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SJC-10472

COMMONWEALTH vs. JESUS GAMBORA.

Hampden. April 8, 2010. - September 2, 2010.

Present: Marshall, C.J. Ireland, Spina, Cordy, & Botsford, JJ.

Evidence, Scientific test, Fingerprints, Expert opinion, Inference, Relevancy and materiality. Constitutional Law, Jury. Practice, Criminal, Jury and jurors, Required finding, Indictment, Dismissal, Capital case. Jury and Jurors. Homicide.

Indictments found and returned in the Superior Court Department on June 26, 2003.

The cases were tried before Jeffrey A. Locke, J.

Stewart T. Graham, Jr., for the defendant.
Thomas H. Townsend, Assistant District Attorney, for the Commonwealth.

BOTSFORD, J. A jury convicted the defendant, Jesus Gambora, of murder in the first degree on theories of deliberate premeditation and felony-murder, unlawful possession of a firearm, possession of ammunition without a firearms identification card, and eleven indictments charging armed robbery. Prior to sentencing, the judge dismissed seven of the armed robbery counts as duplicative. The defendant appeals, claiming (1) fingerprint evidence linking him to the crime scene was not sufficiently reliable to warrant its admission; (2) it was error to admit evidence of a shoe print found at the scene; (3) it was error to excuse a juror for cause; (4) there was

insufficient evidence of deliberate premeditation; and (5) the indictment did not provide notice of felony murder. Finally, the defendant asks us, pursuant to G. L. c. 278, § 33E, to reduce the degree of guilt or order a new trial. We affirm the convictions and decline to grant relief under G. L. c. 278, § 33E.

Background. The evidence would have warranted the jury in finding the following. Ray Desai and Jaya Desai, the victim, owned and operated two West Springfield hotels, the Rodeway Inn and the Ramada Limited. The Desais lived with their sons Ajay and Sandip¹ in an apartment connected to the Rodeway Inn office. On April 18, 2003, Ajay was working in that office. Around 10 P.M., a Ramada Limited desk clerk, Robert Flaherty, delivered a bank bag containing the day's cash receipts and approximately \$450 in cash. Ajay brought the bank bag through a door behind the front desk into his family's apartment and set it down on stairs that led from the living room to upstairs bedrooms where his wife and two children of family friends were sleeping.

Shortly thereafter, another family friend, Azam Rabbani, arrived to work the 10 P.M. to 5 A.M. shift at the Rodeway Inn front desk. Before starting work, Rabbani walked through the same door into the Desais' living room and sat down on the couch to talk with Ajay. Suddenly, the two men heard a noise coming from the office. Ajay noticed motion on a security monitor and, when he gave a closer look, saw two men jumping over the front desk. Rabbani started toward the door to the office and one of the intruders came through the door into the living room, put a gun against Rabbani's neck and forced him to the floor. The

¹ Because the last name, Desai, is common to all the family members, we use their first names for clarity.

gunman then did the same to Ajay, telling Ajay not to look at him. Rabbani heard the two intruders demanding money and noticed their Spanish accents (although they were speaking in English). One of the men asked, "Where's the safe?" Ajay pleaded with the gunman not to hurt anyone, telling him that he would give him whatever he wanted.

Sandip, still upstairs in the family quarters but hearing the noise and commotion, ran to the top of the stairs on the second floor. He saw the gunman running toward him and retreated, directing his father to dial 911. When Sandip returned to the top of the stairs, he saw his mother, Jaya, at the bottom of the stairs, screaming, "Get out of the house." Ajay and Sandip each heard two gunshots and saw Jaya fall. One bullet struck Jaya in the chest, penetrating her heart and left lung and causing the massive bleeding that led to her death. A second bullet struck an electrical box on the wall, knocking out some of the lights.

Ajay tried to go to his mother, but the gunman stopped him and again demanded, "Where is the money?" Ajay directed him to the bank bag on the stairs. Sandip heard the exchange and saw that the two intruders were confused. He, too, pointed them to the bank bag and said, "You just shot my mother, take whatever you want and leave now. Leave now. You shot my mother." The gunman told Sandip to "shut up" or he would "cap his ass, too."

The gunman then demanded the security surveillance tape. Sandip ran to the surveillance equipment and tried unsuccessfully to eject the tape. As Sandip was explaining that the machine would not work, he stood about five feet away from the gunman and got a "good look" at him. The gunman told Sandip, "[D]on't look

at me or I'll kill you." The gunman ripped the entire surveillance unit from the wall and the intruders fled with it. Ajay and Sandip ran to their mother, who was barely breathing. Ajay stayed with her until paramedics and police arrived. Sandip ran back upstairs and again telephoned 911.

External surveillance videotape obtained from a neighboring business showed a car with front quarter panels that differed in color from the rest of the automobile pull into the Rodeway Inn parking lot at 10:14 P.M.² and leave at 10:18 P.M. Police received a radio call around 10:21 P.M. and arrived at the scene shortly thereafter. Paramedics transported Jaya to Baystate Medical Center where she was pronounced dead from the gunshot wounds.

Police secured the scene. In addition to the bank bag and surveillance equipment that were taken, Rabbani was missing his wallet and three keys on a ring attached to an "Azam" nametag; Ajay was missing a computer bag containing a computer, a "Palm Pilot" device, and computer discs; and Sandip was missing his wallet. In searching the parking lot outside the Rodeway Inn that night, Officer Brian Duffy found the faceplate of the missing surveillance equipment and also observed a footprint in the dirt. Police photographed and made a stone casting of the footprint. State police Detective Lieutenant John Drawec noticed a "herringbone pattern type of impression commonly seen on the bottom of a shoe" on the front desk, which he tried to photograph and preserve, but was unable to do so successfully. Police

² The time on the video was 9:14 P.M., but the jury heard testimony that the actual time was 10:14 P.M. when adjusted to reflect daylight savings time.

"lifted" twenty-nine fingerprints from the interior of the Rodeway Inn, as well as prints from the door pull leading into the office.

Ajay described the gunman as wearing a hat backward and a gray "hoodie" sweatshirt, adding that he had a Spanish accent and distinctive eyes. Sandip described the gunman as a young, Hispanic male wearing a backward baseball cap with alternating red and white panels and a sweatshirt. Sandip, too, noted the gunman's distinctive, light-colored eyes. When police showed Ajay and Sandip a photographic array that included a photograph of the defendant, neither made a positive identification. Sandip did identify the defendant's photograph as having "similar eyes" to the gunman.

On April 20, two days after the murder, State Trooper Christopher Barons stopped a 1990 Acura automobile driven by the defendant. The front quarter panels differed in color from the rest of the car. Barons asked the defendant for his driver's license and registration. The defendant replied that he had no license, that the car was unregistered, and that he had purchased it a couple of days earlier. The defendant was arrested, and the Acura was towed. At the time he was stopped, the defendant wore a red and white paneled baseball cap. Police subsequently searched the Acura pursuant to a warrant and found five keys on an "Azam" key chain in the center console and a piece of adding machine tape in the passenger door side pocket that Flaherty later identified as a receipt from the Ramada Limited that he had placed in the bank bag on April 18. On April 23, Rabbani identified the "Azam" key ring and his three keys. He told police, however, that two keys on a smaller separate ring that

had been attached to the key ring did not belong to him.

At the police station, the defendant stated that his address was 182 Nursery Street, unit 2L, in Springfield. The police obtained and executed a warrant to search that residence. In a bedroom closet where the officers conducting the search found health care membership cards and other papers bearing the defendant's name and photographs of him, they also located two pairs of sneakers, one size nine and one size nine and one-half.³ According to State police Detective Lieutenant Brian O'Hara who testified as an expert witness on footwear impressions, the left shoe that was part of the pair of size nine sneakers corresponded in manufacturing design, shape, and size to the footprint found in the Rodeway Inn parking lot.

The defendant testified to the following. On April 18, 2003, he went to a "strip club" with his friend, Willie Watkins, where he drank heavily and used heroin. He left the club and got in a car that Watkins was driving. They stopped to pick up another man, whom the defendant knew as "Pistol Pete." The defendant and Watkins had planned to go to a motel to have some drinks, but, "[d]runk and high," the defendant passed out on the way. When he woke up, he was alone in the car. The defendant believed his companions had gone to rent a room, so he got out of the car and walked toward the lobby. As he opened the front door, Watkins and Pistol Pete ran out, so he ran with them back

³ Defense counsel objected to the admission of the sneakers on foundational and relevance grounds. The judge accepted the evidence de bene, anticipating that a later witness would match the sneakers by size, style, and design to the foot impression found at the scene. The defendant did not challenge their admission thereafter.

to the car. He had not known that Pistol Pete was armed, but once they were back in the car, he saw Pistol Pete waving a gun. Watkins told him that Pistol Pete had shot a woman. The defendant became angry and told his companions that he wanted to go his own way, but then opted to stay with them while they disposed of the security camera and the gun in a river because he was afraid of Pistol Pete, who had threatened him and his family.

The defendant further testified that the pairs of size nine and size nine and one-half sneakers that the police found in the closet at 182 Nursery Street did not belong to him and would not fit him because he wore a size ten. He was not staying with his family at 182 Nursery Street at the time of the murder, but rather, was staying with his girl friend at her apartment. He admitted to wearing the red and white paneled baseball cap when police pulled him over on April 20, explaining that one of his companions must have left it in the car. According to the defendant, the Acura automobile previously had belonged to Watkins. The defendant acknowledged that it was the car depicted in the surveillance footage and that he bought the Acura even though he knew that it had been used in a murder. The defendant also stated that, in April, 2003, he was using approximately seven to ten bags of heroin a day. He was working for a contractor named "Jose" at the time, but had no pay stubs to support that assertion.⁴

Discussion. 1. Fingerprint evidence. The defendant first challenges the admission of testimony from two expert witnesses, both State police detective lieutenants, identifying or

⁴ We discuss additional facts in connection with the issues raised.

"individualiz[ing]"⁵ two latent fingerprints⁶ found on a door pull at the crime scene to the defendant. His claim is that the evidence of fingerprint identification, and particularly evidence that a latent print could be "individualized" to a particular person, was inadmissible under Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993) (Daubert), and Commonwealth v. Lanigan, 419 Mass. 15 (1994) (Lanigan), because its underlying scientific or technical reliability had not been established, and indeed, has been shown to have no currently demonstrable scientific or technical basis.

a. Additional background. The defendant filed a motion in limine before trial in which he sought to exclude all fingerprint evidence on the grounds that the Commonwealth could not demonstrate its reliability or scientific validity pursuant to Daubert, supra, and Lanigan, supra. Arguing the motion the morning before jury empanelment began, the defendant's trial counsel took specific issue with the proposition that the Commonwealth's proffered experts could definitively individualize a latent print to one particular person. The judge characterized the motion as a general challenge to the reliability of a fingerprint individualization method known as ACE-V, an acronym that stands for the four steps in the method's process:

⁵ The term "individualization," in the context of examination of a piece of evidence such as a fingerprint, means a conclusion by the examiner that the particular evidence comes from "a single unambiguous source." National Research Council, Strengthening Forensic Science in the United States, A Path Forward, 136 (2009) (NAS [National Academy of Sciences] Report). See id. at 141-142.

⁶ "Latent fingerprints are fingerprint impressions that are not visible to the naked eye without chemical enhancement." Commonwealth v. Patterson, 445 Mass. 626, 629 (2005) (Patterson).

analysis, comparison, evaluation, and verification. The judge denied the motion without a hearing, ruling that the ACE-V methodology was "generally accepted within the . . . fingerprint-examiner community," and citing Commonwealth v. Patterson, 445 Mass. 626 (2005) (Patterson), a case in which this court concluded that "[c]onsistent with the decisions of other courts that have considered the issue since Daubert, . . . the underlying theory and process of latent fingerprint identification, and the ACE-V methodology in particular, are sufficiently reliable to admit expert opinion testimony regarding the matching of a latent impression with a full fingerprint." Id. at 628.⁷

⁷ In Patterson, we reviewed a decision by a judge in the Superior Court denying a motion of the defendant to exclude fingerprint evidence at a retrial on an indictment charging him with murder in the first degree. Patterson, 445 Mass. at 627-628, 635-638. The motion judge had conducted a five-day evidentiary hearing to consider the defendant's challenge to the admissibility of that evidence under Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993) (Daubert), and Commonwealth v. Lanigan, 419 Mass. 15 (1994) (Lanigan), and had ruled, in a supplemental order, that the Commonwealth's evidence identifying the defendant as the person who left the simultaneous fingerprint impressions at issue was sufficiently reliable to satisfy the Daubert-Lanigan standards, and would be admissible at the retrial. Patterson, supra at 638. In our decision, we noted 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 [under Daubert and Lanigan]." Id. at 640. We then concluded that the definition adopted by the motion judge of the "relevant community" as the fingerprint examiner community was appropriate, id. at 643-644, and further that the judge had acted well within her discretion in determining that both the latent print identification theory and the ACE-V process of identification were generally accepted in the fingerprint examiner community. Id. at 641, 642. We further concluded, however, that while this theory and process were generally reliable and reliable in the context of single latent print impressions, id. at 644, 654-655, the Commonwealth had not established, on the record before the motion judge, the

At trial, Detective Lieutenant Drawec -- whom the defendant stipulated was a fingerprint examination and comparison expert -- testified first concerning the various fingerprints the police had collected from inside the Rodeway Inn lobby or office as well as the Acura in which the defendant had been stopped, and explained that the police had obtained sets of exemplar fingerprints from essentially all the individuals connected to the case, including the defendant. In testifying about fingerprints recovered from a juice bottle in the Acura, Drawec stated that the prints had been "individualized" to a Samantha Rivera, and defined the word "individualized" as meaning "to the exclusion of all others." Drawec then testified concerning three latent prints that the police had recovered from a door pull on a door leading from the exterior of the Rodeway Inn into the lobby. He described the ACE-V methodology and explained that he used it to compare these three latent prints to the exemplar prints taken from the defendant. The defendant renewed his objection raised in the motion in limine to any evidence concerning this comparison, and specifically "to any conclusion that [Drawec is] going to say that's absolutely [the defendant's], that [Drawec] can exclude anybody else in the whole wide world, no fingerprints are alike." The judge overruled the objection. Drawec continued, and told the jury that he "individualized" two of the latent prints to the defendant's right index and middle fingers, respectively, but that the third latent print lacked sufficient clarity to be evaluated. He then went over the specific points

necessary reliability of either theory or process as applied to simultaneous impressions. Id. at 655. Accordingly, we vacated the judge's supplemental order denying the motion to exclude the evidence relating to those impressions. Id. at 655.

of comparison on which he had relied in making the individualizations. On cross-examination, defense counsel asked:

"Now when you testify and draw conclusions that there is an absolute certainty that there's a match, you never testify to statistics, to odds, or to probabilities when, for example, when a DNA [deoxyribonucleic acid] person makes a comparison they may say it's a one in one billion chance that it is that person, the odds are pretty great, but they say it's one in one billion.

"When you make an opinion, you don't talk in terms of probability, at all, you just say it is for sure, for certain, that's a print; correct?"

Drawec answered, "That's correct." Defense counsel went on to question Drawec about errors that have been made in the field of fingerprint identification, and Drawec acknowledged that he was "aware of some errors being made." See note 18, *infra*.

Detective Lieutenant O'Hara⁸ then testified that he had "verified" Drawec's two individualizations by conducting his own comparison of the latent prints to the defendant's known prints. He, too, described the ACE-V methodology and testified that based on its application to the prints at issue and his education, training, and experience, his opinion was that the defendant's right index and middle fingers "made" two of the latent prints on the door pull. The defendant did not object to O'Hara's testimony.

b. Standard of review. Because the defendant raised this claim before trial through a motion in limine and again at trial during the testimony of Detective Lieutenant Drawec, the asserted error is preserved.⁹ See Commonwealth v. Flebotte, 417 Mass.

⁸ Detective Lieutenant O'Hara testified that he had retired from the State police in 2005.

⁹ As indicated, the defendant did not object to O'Hara's testimony concerning the fingerprint identification. However, we

348, 351, 353 (1994). Accordingly, we review to determine whether any error was nonprejudicial in the sense that we are sure "that the error did not influence the jury, or had but very slight effect." Id. at 353, quoting Commonwealth v. Peruzzi, 15 Mass. App. Ct. 437, 445 (1983).

c. Discussion. The challenged fingerprint evidence in this case concerns the identification of single latent prints. In light of our decision in Patterson (see note 7, supra, and accompanying text) -- a decision issued approximately three months before the trial in this case -- the trial judge's denial of the defendant's motion in limine concerning the evidence, and his subsequent overruling of the defendant's objection to that evidence at trial, were to be expected. The defendant contends, however, that subsequent to the Patterson decision, a report published in 2009 by the National Research Council for the National Academy of Sciences (NAS) has called into more serious question the reliability of both the latent print identification theory and the ACE-V methodology.¹⁰ See National Research Council, Strengthening Forensic Science in the United States, A Path Forward 102-104, 136-145 (2009) (NAS Report). The defendant urges us to reexamine and to limit the scope of Patterson,

review the defendant's claim on this issue under the preserved error standard rather than for substantial likelihood of a miscarriage of justice because it was clear at trial that Drawec was the Commonwealth's principal expert witness on fingerprint identification, and the defendant did object to Drawec's testimony. Thus, Drawec was the fingerprint examiner who had been responsible for performing the identification analysis using the ACE-V methodology in the first instance; O'Hara's role was solely to perform the "verification" step of the ACE-V process.

¹⁰ The defendant did not challenge in his motion in limine the application of the ACE-V methodology in this particular case, and does not challenge it here.

arguing that general acceptance in the fingerprint examiner community cannot provide a basis for admissibility where the entire discipline of that community is challenged. He claims that admission of the fingerprint identification, or "individualization," testimony was prejudicial error, and that his convictions should be reversed.

The NAS Report raises a number of questions about the reliability of certain aspects of the ACE-V methodology and expert testimony based on it. The report does not appear to question the underlying theory which grounds fingerprint identification evidence; as the report states, there is scientific evidence supporting the theory that fingerprints are unique to each person and do not change over a person's life. NAS Report at 143-144 & n.34. See Patterson, 445 Mass. at 629 ("underlying premise" of fingerprint individualization "is the uniqueness and permanence of human friction ridge arrangements"). However, the NAS report adds, "[u]niqueness and persistence are necessary conditions for friction ridge identification [i.e., fingerprint identification] to be feasible, but those conditions do not . . . guarantee that prints from two different people are always sufficiently different that they cannot be confused, or that two impressions made by the same finger will also be sufficiently similar to be discerned as coming from the same source." NAS Report at 144.¹¹

¹¹ The NAS Report goes on to suggest the need for research in a number of areas, including "ridge flow" and "crease pattern" distributions within various populations, and the "discriminating value" of certain types of ridge formations that, among other benefits, could lead to the development of statistical models to give "match" probabilities based on population distributions of particular ridge characteristics and "provide the courts with

The NAS Report does not conclude that fingerprint evidence is so unreliable that courts should no longer admit it. The report does, however, stress the subjective nature of the judgments that must be made by the fingerprint examiner at every step of the ACE-V process, including an examiner's ultimate conclusion that a latent print is "individualized" to a specific, identified, known print.¹² NAS Report at 139, 141. One result of the subjectivity, according to the report, is that "the outcome of a friction ridge analysis is not necessarily repeatable from examiner to examiner." NAS Report at 139. The report also points to the related issue of unintentional examiner bias.¹³ The report summarizes its views of the ACE-V methodology

additional information to consider when evaluating the reliability of the science." NAS Report at 142, 144. The report also suggests that there is "considerable room for research on the various factors that affect the quality of latent prints (e.g., condition of the skin, residue, mechanics of touch). . . . A criticism of the latent print community is that the examiners can too easily explain a 'difference' as an 'acceptable distortion' in order to make an identification." Id. at 145.

¹² See Patterson, 445 Mass. at 630 ("In the evaluation stage [of the ACE-V process] . . . the examiner relies on his subjective judgment to determine whether the quality and quantity of those similarities are sufficient to make an identification, an exclusion, or neither").

¹³ See NAS Report at 123 & n.14, 139, citing Dror, Why Experts Make Errors, 56 J. Forensic Identification 600-616 (2006) (describing study showing that "experienced [fingerprint] examiners do not necessarily agree with even their own past conclusions when the examination is presented in a different context some time later," where the "different context" consisted of examiners being given "contextual" biasing information about the suspect. Although the NAS Report does not focus on the point, this type of contextual cognitive bias also may affect the final, "verification" stage of the ACE-V process, where a second fingerprint examiner repeats the first three steps (analysis, comparison, evaluation), because the second examiner may be aware of the first examiner's conclusion of "match," and the suspect's identity. See Patterson, 445 Mass. at 631-632.

as follows:

"ACE-V provides a broadly stated framework for conducting friction ridge analyses. However, this framework is not specific enough to qualify as a validated method for this type of analysis. ACE-V does not guard against bias; it is too broad to ensure repeatability and transparency; and does not guarantee that two analysts following it will obtain the same results. For these reasons, merely following the steps of ACE-V does not imply that one is proceeding in a scientific manner or producing reliable results."

Id. at 142. At the same time, the report notes that

"[h]istorically, friction ridge analysis has served as a valuable tool, both to identify the guilty and to exclude the innocent."

Id. Ultimately, the report focuses on the need to prevent overstatement of the accuracy of fingerprint comparisons,¹⁴ and for additional research.¹⁵

¹⁴ The NAS Report is critical of claims by those in the fingerprint examination community of absolute, essentially infallible certainty that a particular latent print belongs to a particular person:

"At present, fingerprint examiners typically testify in the language of absolute certainty. Both the conceptual foundations and the professional norms of latent fingerprinting prohibit experts from testifying to identification unless they believe themselves certain that they have made a correct match. . . . Given the general lack of validity testing for fingerprinting; the relative dearth of difficult proficiency tests; the lack of a statistically valid model of fingerprinting; and the lack of validated standards for declaring a match, such claims of absolute, certain confidence in identification are unjustified
"

NAS Report at 142, quoting Mnookin, *The Validity of Latent Fingerprint Identification: Confessions of a Fingerprinting Moderate*, 7 *Law, Probability & Risk* 127, 139 (2008).

¹⁵ With respect to research, the NAS Report makes several recommendations for improving the ACE-V process, some of which we have described previously. See note 11, *supra*. In addition, the report recommends better contemporaneous documentation of each step of the process by the examiner performing it, and further research into error rates. On error rates, the report states:

As this court did in Patterson, courts historically have found fingerprint identification evidence to be admissible.¹⁶ We recognize, however, that the issues highlighted in the NAS report

"Error rate is a much more difficult challenge [than documentation]. Errors can occur with any judgment-based method, especially when the factors that lead to the ultimate judgment are not documented. Some in the latent print community argue that the [ACE-V] method itself, if followed correctly (i.e., by well-trained examiners properly using the method), has a zero error rate. Clearly, this assertion is unrealistic, and, moreover, it does not lead to a process of method improvement. The method, and the performance of those who use it, are inextricably linked, and both involve multiple sources of error (e.g., errors in executing the process steps, as well as errors in human judgment)."

NAS Report at 143.

¹⁶ For recent cases from other jurisdictions, see, e.g., United States v. Pena, 586 F.3d 105, 111 (1st Cir. 2009), cert. denied, 130 S. Ct. 1919 (2010) (no abuse of discretion where "district court decides to admit expert testimony that relies on the ACE-V method"); United States v. Baines, 573 F.3d 979, 990 (10th Cir. 2009) ("[W]hile we must agree with defendant that this record does not show that the [ACE-V] technique has been subject to testing that would meet all of the standards of science, it would be unrealistic in the extreme for us to ignore the countervailing evidence. Fingerprint identification has been used extensively by law enforcement agencies all over the world for almost a century"). Both of these cases were decided after the date of the NAS report, but the report was not mentioned.

Some recent cases have cited and discussed the NAS Report, and have continued to find fingerprint evidence admissible. See Johnston v. State, 27 So. 3d 11, 21 (Fla. 2010) (NAS Report "lacks the specificity that would justify a conclusion that it provides a basis to find the forensic evidence admitted at trial to be infirm"). See also United States v. Rose, 672 F. Supp. 2d 723, 726 (D. Md. 2009) (despite NAS Report, "fingerprint identification evidence based on the ACE-V methodology is generally accepted in the relevant scientific community, has a very low incidence of erroneous misidentifications, and is sufficiently reliable to be admissible under [Fed. R. Evid.] 702").

are important, and deserve consideration.¹⁷ Nevertheless, we do not undertake such consideration in this case. The NAS Report accepts as "plausible" the proposition that "a careful comparison of two impressions can accurately discern whether or not they had a common source." NAS Report at 142. Our review of the trial testimony suggests that Lieutenant Drawec did conduct a careful comparison of the latent prints to the defendant's exemplars. Further, as indicated, one of the issues about which the NAS Report is most critical is the a claim that a fingerprint examiner can state with absolute certainty that a particular latent print matches a known print, and that fingerprint comparisons conducted according to the ACE-V methodology are essentially error free. See *id.* at 141-143. In the present case, neither fingerprint expert made such a claim, and the cross-examination by defense counsel emphasized the point.¹⁸

¹⁷ There is merit in the point made in the NAS Report and subsequent scholarly commentary that the fact that judicial decisions for more than one century have allowed this evidence does not, by itself, confirm its reliability. See NAS Report at 104, 107-109. See also Cole, Who Speaks for Science? A Response to the National Academy of Sciences Report on Forensic Science, 9 Law, Probability & Risk 25, 30 (2010) ("judicial opinions themselves came to proxy for the very validation studies whose absence was being debated When asked for evidence of the reliability of latent print identification, prosecutors, and even courts themselves, tended to point to court opinions rather than empirical data or studies").

¹⁸ Defense counsel cross-examined Lieutenant Drawec about the ACE-V methodology, as follows:

Q.: "You are aware of mistakes being made?"

A.: "Yes, I am."

Q.: "The wrong people being charged?"

A.: "Yes, I am."

Even if we were to assume that it was error to permit Detective Lieutenant Drawec to testify that "individualization" of a latent print to a known print means that the prints came from the same source "to the exclusion of all others" and then to testify that he "individualized" two of the latent prints on the door pull to the defendant,¹⁹ the assumed error was harmless in the circumstances of this case for a number of reasons.

First, and most significantly, the defendant himself testified at trial that he put his hand on the door pull in question as he approached and began to enter the Rodeway Inn after his friends had left him in the car; evidence of the fingerprints corroborated this testimony.²⁰ In addition,

Q.: "Being held?"

A.: "Yes, sir."

Q.: "So your field is not perfect?"

A.: "Humans are not perfect, sir."

Q.: "Thank you. In reality, your discipline is actually very subjective in the sense that it is up to the individual examiner to sort of say, 'yeah, it is, or it isn't correct?'"

A.: "Yes."

¹⁹ The assumed error here is that the witness's definition and use of the term "individualize" may have suggested absolute certainty when there is not a scientific basis to do so, see note 14, supra, and that Drawec testified to his "individualization" more as a matter of fact than of opinion.

²⁰ Pointing to the opening statement of his trial counsel, the defendant claims that the judge's determination at trial to permit admission of the fingerprint evidence compelled him to change the thrust of his defense mid-trial, and in particular forced him to testify in order to explain the prints found on the door pull. This claim has no merit. Defense counsel did state in his opening, "There will be no evidence presented to you that [the defendant] was present that evening." However, the

substantial other evidence connected the defendant to the scene of the robbery and homicide that occurred on April 18, 2003.²¹ This is a case, in sum, where the evidence linking the defendant to the crime was very strong, and one where we can say that any error in the admission of the fingerprint evidence "did not influence the jury, or had but very slight effect." Commonwealth v. Flebotte, 417 Mass. at 353, quoting Commonwealth v. Peruzzi, 15 Mass. App. Ct. 437, 445 (1983).²²

defendant cannot realistically argue that this statement means that trial counsel was not aware that the fingerprint evidence would be admitted, given that counsel had filed and had argued just before the start of the trial a substantial motion in limine seeking the exclusion of the fingerprint evidence, and was informed by the judge from the bench that the motion was denied; and that the prosecutor had just opened and had specifically mentioned the fingerprint evidence. In the circumstances, it is reasonably clear that the defendant's trial counsel was stating that there would be no direct evidence from an eyewitness tying the defendant to the crime. In any event, as indicated in note 21, infra, there was ample evidence unrelated to the fingerprints that linked the defendant to the scene of the crime and that might have persuaded him to testify.

²¹ For example, when he was stopped by the police two days after the homicide, the defendant was driving an Acura with different color front quarter panels similar to the one that the surveillance videotape showed as having spent four minutes in the Rodeway Inn parking lot at the time of the homicide; the defendant was wearing a baseball cap with alternating red and white panels similar to the cap that Sandip Desai described as the one he saw the gunman wearing; and the police found in the car the key ring taken from Azam Rabbani as well as the adding machine tape from the Desais' other hotel that Robert Flaherty had delivered on the night of April 18 to the Rodeway Inn. Further, the shoe print police located in the dirt outside the Rodeway Inn on April 18 was consistent in size, shape, and manufacturing design to a sneaker that police later found in a room of the defendant's mother's home where items belonging to the defendant were also found.

²² As our discussion of the NAS Report reflects, there is tension in the report between its assessments that, on the one hand, "it seems plausible that a careful comparison of two impressions can accurately discern whether or not they had a

2. Shoe print evidence. The defendant next argues that the judge erred by allowing Detective Lieutenant O'Hara to testify, over objection, that a sneaker seized from 182 Nursery Street corresponded in manufacturing design, shape, and size to the shoe print police found and casted in the Rodeway Inn parking lot; his argument is that the Commonwealth did not establish the necessary prerequisite of relevance because it failed to show that the sneaker belonged to the defendant, noting the defendant's own testimony that he wore a size ten.²³ We disagree.

common source," NAS Report at 142; but that, on the other, "merely following the steps of ACE-V does not imply that one is proceeding in a scientific manner or producing reliable results." Id. We are not able to resolve that tension at this time, as the dialogue in the relevant community appears to be a continuing one, see NAS Report at 144-145 & n.37, but nothing in this opinion should be read to suggest that the existence of the NAS Report alone will require the conduct of Daubert-Lanigan hearings as to the general reliability of expert opinions concerning fingerprint identifications. However, based on the NAS Report, we can say this much at the present time: Testimony to the effect that a latent print matches, or is "individualized" to, a known print, if it is to be offered, should be presented as an opinion, not a fact, and opinions expressing absolute certainty about, or the infallibility of, an "individualization" of a print should be avoided. See notes 14 and 19, supra. We further note two additional matters discussed in the NAS Report. First, the report points out that the quality of the prints under examination is critical to the reliability of any identification opinion that may be proffered, see NAS Report at 87, 140. Second, the report highlights the importance of the training, experience, and skill of the particular fingerprint examiner. See id. at 137-138, 140. These matters go more to the application of the ACE-V methodology in a particular case than to the reliability of the method itself, but going forward, they are important to keep in mind.

²³ There is no argument by the defendant that Lieutenant O'Hara's opinion testimony concerning the correspondence between the seized sneaker and the shoe print at the Rodeway Inn lacked the requisite degree of scientific or technical reliability for admission. See NAS Report at 145-150 (discussing pattern or "impression" evidence, including shoe prints).

Police seized the sneaker (along with its mate and another pair) from a closet in a bedroom at the defendant's mother's home -- a room where the police also found personal papers bearing the defendant's name and photographs of him. This evidence warranted an inference that the sneaker belonged to the defendant, and therefore made it relevant. See Mass. G. Evid. §§ 401, 402 (2010). Cf. Commonwealth v. Boria, 440 Mass. 416, 420 (2003), quoting Commonwealth v. Pratt, 407 Mass. 647, 652 (1990) ("proximity to a defendant's personal effects may provide a link between a defendant and . . . contraband, if other evidence shows that 'the defendant has a particular relationship' to that location within the apartment" [emphasis in original]); Commonwealth v. Washington, 50 Mass. App. Ct. 167, 168-169 (2000) ("jury could have found . . . that the defendant constructively possessed the cocaine the police recovered from the third-floor bedroom [His] particular connection to the room where the cocaine was discovered may be inferred from the fact that his identification . . . card was found there"). The jury were not required to accept the defendant's assertion that he wore a size ten shoe. There was no error in the admission of O'Hara's testimony concerning the shoe print.²⁴

3. Dismissal of a juror. The defendant claims that the

²⁴ The defendant argues that defense counsel was ineffective insofar as he did not to move to strike the shoe print evidence. As discussed above, the Commonwealth properly established the relevancy of the shoe print evidence and a motion to strike that evidence would have been futile. Thus, defense counsel was not ineffective for declining to file such a motion. See Commonwealth v. Conceicao, 388 Mass. 255, 264 (1983), and cases cited ("It is not ineffective assistance of counsel when trial counsel declines to file a motion with a minimal chance of success").

judge erred in dismissing, during jury empanelment, a seated but unsworn juror. In particular, he contends that the juror's dismissal violated the defendant's right to a representative jury under the Fourteenth Amendment to the United States Constitution and art. 12 of the Massachusetts Declaration of Rights.

The background is the following. At a break during the first day of jury empanelment, a court officer reported to the judge that several court officers had seen the juror in question outside the court room talking to a woman who was not a juror. When the court officer asked the juror to step away and come with him, the woman with whom the juror had been talking walked over and joined a group of people that included members of the defendant's family. Based on his questioning of the juror and then the court officer, the judge found that the juror was not "as forthcoming as she should have been" and that the incident raised a "troubling connection" between the juror and the defendant's family.²⁵ The judge dismissed the juror over the defendant's objection.

"The court shall have the discretionary authority to dismiss a juror at any time in the best interests of justice." G. L. c. 234A, § 39. As "the jury had not yet been sworn . . . the judge had no duty to hold a hearing or find an extreme hardship." Commonwealth v. Young, 73 Mass. App. Ct. 479, 488 (2009), citing G. L. c. 234A, § 39. The defendant's assertion that this

²⁵ More specifically, the judge found that the juror "had communication[s] that she indicated were happen-stance with a sister-in-law who was unconnected in any way to this case, and yet the sister-in-law came from or returned to a group associated with the defendant or his family. And that's something that [the juror] did not disclose and does raise a concern."

dismissal violated his constitutional right to a jury that constituted a representative cross section of the community, see Commonwealth v. Soares, 377 Mass. 461, 479, cert. denied, 444 U.S. 881 (1979), lacks any basis in the record. Absolutely nothing supports the defendant's suggestion in his brief that the judge excluded the juror on account of the fact that she was Hispanic and that there was "some unarticulated or unrecognized bias at work." In any event, the record reflects that the dismissed juror's seat was filled by another Hispanic woman, and two Hispanic jurors sat on the deliberating jury. The judge properly could be concerned, based on the information presented to him, about the possibility of a connection between the juror and the defendant or his family, and appropriately could decide, at the early stages of empanelment, that the risk of such a possibility becoming a reality was not one worth taking. The judge committed no abuse of discretion or other error of law in dismissing the juror. See Commonwealth v. Young, supra.

4. Sufficiency of the evidence. The defendant argues that the judge erred in denying his motion for a required finding of not guilty on the charge of murder in the first degree based on a theory of deliberate premeditation because the jury heard no evidence of the gunman's state of mind. As a corollary, the defendant argues that because the deliberately premeditated murder charge fails, the murder conviction rests solely on a theory of felony-murder, and we therefore must vacate the consecutive sentences imposed on the four underlying armed robbery convictions.

"Because the defendant challenges the sufficiency of the evidence as to one element only -- deliberate premeditation -- we

examine the sufficiency of evidence relevant to that element alone." Commonwealth v. Coleman, 434 Mass. 165, 167 (2001). We thus assess whether, viewing the evidence in the light most favorable to the Commonwealth, any rational jury could have found deliberate premeditation beyond a reasonable doubt. Commonwealth v. Latimore, 378 Mass. 671, 677-678 (1979). Deliberate premeditation means that "the defendant's decision to kill was the product of 'cool reflection.'" Commonwealth v. Coleman, supra, quoting Commonwealth v. Davis, 403 Mass. 575, 582 (1988). We keep in mind that "no particular period of reflection is required, and . . . a plan to murder may be formed in seconds." Commonwealth v. Coleman, supra at 168. The jury heard ample evidence to find that the defendant made a conscious decision to kill Jaya Desai. First, the evidence indicated that the defendant, whom the jury could find was the "gunman," brought the gun to the robbery. Commonwealth v. Williams, 422 Mass. 111, 123 (1996) ("use of a firearm in the killing is sufficient to support a verdict of murder in the first degree based on deliberately premeditated malice aforethought"). See Commonwealth v. Stewart, 398 Mass. 535, 541 (1986). Second, although no one saw the defendant aim, evidence showed that as the victim screamed at the intruders to get out, the defendant fired two shots, one of which penetrated the victim's chest. See Commonwealth v. Coleman, supra at 169 ("placement of the fatal wound, fired at close range into the victim's chest would also support a finding of deliberate premeditation"). Finally, statements the defendant made immediately following the shooting support an inference of deliberate premeditation. Just after the victim was shot, the defendant demanded the security surveillance tape from Sandip and

told him he would "cap his ass, too" (emphasis supplied) if he did not "shut up." The defendant also said to Sandip, "[D]on't look at me or I'll kill you." These statements after the shooting are relevant to the defendant's state of mind prior to the shooting because of the very short time frame in which this sequence of events occurred: four minutes.²⁶ Cf. Commonwealth v. Watkins, 373 Mass. 849, 852 (1977) (defendant's statement after stabbing that he would "kill anyone who came in" room was evidence of deliberate premeditation). For these reasons, we find no error in the judge's decision to deny the defendant's motion for a required finding of not guilty on the charge of murder in the first degree based on a theory of deliberate premeditation.

Turning to the defendant's separate argument that the robbery convictions must be vacated because they are duplicative of the felony-murder conviction, we acknowledge that "[w]hen the possibility exists that a jury may have reached a verdict of murder on the basis of a felony-murder theory, a separate conviction and sentence for the underlying felony cannot stand" (emphasis added). Commonwealth v. Anderson, 425 Mass. 685, 692 (1997). If, as in the Anderson case, a "jury were instructed on murder in the first degree on both deliberate premeditation and felony-murder theories, and the jury returned a general verdict of guilty without specifying under which theory they were convicting the defendant . . . the judgment of conviction of [the underlying felony must] be vacated." Id. However, if a jury

²⁶ The surveillance videotape from the neighboring business indicated that the Acura automobile, in which the men traveled to and from the Rodeway Inn, was only in the parking lot for four minutes.

return a special verdict specifying felony-murder as one of several theories under which they convicted the defendant, the underlying felony remains a distinct crime. Commonwealth v. Raymond, 424 Mass. 382, 396-397 (1997). See Commonwealth v. Pennellatore, 392 Mass. 382, 390-391 (1984). Here, the jury were provided a special verdict, and they specifically found the defendant guilty based on the separate theories of deliberate premeditation and felony-murder. Therefore, we need not vacate the defendant's armed robbery convictions.

5. Sufficiency of the indictment. The defendant's final claim is that the judge erred in denying his motion to dismiss the indictment for murder in the first degree on the ground that it did not specifically allege the elements of felony murder, but rather, charged him simply with an "intentional murder." He argues that the indictment gave him inadequate notice of the crime charged in violation of his rights protected by the Sixth and Fourteenth Amendments to the United States Constitution; in his view, this court's holding that an indictment alleging "the crime of murder in the first degree . . . encompasses all theories of murder in the first degree," Commonwealth v. DePace, 442 Mass. 739, 743-744 (2004), cert. denied, 544 U.S. 980 (2005), is made untenable by the Supreme Court's Sixth Amendment jurisprudence. He reads G. L. c. 265, § 1, to set out a "core crime," i.e., murder in the second degree, and then to specify aggravating circumstances that increase the penalty, much like the statutes at issue in Apprendi v. New Jersey, 530 U.S. 466 (2000), and Jones v. United States, 526 U.S. 227 (1999).

The defendant's claim lacks merit. He waived this argument by filing his motion only after the Commonwealth rested. See

Commonwealth v. Bell, 455 Mass. 408, 412 n.6 (2009). In any case, in DePace, we previously addressed this argument and rejected it. See Commonwealth v. DePace, 442 Mass. at 743 (holding that indictment charging defendant with murder in first degree as encompassing all theories of murder does not offend the ruling in Apprendi because, "conformably with Apprendi, the question of the defendant's guilt as to the murder . . . with extreme atrocity or cruelty . . . was submitted to the jury and proved beyond a reasonable doubt"). Accord Commonwealth v. Morales, 453 Mass. 40, 52 (2009). We decline to reconsider our holding in DePace.

6. G. L. c. 278, § 33E. After our review of the entire record pursuant G. L. c. 278, § 33E, we find no basis on which to grant the defendant relief.

Judgments affirmed.

SPINA, J. (concurring, with whom Ireland, J., joins). I concur with the opinion of the court but write separately to address the question of the form of opinion testimony by a fingerprint expert, raised by the defendant's objection to the testimony of Detective Lieutenant John Drawec. Drawec testified that the latent prints had been "individualized" to the defendant, and that this meant to the exclusion of all others, and that the prints absolutely belonged to the defendant. His testimony was not presented as his opinion that the prints belonged to the defendant. Rather, he indicated that by applying the ACE-V process, the prints were "individualized" to the defendant. By contrast, Detective Lieutenant Brian O'Hara properly testified that in his opinion they belonged to the defendant. The defendant did not object to the form of O'Hara's testimony, presumably because the form of his testimony, i.e., his opinion, was properly expressed. The details are set forth in the court's opinion ante at .

Fingerprint experts should not be permitted to testify in the manner of Detective Lieutenant Drawec because it is not opinion testimony. He implied that the output of the ACE-V process here was an absolutely certain identification. No discipline, much less fingerprint analysis, has ever been shown to produce results that achieve absolute certainty. Although some courts have looked on fingerprint analysis as the gold standard of virtually all science,¹ this view recently has been

¹ See, e.g., Cooper v. Brown, 510 F.3d 870, 959 (9th Cir. 2007) (Appendix A), cert. denied sub nom. Cooper v. Ayers, 130 S. Ct. 749 (2009) ("Unlike fingerprint comparison, an absolute match is not possible when comparing hairs"); People v. Cooper, 53 Cal. 3d 771, 799, cert. denied, 502 U.S. 1016 (1991) (same). See also

criticized by the 2009 report of the National Research Council. See ante at - nn.13, 14.

While we normally leave the humbling of inflated opinions to cross-examination, there is a danger that the mystique of fingerprint identification, which has had a captivating hold on the criminal justice system and society at large for more than one hundred years, is such that cross-examination may not be enough to rectify the effect of a fingerprint expert's use of such terms as "individualized," "absolute," and "match" when testifying, as opposed to presenting the testimony as his or her "opinion" that the latent fingerprints are the defendant's. See Commonwealth v. Banville, ante 530, 540-541 & n.3 (2010).

While the "science" of fingerprint analysis may be valid, claims by its practitioners that the process can establish identity with absolute certainty are not. Each stage of the ACE-V analysis depends on the judgment of a human being to make "somewhat objective" or subjective determinations. Commonwealth v. Patterson, 445 Mass. 626, 630 (2005). See ante at - nn. 13, 14. Claims of absolute certainty are particularly irresponsible by a science based in large part on human judgment. In the context of a criminal trial, I would hold that, in the interest of maintaining the integrity of the fact-finding process, in the interests of justice and fair play, fingerprint experts be prohibited from expressing the results of their

Clark v. State, 140 Md. App. 540, 601 n.19 (2001); People v. Rush, 165 Misc. 2d 821, 822 (N.Y. Sup. Ct. 1995), aff'd, 242 A.D.2d 108 (N.Y. 1998), where courts quoted, with approval, testimony of experts who distinguished their respective disciplines (soil and DNA [deoxyribonucleic acid] analysis) from fingerprint analysis as lacking the ability to make an absolute identification.

analysis as absolutely establishing identity, or individualizing fingerprints to a particular individual to the exclusion of all others. They should be confined to an expression of personal opinion that the latent print belongs to the defendant.

Trial counsel did exemplary work here in cross-examination. In addition, Detective Lieutenant O'Hara's proper opinion testimony at the verification stage of this ACE-V analysis, the defendant's own testimony, and other evidence identified by the court resulted in no prejudice to the defendant.