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SJC-09685

COMMONWEALTH vs. CRAIG POWELL.

Suffolk. October 5, 2007. - December 10, 2007.

Present: Marshall, C.J., Greaney, Cowin, & Cordy, JJ.

Grand Jury. Evidence, Blood sample, Scientific test, Expert opinion. Search and Seizure, Blood sample.

Indictment found and returned in the Superior Court Department on June 4, 2002.

A preindictment hearing on a petition for an order directing the defendant to provide a blood sample was had before Joseph M. Walker, III, J., and the case was tried before Margot Botsford, J.

Chrystal A. Murray for the defendant.
Lynn D. Brennan, Assistant District Attorney, for the Commonwealth.

GREANEY, J. The victim, Gerard Bannon, was bludgeoned to death in his apartment on March 2, 2002. A jury convicted the defendant of Bannon's murder (finding murder in the first degree by reason of extreme atrocity or cruelty).¹ Represented by new counsel on appeal, the defendant argues (1) error in the allowance of the grand jury's petition to take a blood sample

¹ The Commonwealth had proceeded on theories of deliberate premeditation and extreme atrocity or cruelty.

from the defendant; (2) that the trial judge² abused her discretion in concluding that the Commonwealth's bloodstain analysis evidence was reliable (and, therefore, admissible) under the standards set forth in Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993), and Commonwealth v. Lanigan, 419 Mass. 15 (1994); and (3) error in the admission at trial of portions of the Commonwealth's expert testimony on the bloodstain evidence. We affirm the order allowing the grand jury's petition to take a blood sample from the defendant, and find no error in the judge's evidentiary rulings. We conclude that the defendant is not entitled to relief under G. L. c. 278, § 33E, and affirm the defendant's judgment of conviction.

Based on the evidence in the Commonwealth's case, the jury could have found the following facts. Sometime in 2000, the defendant began working as a part-time carpenter and painter for Patrick Maguire. The defendant had a few hand tools, but would borrow power tools from Maguire. In the spring of 2001, after the defendant was evicted from his rooming house, Maguire permitted the defendant to stay, on a temporary basis, in the basement of an apartment building that Maguire owned (with another) in the Dorchester section of Boston. There were two separate entrances to the basement, one leading from the first-floor hallway, and one leading from the outside rear of the house.

² The trial judge was not the judge who allowed the grand jury's petition for a blood sample.

In August, 2001, the victim, a skilled plasterer and mason, started working for Maguire. A few weeks earlier, the defendant had moved out of the basement to a trailer located in the rear yard of Maguire's property. The trailer did not have a bathroom, so Maguire allowed the defendant to use the first floor bathroom in the apartment building.

That fall, Maguire observed the defendant and the victim working together. The two did not get along when they were drinking.

In November or December, 2001, the victim moved into the basement of Maguire's apartment building. Maguire installed locks on both basement doors. Only Maguire and the victim had keys to those doors. The victim was "between apartments," and Maguire indicated that his stay in the basement was to be temporary.

In December, 2001, Maguire asked the defendant to move out of the trailer because the defendant had been drinking heavily and bothering tenants in the apartment building. The defendant stopped working for Maguire and entered into a written agreement with him to stay away from the property. The agreement also provided that, if the defendant entered a program addressing his issues with alcohol, Maguire would permit him back on his property. Maguire changed some of the locks to the apartment building. Shortly thereafter, the defendant returned, asking Maguire for work. Maguire declined to hire him.

At approximately 11 A.M. on January 30, 2002, the victim

telephoned 911 from the apartment building. When responding, Boston police officers first encountered the defendant, who stated that he had been involved in an argument with his roommate about tools. The defendant had a hammer tucked into his belt area that an officer removed. After an officer spoke with the victim, who alleged that the defendant had swung a hammer at him, the defendant was arrested. Both the defendant and the victim appeared to be intoxicated. The defendant was charged with assault by means of a dangerous weapon. Although he no longer lived at the apartment building, the defendant told one of the officers that he resided there.

The defendant remained in custody until March 1, 2002, when he admitted to sufficient facts and received a continuance without a finding on the assault charge. In a meeting with his probation officer, the defendant indicated that he was not happy with the outcome of the case, and talked about getting his tools back from someone.

Thereafter, the defendant visited Richard Davis, a man for whom he had done work over the years. The defendant told Davis that he had been wrongly arrested after having an argument with a resident at Maguire's apartment building, and that the argument was over the defendant's retrieval of his tools. The defendant told Davis that the resident had lied to police. The defendant indicated that he wanted to remove a lock at Maguire's building so that he could get his tools.

That afternoon, the defendant went to a local tavern. The

victim had arrived earlier and was seated at the bar. The defendant told the victim that he wanted his tools back, and the men argued for ten to fifteen minutes, until the bartender asked the defendant to leave. The defendant left without further incident.

The defendant went to the place of employment of one of the tenants of the apartment building. The defendant asked the tenant for help in getting back his job with Maguire. The defendant, who is African-American, stated, "The white guy got my job."

Later that evening, between 8 and 9 P.M., the defendant went to the apartment building and asked a tenant on the second floor to open the basement door for him. The defendant stated that he had to get his tool box, but that the door was locked and the victim was not opening it despite his knocking. The defendant suggested that the tenant tell the victim that her heat was up too high so the victim would open the door, which would allow the defendant entry. The tenant refused to help the defendant.

On March 2, 2002, at approximately 4:30 A.M., the defendant knocked on the door to the first-floor apartment of another tenant, and asked to speak with the tenant who did not see the defendant, but recognized his voice. Twenty minutes later, the defendant returned and asked this tenant, through the door, to hold his tools until the next day. The tenant refused. About five minutes later, the defendant came up from the basement on the stairs, knocked on the tenant's door, and stated that the

victim was not answering him. The defendant said that the victim was dead and was not opening the door. The tenant thought the defendant was intoxicated and told the defendant that he was going back to bed.

At about 5:30 A.M., the defendant telephoned 911 from the apartment building and reported that "this dude" appeared to be dead, that "he's bashed his head," and that "he's slumped over in the chair." Emergency medical technicians (EMTs), followed by police, responded. The defendant met the EMTs on the front lawn and acknowledged that he had made the 911 telephone call. The defendant told them that he did not know if the victim was still breathing. He led the EMTs and Boston police Officer William G. Johnson, who had arrived, to the basement. The EMTs approached the victim and determined that he had no pulse. The victim was in a recliner, with his head against the arm of the chair. He had brain matter and skull fragments on his shirt. There was a large amount of blood under his head, which had soaked into the arm of the chair and dripped down to the floor beneath. There were spots of blood in a ninety degree arc about the area, and throughout the room.

Officer Johnson asked the defendant what had happened. The defendant stated that at about 5:10 A.M., he had discovered the rear basement door open, went inside, and found the victim on the floor. The defendant stated that he had been working at the property as a carpenter. He pointed to blood on his jacket, which was on a pile of lumber in the basement, and explained that

the blood got there when he lifted the victim from the floor to the chair. The defendant was wearing brown work boots and blue jeans, and had a hammer in the front of his belt and a screwdriver in his back pocket. Officer Johnson took the hammer and screwdriver. There was one small spot of blood on the hammer shaft and a brownish-reddish stain on the handle. Officer Johnson smelled alcohol on the defendant.

Police Superintendent Robert Dunford arrived. He noticed a bloodstain on the defendant's boot. The defendant took out a piece of paper from the Dorchester District Court probation department and told Dunford that he previously had been arrested for assaulting the victim. After Dunford assured the defendant that his tools would be secured, the defendant agreed to go to the police station to be interviewed.

At the police station, the defendant made statements to the police. After the police determined that the defendant could speak coherently, could understand the officers, and did not appear to have any problems with balance or his motor skills, he was given Miranda warnings. The defendant told police that he had been locked up for the last month, and had just been released the day before, for assaulting the victim with a hammer. With respect to that assault charge, the defendant denied that any physical harm had occurred. The defendant admitted that on the morning after his release, he went to see the victim to get his tools. The victim refused to let the defendant in. The defendant went across the street to have a drink, went back to

the trailer, and then returned to the apartment building and noticed that the basement door was open. He went in to get his saw and noticed the victim lying on the floor. He tried to wake the victim up. The defendant rolled the victim over and picked him up with his right arm under the victim's shoulder and head, and his left arm under the victim's legs. In doing so, the defendant got blood on his hands and boot. He wiped his hands on his coat.

The defendant told the officers that the victim used to lie to Maguire and was favored by Maguire. The defendant relayed that he and the victim got along until the victim started telling him how to do his job. The defendant told the victim he had to get out of his face because "he didn't know jack shit." The defendant denied having any fight or altercation with the victim since his release from custody on the assault charge.

During the interview, Sergeant Detective Daniel J. Coleman observed small spots of blood on the inside of the corners of the defendant's eyes, near the bridge of his nose, on his forehead at the hairline, and inside the thumb webbing of his right hand. Police photographed these spots, and technicians from the crime laboratory took samples of these spots as well as samples of stains from the defendant's clothing. The defendant was arrested at the conclusion of the interview. Technicians from the crime laboratory recovered blood and other evidence, such as skull fragments, from the basement. The blood evidence recovered included a small amount of blood from a bathroom wall, behind the

cold water faucet handle. The day after the victim's killing, Maguire noticed that the lock on one of the doors leading to the basement was broken.

Elizabeth Ziolkowski, an expert on bloodstain analysis, and a senior criminalist³ with the Boston police department crime laboratory, testified for the Commonwealth. She reported that blood had been found on various items, including the defendant's hammer; the defendant's black, hooded sweatshirt; the defendant's jacket; a paper towel that was retrieved from a pocket of the defendant's jacket; the defendant's jeans; and the defendant's right, brown boot. Ziolkowski concluded that bloodstains from the defendant's jeans, jacket, and boot were spatter stains.⁴ Ziolkowski indicated that the blood on the paper towel included a variety of transfer stains,⁵ including some stains that had sharp edges. In her opinion, the stains on the paper towel were consistent with the shape and size of the defendant's hammer. Ziolkowski also expressed the opinion that the blood on the face and hand of the defendant, as depicted in photographs, were spatter stains.

³ A senior criminalist collects evidence at a crime scene, transports that evidence back to a laboratory, and analyzes it.

⁴ Ziolkowski testified that the characterization of bloodstains as spatter stains indicates that "a force [has been] applied to blood [or a blood source] that causes a dispersion of blood." The larger the force, the smaller the resulting blood spots, or spatter, will be.

⁵ Ziolkowski stated that a transfer stain occurs when "something wet with blood was pressed or laid on [a] surface [and] not dropped on it."

Ziolkowski testified that bloodstain analysis was performed to determine the area of origin of the blood pattern on the refrigerator in the victim's apartment. The analysis was done pursuant to the "stringing method"⁶ and "angle reconstruction."⁷ The results indicated that the source of the blood pattern on the refrigerator, as well as on a gray folding chair, came from a general area above the reclining chair in which the victim was found. Ziolkowski further testified that spatter patterns on the ceiling and walls were consistent with "cast off" patterns, or patterns made by blood that comes off a moving or swinging object. Ziolkowski went on to state her opinion that the blood spatter on the body and clothing of the defendant⁸ was consistent with being in the immediate vicinity of a bloodshed event. She further opined that a bloodstain that fell across the victim's face, into the folds of his hooded sweatshirt, onto his shoulder, onto the reclining chair, down the side of the chair, and then onto the floor, was a "flow pattern" that indicated that blood was flowing due to gravity for some time while the victim was in that position in the chair.

The Commonwealth also introduced evidence from another

⁶ Under the "stringing method," strings were set up to use the geometry of the pattern of bloodstains on the front of the refrigerator to obtain the direction and angle of impact for those stains.

⁷ Ziolkowski explained that "angle reconstruction" is a process that provides the general area of the source of the blood that results in the blood spatter.

⁸ In stating this opinion, Ziolkowski misspoke in that she referenced the victim rather than the defendant.

criminalist, who testified that deoxyribonucleic acid (DNA) testing revealed that DNA consistent with the victim's was extracted from the defendant's jacket. In addition, DNA consistent with both the victim's and the defendant's was extracted from the paper towel found in a pocket of the defendant's jacket.

The medical examiner testified that she observed multiple abrasions and ten distinct lacerations on the victim's head, including three sets of parallel lacerations. In addition, there were multiple skull fractures and pieces of the skull missing. One of the fractures occurred in "an unusual pattern," characterized as a linear fracture and a right angle divot into the skull. Fractures to the outer part of the skull resulted in a crescent-shaped area of destruction. There was also severe injury to the victim's brain. From this evidence, the medical examiner concluded that the victim had been struck repeatedly with something blunt and heavy, and had died as a result of blunt head trauma.

The defendant did not testify. He called one witness, the bartender of the tavern he went to on March 1, 2002, who testified that the defendant and the victim had not fought. The defendant argued that due to his consumption of alcohol, he did not make his statements to police voluntarily. The defendant also asserted that it could not reasonably be inferred that his hammer was the murder weapon. The defendant emphasized that the blood evidence was inadequate and inconclusive.

1. The grand jury investigating the victim's death petitioned the court for the taking of a blood sample from the defendant. The petition was allowed. We reject the defendant's argument that the grand jury failed to demonstrate "a reasonable basis for believing" that the blood sample would "significantly aid" their investigation into the victim's murder. See Commonwealth v. Williams, 439 Mass. 678, 682-683 (2003).

The petition summarized the evidence that the grand jury had heard to date. From that evidence, there was a basis for investigating the defendant's possible involvement in the crime. Reading the petition, in conjunction with the accompanying affidavit of a criminalist at the Boston police department crime laboratory, whether blood from the person and clothing of the defendant, and from a hammer that was in his possession, was that of the defendant or of the victim, would be probative of the defendant's presence and participation, or lack thereof, in the crime. Evidence of a mixture of blood from two sources, the victim's and the defendant's, was not necessary in light of all the evidence before the grand jury.

The defendant states that a determination, that the blood on his hammer was his blood, would not aid the investigation because "the grand jury knew that [the defendant] worked with tools." The defendant claims that a blood sample from him would be completely useless. The defendant, however, overlooks the utility in the investigation of excluding him as the source of blood found on his person and clothing (essentially, that

evidence would negate any claim of the defendant that he was not present at the murder). There was no error.

We conclude that no substantial likelihood of a miscarriage of justice occurred based on defects in the form of the grand jury's petition. See Commonwealth v. Williams, supra at 684-685. The defendant waived the requirements of having the petition signed by the foreperson under oath and, alternatively, having a supporting affidavit from the prosecutor or a member of the grand jury, by failing to object to these particular defects. See id. at 684. These defects were "of no substance and could readily have been remedied if timely raised." Id. at 685.

Contrary to the defendant's contention, the judge entered a brief order authorizing the extraction of the blood sample. The omission in his order of findings specific to the considerations noted in Commonwealth v. Williams, supra at 685, is of no concern because his order was preceded by an adversary hearing and the record supports the order authorizing the extraction of the defendant's blood. See id. at 685-686.

2. Before trial, the Commonwealth notified the defendant's trial counsel that it intended to call an expert witness (Ziolkowski) to testify on the subject of blood spatter evidence and, in particular, to testify that the blood spatter evidence was consistent with the victim having been killed while seated in the recliner. This evidence would refute the defendant's statement to police that he found the victim's body on the basement floor and merely moved him to the recliner. The

defendant's trial counsel filed a motion either to exclude the blood spatter evidence or to hold a hearing pursuant to Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993) (Daubert), and Commonwealth v. Lanigan, 419 Mass. 15 (1994) (Lanigan), on the basis that the Commonwealth could not establish that the blood spatter evidence is reliable. After the trial commenced, the judge conducted a Daubert-Lanigan hearing outside of the jury's presence to consider the issue. Ziolkowski testified for the Commonwealth. The defendant produced no witnesses. The judge concluded, at the end of the hearing, that the evidence was reliable and therefore admissible.

We review the judge's decision for an abuse of discretion. See Commonwealth v. Patterson, 445 Mass. 626, 639 (2005). In Lanigan, supra at 25-26, we adopted, in part, the new Daubert standard, which set forth five factors that a judge should consider in determining the reliability of proposed scientific evidence. The five factors are whether the scientific theory or process (1) has been generally accepted in the relevant scientific community; (2) has been, or can be, subjected to testing; (3) has been subjected to peer review and publication; (4) has an unacceptably high known or potential rate of error; and (5) is governed by recognized standards. Daubert, supra at 593-594. See Commonwealth v. Patterson, supra at 635-636. "Lanigan's progeny make clear that general acceptance in the relevant community of the theory and process on which an expert's testimony is based, on its own, continues to be sufficient to

establish the requisite reliability for admission in Massachusetts courts regardless of other Daubert factors." Id. at 640, and cases cited. "Where general acceptance is not established by the party offering the expert testimony, a full Daubert analysis provides an alternate method of establishing reliability." Id. at 641.

Before addressing the defendant's arguments, we point out the explanations made by Ziolkowski. According to Ziolkowski, bloodstain analysis is a forensic tool in which stains of blood at a crime scene, or "bloodshed event," are examined and provide relevant information. The analysis is based on scientific principles of physics and mathematics. It involves examining the pattern or characteristics that a drop of blood exhibits after being deposited on a substrate, or surface. The analysis includes examination of the size and shape of the blood spot, the substrate involved, indications of directionality, and the presence of any pattern of spots.

Ziolkowski stated that the analysis also can indicate the "source of the blood," or the "origin" of the blood that created the stain. That is done by determining the angle at which the bloodstain was deposited. A mathematical equation, determining the arc sine of the width over the length of the bloodstain, is used to compute the angle. Ziolkowski further testified that the "string method" is one method used to determine the origin of the blood that created the stain. The method is applied when there is a "group" of bloodstains and involves first using the

mathematical equation above noted. Then, in accordance with the measurements and angles in the mathematical equation, strings are put through "the central axis, the long axis of the [blood] spot," and collectively indicate the origin of the blood.

Because both bloodstain analysis and the use of the string method to determine the area of origin of bloodstains are generally accepted by a sufficiently broad community of experts, we affirm the judge's conclusion finding this evidence reliable. Courts in other jurisdictions have found bloodstain analysis reliable. See Commonwealth v. Mendes, 406 Mass. 201, 205 (1989) (in determining the validity of scientific methods, court may look to opinions of other courts). See also Holmes v. State, 135 S.W.3d 178, 190-195 (Tex. Ct. App. 2004), and cases cited (noting that courts in Idaho, Illinois, Indiana, Michigan, Minnesota, New York, North Carolina, Oklahoma, Tennessee, and Virginia have rejected challenges to the reliability of bloodstain analysis, and that no court has found this type of evidence to be unreliable).⁹

We reject the defendant's challenge to the relevant scientific community. Ziolkowski defined the relevant scientific community as pathologists, medical examiners, crime laboratory personnel, police officers, and attorneys practicing criminal law. In addition, she discussed the involvement of many other

⁹ Not all courts have required proof that bloodstain analysis is reliable. See, e.g., Holmes v. State, 135 S.W.3d 178, 195 (Tex. Ct. App. 2004) (taking judicial notice of validity of bloodstain analysis).

forensic scientists in the study, experimentation, and publication of bloodstain analysis. Thus, as required, the community was sufficiently broad to permit the potential for dissent. See Commonwealth v. Patterson, supra at 643. The fact that Ziolkowski did not specifically identify one particular scientist who has been critical of the string method does not alter our conclusion. See Lanigan, supra at 27 ("Unanimity of opinion among the relevant scientists is not essential even under the general acceptance test").

Acknowledging that Ziolkowski testified that bloodstain analysis is generally accepted within the relevant scientific community, the defendant argues that general acceptance cannot be decided without further elaboration and evidentiary support. The defendant reads Ziolkowski's testimony too narrowly. Her conclusion must be read in conjunction with her testimony concerning the existence of education and training programs, and the provision of papers and journal articles, on this subject by various organizations, including the International Association of Bloodstain Pattern Analysts, the American Association of Forensic Scientists, the Northeastern Association of Forensic Scientists, and the International Association of Identification. This testimony provides further support for the conclusion that bloodstain analysis has gained general acceptance.

The defendant contends that the record does not support a conclusion that the string method has been shown to be generally accepted. In support of his contention, he points to the

existence of two other methods of determining the origin of bloodstains, namely, a "tangent" method and a computerized method called "back track." During her testimony, however, Ziolkowski testified that these two other methods existed. Despite the existence of these other methods, however, she explained that there has been no movement in the field to do away with the string method. Ziolkowski's testimony that the string method is repeatedly used in the field, is taught in the classroom, and is used by leaders in the field sufficiently established the general acceptance of the string method within the relevant scientific community.

3. We reject the defendant's contention that there was no basis in the evidence to support Ziolkowski's testimony that a spot of blood near the corners of the defendant's eyes, and a spot of blood on the defendant's hammer, was blood spatter. In support of his argument, the defendant maintains that, pursuant to the expert evidence admitted on the subject, spatter is dependent on the presence of a pattern of drops, and the characterization of a single, isolated spot of blood as spatter "exploits" the concept. The defendant overlooks the totality of the blood evidence that Ziolkowski reviewed. In view of the extensive blood spatter in the victim's apartment and on the defendant's clothing, there was a reasonable basis for Ziolkowski to testify that the spots of blood on the defendant's face and

hammer were likewise spatter.¹⁰ Further, there was nothing in Ziolkowski's testimony indicating that evidence of blood spatter is limited to spots that are formed as part of a pattern. Ziolkowski's testimony concerning patterns of spots was made in the context of determining directionality, that is, determining from a pattern of spots the direction the blood came from. She characterized certain spots of blood as spatter based on their shape and size, and the manner in which they were deposited onto a surface, and not by a pattern or minimum number of spots.

4. The defendant has not made any argument that we should grant him relief pursuant to G. L. c. 278, § 33E. We nonetheless have reviewed the record in keeping with our statutory obligation and conclude that there is no basis to alter the jury's verdict or otherwise grant relief under § 33E.

5. The order allowing the grand jury's petition to take a blood sample from the defendant is affirmed. The defendant's judgment of conviction is affirmed.

So ordered.

¹⁰ The fact that spots of blood on the defendant's face might have resulted from a skin condition such as eczema does not render Ziolkowski's testimony improper and was for the jury to accept or reject.