

MASSACHUSETTS SUPREME JUDICIAL COURT

Commonwealth v. Arroyo

442 Mass. 135 (2004) · Decided June 25, 2004

SUMMARY

The Massachusetts Supreme Judicial Court affirmed Ezequiel Arroyo’s convictions for murder in the first degree, assault and battery by means of a dangerous weapon, and unlawful possession of a firearm. The court rejected challenges concerning sufficiency of the evidence, grand jury proceedings, compelled blood sampling, admission of jacket and DNA evidence, prosecutorial closing argument, jury instructions, and review under G. L. c. 278, § 33E.

CASE DETAILS

COURT	Massachusetts Supreme Judicial Court
WRITING FOR THE COURT	Cordy, J.
JURISDICTION	Massachusetts
DECIDED	June 25, 2004
DISPOSITION	affirmed
PROCEDURAL POSTURE	Direct appeal from convictions after a jury trial for murder in the first degree, assault and battery by means of a dangerous weapon, and unlawful possession of a firearm.
STANDARD OF REVIEW	Sufficiency of the evidence is reviewed by determining whether the trial evidence and reasonable inferences, viewed in the light most favorable to the Commonwealth, permitted a rational jury to find every essential element beyond a reasonable doubt. Grand-jury challenges are reviewed for whether the grand jury heard sufficient evidence to establish the defendant's identity and probable cause to arrest. Admission of scientific testimony is reviewed for abuse of discretion; unpreserved claims are reviewed for a substantial likelihood of a miscarriage of justice. Prosecutorial-closing-argument claims are evaluated under the applicable four-factor framework, with unpreserved claims subject to substantial-likelihood review. Admission of relevant evidence over prejudice is reviewed for palpable error. Review under G. L. c. 278, § 33E, is plenary.
PRECEDENTIAL VALUE	Published, precedential opinion of the Massachusetts Supreme Judicial Court.

TOPICS

criminal procedure

evidence

fourth amendment

probable cause

appellate procedure

PRACTICE AREAS

criminal law

criminal procedure

evidence

constitutional law

appellate procedure

QUESTIONS PRESENTED

1. Whether the trial evidence was sufficient to support the convictions despite the absence of direct eyewitness identification.
2. Whether the indictments should have been dismissed because the grand jury lacked probable-cause evidence or because the Commonwealth failed to present exculpatory evidence.
3. Whether there was a sufficient constitutional basis to compel Arroyo to provide a postindictment blood sample.
4. Whether evidence concerning the green jacket was relevant and not unduly prejudicial.
5. Whether the trial judge properly admitted PCR-based DNA evidence without a reliability hearing and whether counsel was ineffective for failing to object.
6. Whether improper prosecutorial closing arguments referring to demographic statistics and the caliber of the weapon required reversal.
7. Whether the jury instruction on assault and battery by means of a dangerous weapon and transferred intent improperly reduced the required mens rea.
8. Whether the murder conviction should be reversed or reduced under the Supreme Judicial Court's independent review authority under G. L. c. 278, § 33E.

HOLDINGS

1. The circumstantial evidence, viewed in the light most favorable to the Commonwealth, was sufficient for a rational jury to find Arroyo guilty beyond a reasonable doubt of the charged offenses.
2. The indictments were supported because the grand jury heard sufficient evidence to establish Arroyo's identity and probable cause to arrest him, and an indictment may be based on hearsay testimony.
3. The Commonwealth was not required to present the eyewitnesses' inability to identify Arroyo as separate exculpatory evidence because the fact was disclosed through investigating-officer testimony and would not likely have affected the grand jury's decision.
4. The order compelling Arroyo to provide a blood sample satisfied the Fourth Amendment because the Commonwealth showed that the sample would probably produce evidence relevant to his guilt.
5. The green jacket was relevant and its admission was not unduly prejudicial.

6. The DNA evidence was properly admitted, and counsel was not ineffective for failing to object because the objection was not preserved and the record did not show that a reliability objection would have succeeded or caused prejudice.
7. The prosecutor improperly argued facts not in evidence by referring to Boston demographic statistics and asserting that the victims were shot with a nine-millimeter weapon, but the errors did not require reversal because the jury's verdicts were not substantially likely to have been affected.
8. The jury instruction was correct because it required proof that Arroyo intended to touch the victim, while properly explaining that the Commonwealth need not prove a specific intent to cause injury.
9. After reviewing the law and the evidence of the whole case, the court found no reason to reverse or reduce Arroyo's first-degree murder conviction.

KEY QUOTATIONS

"The relevant question is whether all of the evidence, including the permissible inferences drawn therefrom, taken together, supports a finding, beyond a reasonable doubt, that Arroyo was the assailant." (at 140)

"An order compelling one to give a blood sample is a search and seizure under the Fourth Amendment [to the United States Constitution]." (at 143)

"It is beyond debate that counsel must restrict closing argument to the evidence and the fair inferences that might be drawn therefrom." (at 147)

FACTUAL BACKGROUND

Rivera was fatally shot and LaBranche was injured during an afternoon shooting in Dorchester. No eyewitness identified Arroyo, but witnesses described the assailant and police found a recently discarded green jacket along the reported flight path; the jacket resembled the assailant's jacket and contained a bloodstain for which Arroyo was a possible DNA source. Evidence also showed that Arroyo had a motive arising from disputed clothing, possessed a nine-millimeter handgun shortly before the shooting, planned travel to Puerto Rico, and made an unexplained apology shortly after the shooting.

PROCEDURAL HISTORY

A jury convicted Arroyo of murdering Luis Rivera, assaulting and injuring Marie LaBranche with a dangerous weapon, and unlawfully possessing a firearm. The trial judge denied motions for required findings of not guilty and a pretrial motion to dismiss the indictments, allowed the Commonwealth's motion for a postindictment blood sample, admitted evidence concerning a green jacket and DNA testing, and entered judgment on the verdicts. The Supreme Judicial Court reviewed the convictions and the defendant's claims concerning sufficiency, grand-jury probable cause, exculpatory evidence, blood-sample testing, evidentiary rulings, closing argument, jury instructions, and plenary review under G. L. c. 278, § 33E.

DISPOSITION

affirmed

CASES CITED

- Commonwealth v. Latimore, 378 Mass. 671, 677 (1979)
- Commonwealth v. Bush, 427 Mass. 26, 30 (1998)
- Commonwealth v. Morris, 422 Mass. 254, 255, 257-259 (1996)
- Commonwealth v. Swafford, 441 Mass. 329, 339-342 (2004)
- Commonwealth v. McCarthy, 385 Mass. 160, 162-163 (1982)
- Commonwealth v. Kater, 432 Mass. 404, 412, 422-423 (2000)
- Commonwealth v. O'Dell, 392 Mass. 445, 447, 449 (1984)
- Commonwealth v. Wilcox, 437 Mass. 33, 37 (2002)
- Commonwealth v. Trigones, 397 Mass. 633, 640 (1986)
- Commonwealth v. LaCorte, 373 Mass. 700, 702 (1977)
- Commonwealth v. Fayerweather, 406 Mass. 78, 83 (1989)
- Commonwealth v. Yesilciman, 406 Mass. 736, 744 (1990)
- Commonwealth v. Tobin, 392 Mass. 604, 613 (1984)
- Commonwealth v. Sicari, 434 Mass. 732, 749-752 (2001), cert. denied, 534 U.S. 1142 (2002)
- Commonwealth v. Vao Sok, 425 Mass. 787, 789-792, 799 (1997)
- Canavan's Case, 432 Mass. 304, 309-312 (2000)
- Commonwealth v. Sparks, 433 Mass. 654, 659-660 (2001)
- Commonwealth v. Saferian, 366 Mass. 89, 96 (1974)
- Commonwealth v. Kelly, 417 Mass. 266, 270-271 (1994)
- Commonwealth v. Kozec, 399 Mass. 514, 519 (1987)
- Commonwealth v. Johnson, 429 Mass. 745, 748 (1999)
- Commonwealth v. Nunes, 430 Mass. 1, 5 (1999)
- Commonwealth v. Ruddock, 428 Mass. 288, 292 n.3 (1998)
- Commonwealth v. Guy, 441 Mass. 96, 107 (2004)
- Commonwealth v. Ford, 424 Mass. 709, 710, 712 (1997)
- Commonwealth v. Garofalo, 46 Mass. App. Ct. 191, 192 (1999)
- Commonwealth v. Moore, 36 Mass. App. Ct. 455, 458 (1994)
- Commonwealth v. Mandile, 403 Mass. 93, 96, 99-102 (1988)
- Commonwealth v. Mazza, 399 Mass. 395, 396-400 (1987)
- Commonwealth v. Dinkins, 440 Mass. 715, 721 (2004)

OPINION

Commonwealth v. Arroyo

442 Mass. 135

CORDY, J.

Cordy, J. Luis Rivera and Marie LaBranche were shot on the afternoon of May 19, 1998, as they

stood in a crowd on a sidewalk in the Dorchester section of Boston. Rivera died from his wounds. Following a jury trial, Ezequiel Arroyo was convicted of murder in the first degree, assault and battery by means of a dangerous weapon, and unlawful possession of a firearm. On appeal, he argues that the evidence was insufficient to support the convictions; the indictments should have been dismissed both because evidence presented to the grand jury did not amount to probable cause and because the Commonwealth failed to present exculpatory evidence of which it was aware; there was an insufficient basis on which to order that a postindictment blood sample be taken from the defendant; the trial judge improperly admitted certain evidence; parts of the Commonwealth's closing argument were improper and prejudicial; and a portion of the judge's charge to the jury was erroneous. Arroyo also argues that his conviction of murder in the first degree should be vacated pursuant to our authority under G. L. c. 278, § 33E. We affirm.

*1371. Background. The evidence introduced at trial was largely circumstantial, and included the following. Shortly after 3 p.m. on May 19, 1998, five shots were fired in front of the Pilgrim Church on Columbia Road in Dorchester, where a crowd was gathered for a clothing sale. Four of the shots struck Luis Rivera in the chest and in the head, killing him. One of the shots struck Marie LaBranche in the leg, injuring her.

Eyewitnesses to the shooting testified that the assailant was a male (of unidentified ethnicity, but who "had white skin"), sixteen to twenty-one years old, between five feet, three inches and five feet, eight inches tall, "buffed" (as opposed to having a "husky build"), with dark hair and without a hat, wearing brown corduroy trousers, and a green nylon or flight-type jacket.¹ No eyewitness saw the assailant's face, and no one could identify Arroyo as the perpetrator. At the time of his arrest, Arroyo, a light-skinned Hispanic male with dark hair, was eighteen years old, five feet, three inches tall, and weighed 140 pounds. After the shooting, the assailant ran down Columbia Road and turned the corner onto Arion Street. A resident living at 6 Arion Street testified that he saw a white or Hispanic male wearing a green jacket ran up Arion Street, leap a chain link fence to cross into a back yard, and disappear as he ran through that yard toward Virginia Street. In response to reports of the assailant's flight, police officers searched the area around Arion and Virginia Streets. Hearing a report that individuals at 9 Virginia Street saw someone run through their yard from Virginia Street toward Monadnock Street, one police officer crossed through that yard and expanded the search toward Monadnock Street. The assailant was not apprehended, but the police found a nylon green jacket, which appeared to have been discarded recently, lying along a fence at the back of 10 Virginia Street. A witness to the shooting testified that this green jacket, depicted in a photograph admitted at trial, was "pretty similar" *138to the jacket that she saw the assailant wearing at the shooting. After Arroyo's arrest, a criminalist at the Boston police crime laboratory performed polymerase chain reaction (PCR) type deoxyribonucleic acid (DNA) testing on a blood stain found on the exterior right chest of the jacket.² The DNA profile revealed that Arroyo was a possible source of that blood stain, and that only one in 75,000 Caucasians, one in 81,000 Southeastern Hispanics, and one in 1,300,000 African-Americans shared that profile. The

Commonwealth also introduced evidence that on the day before the shooting, Eveliz Leon, Arroyo's girl friend, had become very agitated, had accused Rivera, the deceased victim, of stealing items that belonged to her and to Arroyo, and had asked Arroyo "to do something about it." More specifically, there was testimony that: on May 17, Leon and Arroyo moved in to stay for a period with Leon's cousin, Carmen Torres, who had previously been in a long-term relationship with Rivera resulting in the birth of her three children; when Leon moved in, she brought three bags of clothing with her, some of which belonged to Arroyo; those clothes were stolen from Torres's apartment on May 18; and Leon and Arroyo believed that Rivera had stolen them.³ The next morning at approximately 10 a.m., Torres walked with Leon and Arroyo to a bus stop, where Arroyo and Leon took a bus to a travel agency to purchase airline tickets for them both to travel to Puerto Rico.⁴ On the way to the bus stop, the three continued a discussion begun the night before about Rivera's alleged theft of the clothes. To avoid further argument, Torres told Arroyo to "forget about it," and that she would pay for the clothes. Arroyo replied, to the contrary, that he would "take care of [it]." Before Arroyo got on the bus, Torres saw that he was carrying a nine millimeter handgun and wearing a jacket, the color of which she could not remember at trial.⁵ Torres next saw Arroyo at some time after 5 p.m. that same day, at a birthday party. He was no longer wearing a jacket. At that time, Torres had not learned of Rivera's death. When Arroyo saw Torres, he said, "I'm sorry," without explanation. He then spoke to Leon, who had returned from the travel agency earlier in the day without Arroyo. Leon asked Torres to move away so that she and Arroyo could talk privately. Within five minutes of arriving, Arroyo left. Later that evening, Leon also left Torres, and Torres did not see either of them again until the time of trial.

2. Discussion, a. Sufficiency of the evidence. Defense counsel moved for required findings of not guilty at the close of the Commonwealth's case, and renewed the motion at the close of the defendant's case and again after the verdicts. Those motions were denied, and Arroyo challenges those decisions on appeal. In assessing his claim, we must determine whether the evidence presented at trial, together with all reasonable and possible inferences that might properly be drawn from it, was sufficient^{*140} to permit a rational jury to find beyond a reasonable doubt the existence of every essential element of the crimes charged. *Commonwealth v. Latimore*, 378 Mass. 671, 677 (1979). We conclude that it was.

While the Commonwealth did not present any direct evidence that Arroyo was the assailant, direct evidence is not necessary to convict. "[C]ircumstantial evidence is competent to establish guilt beyond a reasonable doubt," and inferences drawn from it need only be reasonable and possible, not necessary or inescapable. *Commonwealth v. Bush*, 427 Mass. 26, 30 (1998). Viewing the evidence in its light most favorable to the Commonwealth, *Commonwealth v. Morris*, 422 Mass. 254, 255 (1996), the jury could have found that Arroyo had a motive to murder Rivera (the theft of his and Leon's clothing), an intention to confront Rivera on the day of the shooting, the means to murder Rivera and to injure LaBranche (a nine millimeter handgun), and a plan to flee to Puerto Rico to evade detection and arrest. In addition, they could have found that Arroyo generally fit the

description of the assailant given by the eyewitnesses who testified, and that the green jacket worn by the assailant and discarded by him shortly after the shooting along his path of flight had been worn and discarded by Arroyo that day. Finally, they could have concluded that Arroyo's unexplained apology to Torres that evening, before the victim's death was known to her, was an apology for killing the father of her children just hours before.⁶ Arroyo contends, however, that evidence regarding the green jacket was too inconclusive for the jury both to have inferred that the jacket found by the police had been worn by the assailant, and that Arroyo was wearing it at the time of the shooting. We disagree with Arroyo's analysis. The jury could properly have inferred from the evidence that the jacket was worn by the assailant. It was found along the assailant's path of flight; a police officer testified that it appeared to have been discarded recently; and an eyewitness to the shooting testified that it was similar to the one she saw the assailant wearing. The jury could also have inferred from the DNA evidence that the jacket had been worn by Arroyo. *141 While we agree that these two inferences, standing alone, might not have been sufficient to establish that Arroyo was the assailant, see *Commonwealth v. Swafford*, 441 Mass. 329, 340-342 (2004) (presence of defendant's automobile at scene of shooting insufficient to prove presence or guilt); *Commonwealth v. Morris*, supra at 257-258 (presence of plastic mask with defendant's thumbprint left by gunman at shooting scene insufficient to establish presence or guilt),⁷ they nonetheless constituted reasonable and possible inferences relevant to and consistent with Arroyo's guilt. As such, they could properly have been considered along with other evidence supporting the same conclusion. The relevant question is whether all of the evidence, including the permissible inferences drawn therefrom, taken together, supports a finding, beyond a reasonable doubt, that Arroyo was the assailant. Here, that evidence included a great deal more than permissible inferences regarding the green jacket. The motions for required findings of not guilty were properly denied.⁸

b. Dismissal of the indictments. Before trial, Arroyo moved to *142 dismiss the indictments, arguing that the Commonwealth failed to present to the grand jury sufficient evidence of his guilt, and failed to present evidence that would have exculpated him. The judge properly denied the motion. With regard to the sufficiency of the evidence, we consider only whether "the grand jury [heard] sufficient evidence to establish the identity of the accused . . . and probable cause to arrest [him]" for the crimes charged. *Commonwealth v. McCarthy*, 385 Mass. 160, 163 (1982), and cases cited. Arroyo asserts that the Commonwealth presented no eyewitness testimony to the grand jury placing him at the scene, but instead relied on "inadmissible, double-hearsay testimony" that Arroyo's girl friend (Leon) stated that her boy friend "killed somebody."⁹ First, Arroyo is mistaken to suggest that an indictment may not be based on hearsay testimony. See *Commonwealth v. Kater*, 432 Mass. 404, 412 (2000); *Commonwealth v. McCarthy*, supra at 162. Second, he minimizes the evidence actually presented to the grand jury. The grand jury heard testimony establishing Arroyo's motive (the stolen clothing), his plan of escape (the tickets to Puerto Rico), his possession on the morning of May 19 of a nine millimeter handgun consistent with the nine millimeter shell casings found at the scene, see note 5, supra, and his nervous

manner in the hours immediately following the shooting. They also heard testimony regarding statements made by Leon that her boy friend had “killed somebody.” This evidence was sufficient for the grand jury to have found probable cause to believe that Arroyo fired the shots that injured LaBranche and killed Rivera. With regard to the Commonwealth’s alleged failure to present exculpatory evidence, we do not require prosecutors “in all instances to bring exculpatory evidence to the attention of grand *143juries.” *Commonwealth v. O’Dell*, 392 Mass. 445, 447 (1984). Instead, we require that prosecutors not “distort the meaning” of the evidence that they present by withholding certain portions of it. *Id.* at 449. “It is only when the prosecutor possesses exculpatory evidence that would greatly undermine either the credibility of an important witness or evidence likely to affect the grand jury’s decision, or withholds exculpatory evidence causing the presentation to be ‘so seriously tainted,’ that the prosecutor must present such evidence to the grand jury.” *Commonwealth v. Wilcox*, 437 Mass. 33, 37 (2002), quoting *Commonwealth v. O’Dell*, *supra* at 447. This is not such a case. Arroyo claims specifically that the Commonwealth did not call the eyewitnesses to the shooting to testify, and, consequently, that the jury were not apprised of their inability to identify Arroyo. That eyewitnesses to the shooting could not identify Arroyo as the assailant, however, was clear from the testimony of the investigating officers who did testify before the grand jury. It was not a fact withheld from the jurors by the Commonwealth. Moreover, these allegedly exculpatory eyewitnesses appeared and testified in the Commonwealth’s case at trial, and the jury found Arroyo guilty beyond a reasonable doubt. This is hardly the kind of evidence that would likely have affected the grand jury’s decision. c. Probable cause for taking the blood sample. After indictment and before trial, the Commonwealth moved for an order to take a sample of Arroyo’s blood for comparison with the blood stains on the green jacket. After a hearing, a Superior Court judge allowed the Commonwealth’s motion. Arroyo challenges this ruling on appeal. “An order compelling one to give a blood sample is a search and seizure under the Fourth Amendment [to the United States Constitution].” *Commonwealth v. Trigonés*, 397 Mass. 633, 640 (1986). After indictment, the Commonwealth need only show “that a sample of the defendant’s blood will probably produce evidence relevant to the question of the defendant’s guilt” in order to satisfy its constitutional burden. *Id.* That burden was satisfied in this case. At a hearing on the Commonwealth’s motion, the Commonwealth adequately demonstrated that matching a blood sample from Arroyo with the blood taken from the *144green jacket worn by the assailant would probably produce evidence relevant to his guilt. Nothing more was required. d. Admission of the green jacket. Arroyo argues that the judge erred in admitting evidence of the green jacket because it was found a distance from the shooting, was not adequately identified as having been worn by Arroyo or by the assailant, and because, in conjunction with the DNA evidence linking it to him, it was unduly prejudicial. The relevance threshold for the admission of evidence is low. “Evidence is relevant if it has a ‘rational tendency to prove an issue in the case,’ *Commonwealth v. LaCorte*, 373 Mass. 700, 702 (1977), or render a ‘desired inference more probable than it would be [otherwise].’ *Commonwealth v. Fayerweather*, 406 Mass. 78, 83

(1989). It ‘need not establish directly the proposition sought; it must only provide a link in the chain of proof.’ *Commonwealth v. Yesilciman*, 406 Mass. 736, 744 (1990), quoting *Commonwealth v. Tobin*, 392 Mass. 604, 613 (1984).” *Commonwealth v. Sicari*, 434 Mass. 732, 750-751 (2001), cert. denied, 534 U.S. 1142 (2002). Relevant evidence is admissible unless unduly prejudicial, and, “[i]n weighing the probative value of evidence against any prejudicial effect it might have on a jury, we afford trial judges great latitude and discretion, and we uphold a judge’s decision in this area unless it is palpably wrong.” *Id.* at 752. Here, evidence regarding the green jacket was relevant, and there was no error in the judge’s determination to admit it. The jacket, which matched eyewitnesses’ descriptions of the jacket worn by the assailant, was found along the assailant’s path of flight, and was connected by DNA evidence to Arroyo. This evidence made more probable the Commonwealth’s contention that Arroyo was the assailant who murdered Rivera and injured LaBranche. Arroyo has not identified anything “unduly prejudicial” about this evidence, only its tendency to inculcate him. See *id.* at 749-752 (finding admission of evidence that semen containing defendant’s DNA was found at scene of murder of ten year old boy not unduly prejudicial). The admission in evidence of the green jacket was not error. e. Admission of DNA evidence. Arroyo argues that admission of expert testimony regarding DNA tests that linked the green *145jacket to him was improper because the judge did not first conduct a hearing regarding the reliability of such tests. Defense counsel did not object to the testimony at trial. We have recognized the value and reliability of PCR-based DNA testing, see, e.g., *Commonwealth v. Vao Sok*, 425 Mass. 787, 789-792, 799 (1997), and we apply an abuse of discretion standard when reviewing trial judges’ decisions to admit scientific testimony, see *Canavan’s Case*, 432 Mass. 304, 312 (2000). “To preserve objections to DNA analysis of the type in issue, a defendant must file an appropriate pretrial motion stating the grounds for the objections and [must] request a hearing in accordance with the principles set forth in *Canavan’s Case*, [supra at 309-312]” *Commonwealth v. Sparks*, 433 Mass. 654, 659 (2001). Arroyo failed to do so here, and “it is now too late to raise objections concerning the reliability of the testing and the conclusions reached.” *Id.* at 660. To the extent that Arroyo alleges that his attorney’s failure to object at trial to admission of the testimony constituted ineffective assistance of counsel, he has failed to allege any facts that would suggest that such an objection would have succeeded and that he was thereby prejudiced by its absence. See *Commonwealth v. Saferian*, 366 Mass. 89, 96 (1974) (“whether there has been serious incompetency ... of counsel . . . [and] whether it has likely deprived the defendant of an otherwise available, substantial ground of defence”). Cf. *Commonwealth v. Sparks*, supra at 659-660 (“trial counsel made no [objection on the basis of reliability] in this case, apparently for tactical reasons. . . . Trial counsel also may have considered [the expert’s] reputation for quality forensic work”). Independently reviewing the expert’s testimony at trial, we find no basis to conclude that it was without adequate scientific basis. The judge’s admission of the evidence was not error, and Arroyo’s trial counsel did not render ineffective assistance by failing to object to it. f. Commonwealth’s closing argument. In closing argument, the prosecutor correctly noted expert

testimony that the defendant was one in 81,000 Southeastern Hispanics whose DNA profile matched that found in the blood stain on the green jacket. He also, however, estimated the male, nonblack popula*146tian of Boston, and from that concluded that “the only one” who could have worn the green jacket was Arroyo.¹⁰ The demographic statistics to which the prosecutor referred were not in evidence. Similarly, the prosecutor twice stated in closing argument that a nine millimeter gun was used in the shooting.¹¹ There was, however, no evidence at trial that the victims were shot with a nine millimeter, as that evidence had been erroneously excluded. See note 5, *supra*. Defense counsel objected to the Commonwealth’s demographic argument, and the judge gave a curative instruction, directing the jury to disregard it because no evidence regarding the city of Boston’s population was presented in the case. Defense counsel did not object to the Commonwealth’s statements regarding the nine millimeter gun. Arroyo argues that both arguments were improper and require reversal. It is beyond debate that counsel must restrict closing argu*147ment to the evidence and the fair inferences that might be drawn therefrom. E.g., *Commonwealth v. Kelly*, 417 Mass. 266, 270 (1994). It also is well established that, in this regard, the Commonwealth “and its prosecutors are held to a stricter standard of conduct than are errant defense counsel and their clients.” *Commonwealth v. Kozec*, 399 Mass. 514, 519 (1987). The prosecutor surely was aware that there was no evidence introduced at trial regarding either the ethnicity of Boston’s population or the caliber of the weapon used to shoot the victims.¹² The Commonwealth’s excursion outside the evidentiary realm, and invitation that the jury do the same, was wholly improper. It is not enough, however, for a defendant to show that the Commonwealth made improper reference to alleged facts not in evidence during closing argument. “When a defendant raises a claim of error regarding a prosecutor’s closing argument, we consider (1) whether the defendant seasonably objected; (2) whether the error was limited to collateral issues or went to the heart of the case; (3) what specific or general instructions the judge gave the jury which may have mitigated the mistake; and (4) whether the error, in the circumstances, possibly made a difference in the jury’s conclusions.” *Commonwealth v. Kater*, 432 Mass. 404, 422-423 (2000). See *Commonwealth v. Kelly*, *supra* at 271. Here, the defendant failed to object to an improper argument, and “our review is limited to whether there was a substantial likelihood of a miscarriage of justice.” *Commonwealth v. Kater*, *supra* at 423, citing *Commonwealth v. Johnson*, 429 Mass. 745, 748 (1999). A substantial likelihood of a miscarriage of justice exists “unless we are substantially confident that, if the error had not been made, the jury verdict *148would have been the same.”¹³ *Commonwealth v. Nunes*, 430 Mass. 1, 5 (1999), quoting *Commonwealth v. Ruddock*, 428 Mass. 288, 292 n.3 (1998). Applying the first three factors of the four-factor analysis to the demographic references, we note that (1) Arroyo did object, (2) the connection between the green jacket and Arroyo arguably was close to the heart of the Commonwealth’s case, and (3) the judge explicitly instructed the jury to disregard the demographic data for the express reason that it was not supported by evidence. The objection and the importance of the issue help Arroyo to satisfy his burden; the judge’s instruction augers for the Commonwealth. In this case,

however, the fourth factor is determinative. Although the expert's testimony did not establish to a certainty that Arroyo was the source of the bloodstain on the green jacket, it did support a strong inference that he was. Considered in conjunction with the rest of the evidence, we cannot say that the Commonwealth's error, particularly after the judge's curative instruction, made a difference in the jury's conclusions. With regard to the Commonwealth's assertions that a nine millimeter handgun was the murder weapon, to which there was no objection, the Commonwealth's error was to suggest that there was direct evidence that the victims were shot with a nine millimeter weapon, thus making it more likely that Arroyo, who had a nine millimeter handgun, was the shooter. There was, of course, no need for such direct evidence, and even without it the prosecutor could have argued and the jury could properly have inferred that Arroyo used his nine millimeter handgun in the shooting. Looking at the rest of the evidence supporting Arroyo's guilt, including his statements before and after the crimes and the evidence linking him to the jacket worn by the assailant, we are substantially confident that, absent the error, the jury's verdicts would have been the same.¹⁴ g. Jury charge. With regard to the assault and battery by ^{*149}means of a dangerous weapon charge, the judge instructed the jury that, although "[t]he Commonwealth must prove beyond a reasonable doubt that the defendant intended to touch Marie LaBranche with a dangerous weapon[,j . . . [t]he Commonwealth is not required to prove that the defendant specifically intended to cause injury to Marie LaBranche. . . . Any slight touching is sufficient as long as it is done with a dangerous weapon." The judge continued to explain the concept of transferred intent: "If you picked out an individual . . . intending to kill him and you . . . missed and hit someone else . . . [t]he law transfers the intent that you had against one person and applies it to the unintended victim"¹⁵ On appeal, Arroyo argues that this instruction was erroneous because it created "the mistaken impression that the Commonwealth need not prove the requisite intent to commit the battery — only the act which resulted in the battery." Because defense counsel did not object to the instruction, we review any error to determine whether it created a substantial likelihood of a miscarriage of justice. *Commonwealth v. Guy*, 441 Mass. 96, 107 (2004). We conclude that the instruction was not erroneous. Arroyo incorrectly equates the judge's instruction in this case with those given (and criticized) in *Commonwealth v. Garofalo*, 46 Mass. App. Ct. 191 (1999), and *Commonwealth v. Moore*, 36 Mass. App. Ct. 455 (1994). See *Commonwealth v. Ford*, 424 Mass. 709 (1997). In each of those cases, the error lay in the instructions that the jury need not find "that the defendant specifically intended to touch [the victims]." *Id.* at 710. *Commonwealth v. Garofalo*, *supra* at 192. *Commonwealth v. Moore*, *supra* at 458. This court and the Appeals Court have concluded that those instructions "impermissibly lowered the Commonwealth's burden of proof regarding the mens rea element of the crime by instructing the jury that all that was necessary for a guilty verdict was a finding that the defendant did an intentional act, the result of which was a touching of the victim." *Commonwealth v. Ford*, *supra* at 712. Such is not the ^{*150}case here. The judge's instruction was that the Commonwealth need not prove "that the defendant specifically intended to cause injury to Marie LaBranche"

(emphasis added). This, relating to the concept of transferred intent, is wholly different from an instruction stating that the Commonwealth need not show intent to touch. The judge correctly instructed that the jury had to find intent to touch. There was no error. h. G. L. c. 278, § 33E. We have reviewed the law and the evidence of the whole case pursuant to our duties under G. L. c. 278, § 33E, and have found no reason to reverse or to reduce Arroyo's conviction of murder in the first degree. Accordingly, the judgments are affirmed. So ordered. On cross-examination by defense counsel, a police officer testified that another unidentified person reported to him at the scene that the assailant was Hispanic and was wearing a green or blue jacket, a dark-colored hat, and jeans. There also were blood stains on the wrist of the jacket. The Commonwealth suggested a source for the blood stains, presenting evidence at trial to demonstrate that an individual firing a semiautomatic nine millimeter handgun could, with an improper grip on the pistol, receive a cut by the action of the pistol's slide. However, although the Commonwealth introduced evidence to show that Arroyo was in possession of a nine millimeter handgun on the day of the shooting, it did not present evidence that he ever received an injury from it or that it was used in the crime. There was also testimony at trial from Rivera's sister that, on May 18, Rivera had come home with trash bags full of clothing that was not his, that he washed the clothing, and that on the day he was shot he had been wearing some of it. Leon's children were then living in Puerto Rico, and she had been planning to go there. The defendant decided to accompany her at some point on or shortly before May 18. The Commonwealth introduced evidence to show that *139on May 19 a travel agency sold two tickets to travel on May 24 from Newark, New Jersey to San Juan, Puerto Rico. One ticket was for Leon; the other, however, was for an Alberto Diaz. No evidence was presented regarding the identity of Alberto Diaz, or whether that was an assumed name for the defendant. The name "Alberto Diaz" was redacted and kept from the jury. Torres testified at trial that she saw both tickets, and that one was issued to Leon and the other to Arroyo. The tickets were never used. Nine millimeter shell casings had been found at the scene of the shooting, but were excluded from evidence by the trial judge who ruled, pretrial, that they were not adequately linked to the defendant. We presume that the judge's ruling was based on the consideration that Arroyo's gun was never recovered, tested, and matched to the shells. While the lack of such a match may reduce the weight of this evidence, it is not a basis on which to exclude evidence of the shell casings themselves. They tend to prove that the victims were shot with a nine millimeter gun, and are therefore relevant to the circumstances of the shooting. Their relevance is heightened where, as here, there was testimony that Arroyo possessed such a weapon shortly before the shooting. This evidence was erroneously excluded. Torres did not learn that Rivera had been shot until the next day. In both of these cases, there was evidence that, in the hours preceding the shootings, the defendants associated with other individuals who subsequently were convicted of the crimes, see *Commonwealth v. Swafford*, 441 Mass. 329, 339-340 (2004); *Commonwealth v. Morris*, 422 Mass. 254, 258-259 (1996), and that it was equally possible that the individuals who were convicted, had, just before committing the crimes, borrowed, respectively, the automobile and the

mask. There is no evidence in this case to suggest a scenario in which the green jacket might have passed from Arroyo to another person between the time that the blood stain appeared on it and the time of the shooting. Arroyo also argues generally that *Commonwealth v. Mandile*, 403 Mass. 93 (1988), and *Commonwealth v. Mazza*, 399 Mass. 395 (1987), cases in which we reversed convictions of murder in the first degree, require reversal here. We disagree. Our decision in *Commonwealth v. Mandile*, supra at 96, 99-102, is inapposite. There, the conviction was reversed because there was no evidence that money found on the defendant was taken from the victim, and thus insufficient evidence that a robbery, on which the felony-murder theory rested, had occurred. There also was no evidence that the defendant shared his alleged coventurer's intent to commit the murder, which occurred after the coventurer had been alone with the victim (away from the defendant) for nearly fifteen minutes, and where no other actions by the defendant (such as suddenly driving away) indicated any knowledge that the murder had occurred. None of those circumstances is present in this case. In *Commonwealth v. Mazza*, supra at 396-400, we reversed because, although the Commonwealth could establish the defendant's motive and consciousness of guilt, and could show that the defendant arranged to meet the victim at the *142scene of the murder and went with a friend to the scene at around the time of the murder, the Commonwealth could not explain why no one heard gun shots during the short period of time that the defendant was at the scene, why there was no evidence that the defendant carried a gun that day, and why there was no fingerprint or other evidence connecting the defendant to the homicide. Here, in contrast, there is evidence that Arroyo had a motive and a gun and that the green jacket worn by the assailant during the crime had been worn by This testimony was not offered at trial. After noting the DNA profile ratios, the prosecutor said: "Now, let's assume — look at the number of people who live in Boston. Six hundred thousand people or so, give or take. Let's assume there are eight white people with that DNA profile, given those numbers. We assume half the people in Boston are white. Eight. "What else can we assume about that general population of people in Boston who are white and have that DNA profile? How many guys fit that profile? Well, forget about the black guys, ladies and gentlemen, because the shooter wasn't black. That's not — that's the shooter's jacket. The shooter's description isn't black "Light-skinned Hispanic. A man. Half the people in the general population are not men. So, from that eight or so people, cut it down to four. How many of the people in the general population with that profile are likely to be sixteen to twenty-one years old, young looking? You've got to lose at least one or two guys right there. How many people are left that fit the description of the shooter and can possibly have the defendant's DNA profile? Aren't we getting down to one, light-skinned; height, five-three, five-six, shorter than average? "How many people are left? I suggest to you, ladies and gentlemen, the only one left is this man right here, that it's his blood on the jacket." In one instance, the prosecutor stated: "What kind of gun is used in the murder? A nine millimeter." In the other, the prosecutor stated: "The defendant . . . had a gun, the same type of gun that was used in the crime, the nine millimeter." The Commonwealth argues that evidence that Arroyo possessed a nine millimeter

handgun and evidence regarding a hand injury that might result from the improper use of a nine millimeter handgun constituted admission of evidence that a nine millimeter handgun was used at the shooting. See note 2, *supra*. This is without merit. It appears from the trial transcript that the Commonwealth introduced evidence that the defendant possessed a nine millimeter handgun to demonstrate that he had the means to commit a shooting; evidence regarding the improper use of such a handgun was admitted to support the Commonwealth's theory regarding the source of the blood stain on the green jacket. There was no evidence regarding the caliber of the gun used in the shooting. This is the same standard that we would apply in considering whether defense counsel's failure to object constituted ineffective assistance of counsel. See, e.g., *Commonwealth v. Dinkins*, 440 Mass. 715, 721 (2004). We must also recognize the anomaly in this particular error, as it was error to have excluded evidence of the shell casings in the first place. The complete instruction that the judge gave was more lengthy, generally discussing the elements of the crime and more specifically addressing the dangerous weapon and intent elements, stating three times that the Commonwealth must show that the defendant intended to touch the victim (or, in the case of transferred intent, another intended victim).