant scientific community. The Court also finds that expert testimony addressing the correlation between accuracy and confidence would assist the jury.

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[64] Siegfried L. Sporer, et al., *Choosing,. Confidence, and Accuracy: A Meta-Analysis of the Confidence-Accuracy Relation in Eyewitness Identification Studies*, 118 Psychol. Bulletin 315 (1995).

[65] *Id.* at 321-22.

[66] Gary L. Wells, et al., *The Confidence of Eyewitnesses in Their Identifications from Lineups*, 11 Current Directions Psychol. Sci. 151 (2002).

[67] *Id.* at 151-52.

[68] *Id.* at 153.

However, Dr. Dysart's opinion regarding the effect of Detective Pfaff's encouragement to Witness 1 to make an identification, even if "only 1% certain," will not be permitted. This conclusion appears to the Court to be the personal opinion of Dr. Dysart, which has not been specifically subjected to scientific testing.

10. Post-Identification Feedback

Dr. Dysart testified that informing an eyewitness that he has positively identified the perpetrator has a significant impact on the witness's confidence in all subsequent identifications. According to Dr. Dysart, research shows that witnesses who receive confirming feedback, "exaggerate[] how good their view was of the culprit, how much attention they paid to the culprit's face while observing the event, and so on."

Dr. Dysart explained that the effects of confirming feedback are generally accepted as reliable in the scientific community and have been subjected to peer-review. In support or her opinion, Dr. Dysart presented data from a 2006 meta-analysis performed by Amy Bradfield Douglass and Nancy Steblay.[69] According to Dr. Dysart, the results of this meta-analysis

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[69] Amy B. Douglass & Nancy Steblay, Memory Distortion in Eyewitnesses: *A Meta-Analysis of the Post-identification Feedback Effect*, 20 Appl. Cognit. Psychol. 859 (2006).

demonstrated that the effects of post-identification feedback are "robust."[70]

The meta-analysis found that "those [witnesses] who receive a simple post-identification confirmation regarding the accuracy of their identification significantly inflate their reports to suggest better witnessing conditions at the time of the crime, stronger memory at the time of the lineup, and sharper memory abilities in general."[71]

Dr. Dysart testified that the effects of post-identification feedback are not within the average juror's common sense. Dr. Dysart explained that individuals generally don't understand "that telling someone you got something right would then translate into [he or she] saying [he or she] got a better view of the perpetrator, that [he or she] were paying more attention, … that it was easier for [him or her] to make an identification decision."

The Court finds that the effects of post-identification feedback are generally accepted within the relevant scientific community. The Court further finds that expert testimony regarding the effects of post-identification feedback will assist the jury in evaluating the reliability of Witness 1's identification. Therefore, Dr. Dysart is permitted to testify as to the effects of post-identification feedback.

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[70] *Id.* at 864.

[71] *Id.* at 864-65.

11. Commitment Effects

Dr. Dysart testified that when a witness makes an identification, that witness tends to "commit" to that identification and continue to identify the same person in future lineups and proceedings. According to Dr. Dysart, research has shown moderate to large effects of commitment on later witness identification accuracy. This phenomenon, Dr. Dysart testified, is generally accepted as reliable in the relevant scientific community.

In offering her opinion, Dr. Dysart relied upon a 2006 peer-reviewed meta-analysis performed by Kenneth A. Deffenbacher, which studied the effects of prior mugshot exposure on accuracy.[72] The study found "substantial quantitative support for the empirical generalization that exposure to a mugshot of a suspect increases the probability that the eyewitness will subsequently choose that suspect in a lineup, especially when the real suspect is absent."[73]

Dr. Dysart testified that commitment effects are not within the common sense of an average juror. According to Dr. Dysart, research shows that jurors view the in-court identification as a "critical" moment in the trial, where the eyewitness is making an independent identification. This belief,

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[72] Kenneth A. Deffenbacher et al., *Mugshot Exposure Effects: Retroactive Interference, Mugshot Commitment, Source Confusion, and Unconscious Transference*, 30 Law & Hum. Behav. 287 (2006).

[73] *Id.* at 303.

however, is inconsistent with studies which show that the in-court identification is merely a commitment to a previous identification.

The Court finds that the commitment effect is generally accepted in the relevant scientific community and has been subjected to peer-review. Additionally, the Court finds that expert testimony regarding the commitment effects will assist the jury. Therefore, Dr. Dysart is permitted to offer testimony in this area.

Unfair Prejudice, Confusion, Potential to Mislead the Jury

There is no evidence to suggest that the introduction of Dr. Dysart's testimony will confuse or mislead the jury. The defendant's identity as the perpetrator appears to be a crucial issue in this case.[74] Therefore, the Court finds that expert testimony in the field of eyewitness identification (and limited to the relevant system and estimator variables) will aid the jury in evaluating the reliability of Witness 1's identification.

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[74] *See U.S. v. Downing*, 753 F.2d 1224, 1243 (3d Cir. 1985) ("[I]t would seem anomalous to hold that the probative value of expert opinion offered to show the unreliability of eyewitness testimony so wastes time or confuses the issue that it cannot be considered even when its putative effect is to vitiate the only (eyewitness) evidence offered by the government.").

CONCLUSION

The Court has considered the proffered testimony of the Defendant's expert witness, on the issue of eyewitness reliability, pursuant to the *Daubert*[75] procedure, as adopted by the Delaware Supreme Court.

As the gatekeeper of evidence to be presented to the jury, the Court finds:

1.   **Effects of brief exposure on eyewitness accuracy**: Testimony will be permitted if trial evidence indicates that Witness 1 may have viewed the perpetrator's face for less than one minute.

2.   **Effects of distance on perception**: Testimony will be permitted if trial evidence indicates that Witness 1 may have observed the perpetrator from a distance of 30 yards or greater.

3.   **Weapon focus effect:** Testimony will be permitted.

4.   **Effects of stress/fear on memory**: Testimony will be permitted if trial evidence indicates that Witness 1 may have been under a state of stress or fear at the time he observed the perpetrator during or immediately following the crime.

5.   **Use of simultaneous lineup rather than a double-blind sequential lineup**: Testimony is irrelevant and will not be permitted.

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[75] *Daubert v. Merrell Dow Pharmaceuticals, Inc.,* 509 U.S. 579 (1993); *M. G. Bancorporation v. Le Beau,* 737 A.2d 513, 521-22 (Del. 1993).

6. **Use of non-blind administration procedures**: No evidence that proffered conclusions are generally accepted within the relevant scientific community, therefore, testimony will not be permitted.

7. **Pre-identification instruction bias**: Testimony will be permitted.

8. **Co-witness contamination**: Testimony will be permitted if trial evidence raises an issue as to whether the presence of the co-witnesses, during presentation of the photographic array to Witness 1, may have influenced or contaminated Witness 1's identification.

9. **Witness confidence and accuracy**: Testimony will be permitted. However, the expert may not opine on the effect of the statement encouraging identification if "only 1% certain."

10. **Post-identification feedback effect**: Testimony will be permitted.

11. **Commitment effects**: Testimony will be permitted.

THEREFORE, the State's Motion to Exclude Defense Expert Testimony is **DENIED IN PART** and **GRANTED IN PART.**

IT IS SO ORDERED.

/s/ *Mary M. Johnston*
The Honorable Mary M. Johnston