

NOTICE: All slip opinions and orders are subject to formal revision and are superseded by the advance sheets and bound volumes of the Official Reports. If you find a typographical error or other formal error, please notify the Reporter of Decisions, Supreme Judicial Court, John Adams Courthouse, Pemberton Square, Suite 2500, Boston, MA 02108-1750; (617) 557-1030; SJCRreporter@sjc.state.ma.us

SJC-09020

COMMONWEALTH vs. THOMAS CROUSE.

Middlesex. September 8, 2006. - October 23, 2006.

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

Homicide. Burning a Dwelling House. Evidence, Prior conviction, Prior misconduct, Relevancy and materiality, Expert opinion, Qualification of expert witness, Tracking by dog, Cross-examination, Rebuttal. Witness, Expert. Practice, Criminal, Capital case, Prior conviction, Argument by prosecutor.

Indictments found and returned in the Superior Court Department on June 27, 2001.

The cases were tried before Charles M. Grabau, J.

James L. Sultan (Jonathan Harwell with him) for the defendant.

Marguerite T. Grant, Assistant District Attorney (Adrienne C. Lynch, Assistant District Attorney, with her) for the Commonwealth.

GREANEY, J. A jury in the Superior Court convicted the defendant on indictments charging murder in the first degree (based on theories of deliberate premeditation and extreme

atrociousness or cruelty)¹ and arson of a dwelling. Represented by new counsel on appeal, the defendant claims that a new trial is warranted because of errors in (1) the denial of his motion in limine to preclude the Commonwealth from introducing evidence of his prior convictions to impeach his trial testimony if he chose to testify; (2) five separate evidentiary rulings made during the trial; (3) the judge's refusal to permit defense counsel to cross-examine an important prosecution witness regarding the timing of the disclosure of certain discovery materials; and (4) prosecutorial misconduct in the form of improper remarks made during opening statement and closing argument. We reject these claims. We also conclude that there is no basis to exercise our power pursuant to G. L. c. 278, § 33E, to order a new trial or reduce the defendant's murder conviction to a lesser degree of guilt. Accordingly, we affirm the judgments of conviction.

The Commonwealth's theory at trial was that, on the morning of July 18, 2000, the defendant raped and murdered the victim in the basement function room of the Malden Mills condominium complex (Malden Mills) in Malden, set fire to the room in an attempt to destroy the evidence, and disposed of the victim's body in a wooded area in Hooksett, New Hampshire. The victim was fourteen years of age. She had been in the custody of the Department of Social Services (department), but repeatedly had

¹ The Commonwealth had also proceeded on the theory of felony-murder, based on the uncharged predicate felony of attempted forcible rape of a child, G. L. c. 265, § 22A. The jury rejected this theory.

run away from her department placements and often stayed at the homes of friends, or on the streets, in the months prior to her death. The primary issue at trial was the identity of her killer.

Based on the Commonwealth's evidence, a jury could have found the following facts. At 5:30 A.M. on July 18, 2000, the defendant, who lived in a condominium unit at Malden Mills with his girl friend and two young children, was seen crossing the condominium's parking lot and walking toward a ramp that led into the building, pulling a child's wagon. His vehicle, a Chevrolet Blazer, was parked in a nearby parking space reserved for visitors. Just after 6 A.M. that morning, the defendant went to a Mobil station next to Malden Mills and paid cash for five dollars' worth of gasoline. The station's surveillance videotape shows the defendant approaching the tailgate of his Blazer, lifting the window, and putting the gasoline nozzle into the right rear cargo area of the Blazer. Less than two minutes after he arrived at the Mobil station, the defendant was seen returning to Malden Mills and, about five minutes later, driving out of the parking lot at a high rate of speed.

At 6:19 A.M., the fire alarm at Malden Mills sounded. Fire fighters arrived within minutes and found the condominium's basement function room full of thick, dark smoke. The room's sprinkler system had been activated, but there were no flames. The room was in complete disarray. A glass-topped table and a burned chair were tipped over, coins were scattered on the floor,

and bloodstains covered areas of the burned carpet and furniture. Portions of one wall and baseboard showed impact spatter bloodstains and swipe markings consistent with a bloody object moving, or being moved, along the wall toward the door. There was a strong smell of gasoline and burn marks on the carpet, which showed pour patterns of liquid accelerant. There was no dispute at trial that the fire had been set deliberately. One of several expert witnesses for the Commonwealth, State Trooper Paul Horgan, testified that the fire had been set about ten minutes before the alarm sounded.

The defendant, his girl friend, and the children arrived at the home of her parents in Manchester, New Hampshire (usually a one-hour drive from Malden) sometime around 7 A.M. that morning. Soon thereafter, the defendant left the house alone. Cellular telephone records show that he drove around the outskirts of Manchester and made numerous telephone calls between 7:19 A.M. and 8:30 A.M. Between the hours of 8:30 A.M. and 9:27 A.M., he made no telephone calls.

Police officers investigating the fire in Massachusetts were informed by the defendant's stepfather of the defendant's presence in New Hampshire. Two officers traveled to Manchester that evening to interview the defendant and his girl friend. The defendant told Trooper Edward Forster that he had gone home at 8 P.M. the previous evening and had not left for the rest of the night. Records of telephone calls made from the defendant's cellular telephone reveal, however, that the defendant had made

several telephone calls to his home telephone after 8 P.M. Records also reveal that, at approximately 10:09 P.M. that night, the defendant placed a telephone call to Wayne Freeman. Freeman testified at trial that the purpose of that telephone call (and other telephone calls to Freeman placed by the defendant earlier that evening) must have been to arrange for Freeman to purchase cocaine for the defendant.

Records reveal a great number of telephone calls were placed, or received, by the defendant's cellular telephone on July 19, 2000. One call was made to a friend of the defendant, Ronald Whitman, Jr., to whom the defendant stated that he thought he was "in trouble." The defendant appeared at Whitman's home that summer afternoon wearing a long-sleeved shirt and long pants. The defendant seemed nervous and distraught. The defendant explained to Whitman that the police had been to his home and may have observed beer cans, which were there in violation of the terms of his parole. (The jury also heard evidence that the police had not been to the defendant's home and that drinking beer would not have been a violation of the terms of his probation.) On July 22, Whitman's girlfriend observed deep, red scratch marks on the defendant's neck and chest.

In October, 2000, the police obtained a search warrant for the defendant's Blazer. Small bloodstains were found on the steering wheel, the driver's side door and the carpet on the

passenger's side.² A dog trained in accelerant detection (Lucy) alerted to the right rear corner of the vehicle's cargo area, an area where the carpet showed signs of bleach discoloration. Laboratory test results of a carpet swatch cut from that area of the vehicle, however, were negative for the presence of gasoline.

In April, 2001 (about ten months after the fire), skeletal remains were discovered by a jogger in Hooksett, New Hampshire, in a wooded area approximately seven miles from Manchester. The body had been buried, face down, in a shallow grave. The skull and many small bones had been moved by scavenging animals. Where the skull had been was a mass of thick auburn hair held in a ponytail. The skeleton was clothed in cutoff jeans and two shirts. Markings in the dirt surrounding the remains indicate that the grave had been dug with both round ended and square ended shovels. At the bottom of a nearby ravine were two rusty shovels, one round ended and one square ended. On one of the shovels was a fingerprint, which, despite law enforcement efforts, was never identified. The New Hampshire police at that time could not identify the uncovered remains, except that they were of a Caucasian female.

Deoxyribonucleic acid (DNA) testing subsequently confirmed that the remains matched the blood found in the function room at Malden Mills. The medical examiner who performed the autopsy

² Swabs taken from the bloodstains were sent for deoxyribonucleic acid (DNA) analysis. There was DNA on the steering wheel from the defendant and one other person. DNA profiles could not be obtained from the remaining swabs.

concluded that the cause of death was at least one stab wound to the abdomen. A three-quarter inch slit in the same area on the right side of each of two shirts was consistent with a painful knife wound to the liver. The left abdominal area of both shirts and the cutoff jeans had been eaten away, possibly by animals attracted to blood, so other stab wounds could not be ruled out. Decomposition made recovery of any seminal fluid or sperm that may have been on the clothing next to impossible. Police disseminated a description through the media, and dental records ultimately led to the identification of the fourteen year old victim.

In June, 2001, a grand jury indicted the defendant in connection with the victim's murder and the arson at Malden Mills. While in jail awaiting trial, the defendant admitted to a fellow inmate, Gerald Intonti, that he had raped the victim in the function room at Malden Mills, murdered her, set fire to the room, and buried the victim's body in Hooksett. At trial, Intonti testified at length to multiple details of the case that, the Commonwealth argued to the jury, he would not have known had the defendant not told him.

The defendant did not testify at trial. His theory of defense was that he had nothing to do with the murder and fire. Two defense experts in fire systems and designs opined that the alarm at Malden Mills would have activated within one minute of the fire's being set, and the sprinkler system, in one to three minutes. Two correction officers from the Cambridge jail

testified for the defense that they had observed Intonti going "in and out" of the defendant's cell and that, between March 25 and April 16, Intonti's bunk was adjacent to the defendant's bunk, under which he stored a box full of legal papers. One of the officers testified to seeing the defendant and Intonti sitting together at a table with many papers. Defense counsel argued forcefully to the jury that the defendant had already left for New Hampshire at the time the fire was set; that he initially lied to police about being home on July 17 to cover up the fact that he had bought cocaine that night; that the two shovels were exculpatory because they showed that two perpetrators were involved and a print on one of the shovels was unmatched; and that Intonti had gathered his information about the crime by reading the defendant's legal papers kept in his cell. Details of the trial will be discussed in connection with relevant issues as they arise. We now consider the merits of the defendant's claims.

1. The defendant filed a motion in limine seeking to exclude from evidence, if he chose to testify, his prior convictions, including convictions of rape and aggravated rape, breaking and entering while armed with a knife, assault in a dwelling while armed with a screwdriver, and assault and battery by means of a knife and a screwdriver. After hearing arguments, the judge deferred ruling on the motion pending further information about the Commonwealth's case. A few days before the start of trial, the judge denied the defendant's motion. The

defendant chose not to testify at trial and now claims that the judge's ruling was prejudicial error that requires a new trial.

We first dispense with a threshold argument set forth by the Commonwealth, that this court should adopt the holding articulated by the United States Supreme Court in Luce v. United States, 469 U.S. 38 (1984), that a defendant who does not testify at trial lacks standing to challenge, on appeal, an unfavorable decision by a trial judge to allow impeachment with evidence of prior convictions.³ It has been our established practice to consider challenges to unfavorable rulings allowing the use of prior convictions, irrespective of whether the defendant actually testified at trial. See, e.g., Commonwealth v. King, 445 Mass. 217, 227-228 & n.9 (2005), cert. denied, 126 S. Ct. 1433 (2006); Commonwealth v. Deberry, 441 Mass. 211, 224-225 (2004). We have made reference to the Luce decision at least three times in the past and, each time, have presumed, without deciding the question, that a defendant who has not testified at trial may still challenge the denial of a motion to exclude evidence of a prior conviction. See Commonwealth v. Feroli, 407 Mass. 405, 407-408 (1990); Commonwealth v. Cordeiro, 401 Mass. 843, 854

³ The decision of Luce v. United States, 469 U.S. 38 (1984), appears to have been grounded on the following three rationales: (1) any possible harm to a defendant arising from an erroneous ruling is speculative, because a ruling on a motion in limine is subject to change as a case unfolds; (2) it cannot be presumed that a decision not to testify was motivated solely by the possibility of impeachment with prior convictions; and (3) the result of an erroneous ruling otherwise would be an automatic reversal, because any error which kept a defendant from testifying could not be deemed harmless. See id. at 40-42.

(1988); Commonwealth v. Fano, 400 Mass. 296, 301-302 n.9 (1987). See also Commonwealth v. Mahoney, 405 Mass. 326, 330 (1989) (assuming, not deciding, that defendant need not have testified in order to preserve issue). We decline the Commonwealth's invitation to adopt the holding in Luce v. United States, supra. Because the defendant did not renew his motion during trial, however, our review of any alleged error is limited to whether a substantial likelihood of a miscarriage of justice exists.⁴ Cf. Commonwealth v. Boyer, 400 Mass. 52, 57 (1987). As we next explain, there was no error.

A judge has discretion to exclude evidence of a prior conviction, otherwise admissible to be used for impeachment under G. L. c. 233, § 21, if the danger of unfair prejudice resulting from such evidence outweighs its probative value.⁵ See Commonwealth v. Leftwich, 430 Mass. 865, 869 (2000). As a general rule, it is difficult, "if not impossible, to show an abuse of discretion in the absence of a 'substantial similarity' between the offenses being tried and the prior convictions."

⁴ We note here that, even were we to adopt today the holding of Luce v. United States, supra, the defendant would still be entitled to review of all potential errors under the substantial likelihood of a miscarriage of justice standard set by G. L. c. 278, § 33E.

⁵ That a prior conviction may not appear probative of a defendant's capacity to tell the truth has little or no bearing on the judge's discretion. See Commonwealth v. Sanchez, 405 Mass. 369, 379 (1989); Commonwealth v. Fano, 400 Mass. 296, 302-303 (1987); Labrie v. Midwood, 273 Mass. 578, 582 (1931) ("One who has been convicted of crime is presumed to be less worthy of belief than one who has not been so convicted").

Commonwealth v. Drumgold, 423 Mass. 230, 250 (1996), quoting Commonwealth v. Preston, 27 Mass. App. Ct. 16, 23 (1989). We have stated that even the use of prior convictions to impeach that are substantially similar to the crime charged may be justified in the absence of other prior convictions with which to impeach a defendant's testimony. See Commonwealth v. Whitman, 416 Mass. 90, 95 (1993).

The judge clearly engaged in the required balancing test.⁶ The defendant's prior convictions all were substantially similar, in one way or another, to the murder as the Commonwealth alleged it occurred. The defendant's argument on appeal focuses on the similarity between the prior rape convictions and the Commonwealth's theory of felony-murder. Before the judge, however, the defendant contended, primarily, that the Commonwealth should not be permitted to use his prior convictions of assault and battery, which involved a knife or a screwdriver, to impeach him because they bore similarities to the murder. We do not disagree that the defendant's prior aggravated rape conviction is substantially similar to the uncharged offense that formed the basis of the felony-murder charge. There remains,

⁶ The defendant argues that impeachment with a prior conviction of an offense that is substantially similar to one charged and does not involve dishonesty should never be allowed and, therefore, that a ruling allowing impeachment in such circumstances is per se error. This argument requires no discussion. It has been considered, and rejected, many times by this court. See Commonwealth v. Bly, 444 Mass. 640, 654 (2005); Commonwealth v. Whitman, 416 Mass. 90, 94 (1993); Commonwealth v. Reid, 400 Mass. 534, 538 (1987); Commonwealth v. Fano, supra at 301-305.

however, a significant difference between a charge of aggravated rape and a charge of murder. See Commonwealth v. Andrews, 403 Mass. 441, 457 (1988). The determination to admit such impeachment evidence was a matter within the judge's discretion. See Commonwealth v. Chartier, 43 Mass. App. Ct. 758, 762 (1997) ("residue of discretion does not vanish when the prior conviction is for the same crime rather than for one substantially similar").⁷

2. We now take up issues pertaining to evidentiary rulings.

(a) The defendant's probation officer testified that, three times between November, 2000, and June, 2001, the defendant mentioned the fire at Malden Mills in the context of statements that revealed his anxiety over the fact that he was under police investigation. The probation officer was allowed to testify, over objection, that she was supervising the defendant for a "felony" conviction.⁸ The judge's determination to admit this testimony will be upheld absent clear error. See Commonwealth v. DelValle, 443 Mass. 782, 790-791 (2005).

⁷ The defendant's contention that the judge's ruling denied him his constitutional right to testify in his own defense is without merit. See Commonwealth v. Deberry, 441 Mass. 211, 225 (2004). "The defendant has a right to testify. He does not have a right to testify free of the effects of impeachment by prior conviction." Id., quoting Commonwealth v. Deberry, 57 Mass. App. Ct. 93, 99 (2003). See Commonwealth v. Paulding, 438 Mass. 1, 12 (2002); Commonwealth v. Maguire, 392 Mass. 466, 470 n.8 (1984); Commonwealth v. Diaz, 383 Mass. 73, 75-79 (1981).

⁸ The judge previously had allowed the defendant's motion in limine to preclude any testimony referencing the fact that the defendant had been on probation after a conviction of rape.

There was no such error. The better course would have been to allow the probation officer to testify that she was supervising the defendant "for a crime." The testimony was admissible, however, to support the Commonwealth's theory that the defendant had killed the victim to silence her after committing a rape, and then set the fire to destroy the evidence of his crime, in order to avoid a return to prison. See Commonwealth v. Clark, 432 Mass. 1, 19-20 & n.13 (2000); Commonwealth v. Otsuki, 411 Mass. 218, 237 (1991). Given that the jury had heard other testimony regarding the defendant's past criminality (on cross-examination, for instance, Intonti testified that the defendant had admitted to being a "leg breaker for bookies" and to once beating a man with a baseball bat and leaving him for dead in the trunk of an automobile), the possible prejudicial effect of the challenged testimony was minimal. See Commonwealth v. Qualls, 440 Mass. 576, 585 (2003).

(b) The Commonwealth introduced, over objections, testimony that the defendant had bragged to another that he liked to "party" with "broads" in the private function room at Malden Mills and that the defendant placed telephone calls to his cocaine supplier on the night of the murder. It is well established that evidence of prior bad acts, while not admissible for the purpose of showing the accused's propensity to commit the crime charged, may be admissible if the evidence has another probative purpose, including the purpose of showing intent, motive, state of mind, or some other relevant issue at trial.

See Commonwealth v. DelValle, supra at 790; Commonwealth v. Leonard, 428 Mass. 782, 786 (1999); Commonwealth v. Rodriguez, 425 Mass. 361, 370-371 (1997). The decision to admit such evidence is within the sound discretion of the judge. See Commonwealth v. DelValle, supra; Commonwealth v. Marrero, 427 Mass. 65, 67-68 (1998). The challenged testimony was relevant and admissible to support the Commonwealth's theory that the defendant enticed the victim to the function room with the intent of having a sexual encounter and using drugs with her. See Commonwealth v. Rivera, 424 Mass. 266, 273 (1997), cert. denied, 525 U.S. 934 (1998); Commonwealth v. Scott, 408 Mass. 811, 817-820 (1990). There was no error in the admission of this testimony.⁹

(c) The Commonwealth introduced in evidence, over objections, two items discovered by the police in the function room on the morning of the fire: the bottom half of a bathing suit and a plastic bag of white powder. We agree with the defendant that the admission of the bathing suit was error.¹⁰ It

⁹ In a related argument, the defendant challenges the manner in which the judge struck testimony that the defendant had told Gerald Intonti, "Things got out of hand and nobody wants to go back to jail." The judge instructed the jury to disregard the testimony as to "what allegedly [the defendant] said about spending the rest of his life in jail." The difference in wording is inconsequential.

¹⁰ Also discovered in the function room were an adult magazine (found on the top shelf of a cabinet) bearing the defendant's left thumb print and two small golf clubs (found wedged underneath a couch). The magazine was properly admitted in evidence because it tended to prove that the defendant had access to the function room, and the defendant has not asserted

was found, badly burned, stuffed underneath the cushion of a couch. There was no blood or seminal fluid found on the bathing suit and no testimony at trial connecting the bathing suit to the victim. The victim's skeletal remains were fully clothed when discovered. We are left with the Commonwealth's suggestion that the bathing suit could bolster its theory that the victim had been raped. This link is too tentative to establish the minimal relevancy required for admissibility. See Commonwealth v. Fayerweather, 406 Mass. 78, 83 (1989), quoting Commonwealth v. Chretien, 383 Mass. 123, 136 (1981) (defining relevant evidence as that which has a "rational tendency to prove an issue in the case"). See also Commonwealth v. Marquetty, 416 Mass. 445, 448 (1993); Commonwealth v. Westmoreland, 388 Mass. 269, 279 (1983) (items recovered from crime scene generally admissible but must still be relevant).

The plastic bag containing white powder, initially thought to be cocaine but determined through laboratory testing to be sucrose, falls closer to the line of admissibility. There was some evidence that the defendant had used the function room to "party" and use drugs with women; had once displayed to a female resident at Malden Mills a plastic bag containing white powder; and had telephoned his cocaine supplier several times on the

otherwise. See Commonwealth v. Arroyo, 442 Mass. 135, 139 n.5 (2004); Commonwealth v. Westmoreland, 388 Mass. 269, 279 (1983). The golf clubs were plastic toys with no discernible relevance to the crimes. The defendant has not challenged their introduction in evidence.

night of the murder and fire. Found under a chair cushion in the function room after the fire, the plastic bag, arguably, had some marginal tendency to show, in the context of other evidence at trial, that the defendant had lured the victim to the function room the previous evening with the promise of cocaine. See Commonwealth v. Tucker, 189 Mass. 457, 467 (1905) ("[E]vidence having a tendency to prove a proposition is not inadmissible simply because it does not wholly prove the proposition. It is enough if in connection with other evidence it helps a little").

Giving the defendant the benefit of the doubt on the admission of the plastic bag and its contents, we are confident that no unfair prejudice resulted from the admission of either the bathing suit or the bag. See Commonwealth v. Toro, 395 Mass. 354, 358 (1985). It suffices to say, with respect to the erroneous admission of the bathing suit, that the jury did not convict on the theory of felony-murder. Regarding the plastic bag, the defendant did not contest, at trial, the fact that he occasionally used cocaine. As has been stated, the defense theory was that the defendant had never met the victim, was not present in the function room at the time of the murder, and had left for New Hampshire at the time the fire was set. In closing arguments, defense counsel argued to the jury that the plastic bag proved nothing, for, "Who knows how long [it] had been laying [sic] there" and, "There is no cocaine in this case other than a packet of sucrose."

(d) Trooper Horgan testified that, in his opinion, about ten

minutes elapsed from the time the fire was set until the time the fire alarm sounded. The defendant concedes that Trooper Horgan was qualified to testify as an expert in the cause and origin of fires, but argues that, because the trooper had not testified before specifically on the delay between fire ignition and alarm activation, he was not qualified to opine about this particular subject. We disagree.

The judge determined that Trooper Horgan had sufficient special knowledge and experience to be able to give competent aid to the jury concerning the timing issue. "There is no requirement that testimony on a question of discrete knowledge come from an expert qualified in that subspecialty rather than from an expert more generally qualified." Commonwealth v. Mahoney, 406 Mass. 843, 852 (1990). Whether an expert determined to be qualified in one subject is also qualified to testify in another, related subject will depend on the circumstances of each case, and, where an expert has been determined to be qualified, questions or criticisms as to whether the basis of the expert's opinion is reliable go to the weight, and not the admissibility, of the testimony. See P.J. Liacos, M.S. Brodin & M. Avery, Massachusetts Evidence § 7.7.2, at 402-404 (7th ed. 1999 & 2006 Supp.), and cases cited. See also Commonwealth v. Rhoades, 379 Mass. 810, 818 (1980) ("even for the most highly qualified expert there must always be a first time").

(e) We reject the defendant's claim that the judge erred in allowing Trooper Horgan to testify, over objection, that Lucy

alerted to the back right corner of the cargo area of the defendant's vehicle.¹¹ The defendant does not quarrel with the general admissibility, as substantive evidence, of testimony regarding a canine alert to the possible presence of an accelerant.¹² In the circumstances as here, however, when subsequent laboratory testing has failed to confirm the presence of an accelerant, the defendant argues that evidence of a canine alert is not sufficiently reliable to be presented to the jury as indicative of the presence of an accelerant. The challenged testimony, however, did not purport to be an expert opinion of fact, based on a particular scientific theory or methodology, but a direct observation by Trooper Horgan (whose qualifications are

¹¹ On appeal, the defendant argues that this testimony constituted unreliable evidence presented as "scientific" and, therefore, following Commonwealth v. Lanigan, 419 Mass. 15, 26 (1994), his convictions must be reversed. The defendant's motion in limine to exclude this testimony, however, made no reference to the principles stated in Canavan's Case, 432 Mass. 304, 309-312 (2000), and Commonwealth v. Lanigan, supra. To the extent that the defendant's claim rests on the judge's failure to assume the role of gatekeeper to preclude the introduction of "junk science" evidence, it is too late for the defendant to request a Lanigan hearing. See Commonwealth v. Sparks, 433 Mass. 654, 659-660 (2001).

¹² At a hearing on the defendant's motion in limine, defense counsel expressly stated that he had no objection to Lucy's qualifications but was arguing only that her alert to the back of his vehicle was inadmissible because laboratory testing did not confirm it. The defendant asserted no objection at trial when Trooper Horgan testified that "[i]t's a proven fact that the canine's ability to detect minute traces of ignitable liquid [is] more sensitive than the equipment used to test those samples." The defendant also did not object below to, nor does he now claim error in, the admission of testimony concerning Lucy's alerts to separate areas of carpet in the function room (which were confirmed by subsequent testing).

not challenged) that Lucy (whose qualifications are not challenged) alerted to the back right cargo area of the defendant's vehicle. The testimony was offered, not to prove the crime of arson, but as circumstantial evidence that supported the Commonwealth's theory that the defendant purchased gasoline and transported it in the back of the Blazer in order to set the fire. That theory was supported as well by the Mobil station surveillance videotape (which the jury viewed in videotape form and as a computerized "power point" presentation) of the defendant appearing to pump gasoline into the right rear cargo area of the Blazer; by bleach stains on the Blazer's cargo carpet in the exact area of Lucy's alert; and by Intonti's testimony that the defendant had stated that, after raping and killing the victim, he had purchased gasoline in order to set the fire. See Commonwealth v. Taylor, 426 Mass. 189, 197-198 (1997) (evidence of canine alert to accelerant admissible with corroborating laboratory tests). See also Commonwealth v. Gordon, 422 Mass. 816, 839-842 (1996) (no error, under pre-Lanigan requirements of Frye v. United States, 293 F. 1013 [D.C. Cir. 1923], to admit expert testimony of ortho-tolidine testing as presumptive evidence of presence of blood, even though testing sometimes produced "false positives").

That there exists a difference of opinion as to the reliability of certain evidence does not necessarily make that evidence inadmissible. See Commonwealth v. Torres, 442 Mass. 554, 581 (2004). Trooper Horgan admitted, during cross-

examination, that a guideline published by the National Fire Protection Association suggests that evidence of a canine alert that is not confirmed by laboratory testing should not be considered valid. The jury, therefore, were aware of the controversy and could decide for themselves what weight, if any, to give the challenged testimony. See Commonwealth v. Rhoades, supra at 815 & n.4 (pre-Lanigan case, expert opinion that fire was set admissible; fact that samples taken from scene tested negative for accelerant went to weight, not competency, of evidence).¹³

3. We now reach the defendant's claim of impermissible interference with his right, protected by the Federal and State Constitutions, effectively to present evidence on his own behalf and to cross-examine witnesses for the prosecution. His concern is with the judge's ruling denying him the opportunity to

¹³ Appellate courts in other jurisdictions have considered the question whether an unconfirmed canine accelerant alert is admissible as direct evidence of arson. The majority of decisions, cited by the Commonwealth, have held such alerts admissible in circumstances where laboratory tests on the alert area are negative, so long as there is some other corroborating evidence of arson. See, e.g., Fones v. State, 765 So. 2d 849, 850 (Fla. Dist. Ct. App. 2000); State v. Buller, 517 N.W.2d 711, 713-714 (Iowa 1994); State ex rel. E.K., 766 So. 2d 661, 663, 666-667 (La. Ct. App. 2000); Commonwealth v. Gwynn, 555 Pa. 86, 105-106 (1998), cert. denied, 528 U.S. 969 (1999); State v. Schultz, 58 P.3d 879, 886 (Utah Ct. App. 2002). See also Brooks v. People, 975 P.2d 1105, 1111-1112, 1114-1115 (Colo. 1999) (testimony regarding use of scent-tracking canine to identify defendant as perpetrator is experienced-based specialized knowledge, not novel scientific theory; adopting majority view that testimony is admissible as expert opinion, with proper foundation and if corroborated by independent evidence), and cases cited.

question Lieutenant James M. Connolly of the State police about discovery materials turned over to the defense by the prosecution on April 26, 2002, regarding the discovery of a blue fiber on one of the shovels found near the victim's remains. The defendant asserts that Connolly's response "would have called into question the truthfulness of the Commonwealth's star witness" (Intonti). The established rule is that an appellate court will not overrule a trial judge's determination as to the proper scope of cross-examination unless the defendant shows a clear abuse of discretion and prejudice. See Commonwealth v. Fuller, 399 Mass. 678, 684-685 (1987). In the circumstances of this case, the defendant maintains, the judge's decision to exclude the question was an abuse of discretion that fatally undermined his defense, and therefore, a new trial is required. The issue arose in the following manner.

Intonti, who was housed in the same unit of the Cambridge jail as the defendant from February 7 until April 16, 2002, testified that the defendant often spoke about his case and was shocked that Intonti had not heard about it. Intonti testified, among other things, that (1) the defendant told him the crimes occurred in a common room at Malden Mills to which he had a key, where he would party with girls and "whores" he met through escort services; (2) there was cocaine, "booze," and sex involved; (3) the victim was a homeless, troubled young girl, a "little bit of a thing;" (4) on the couch he "fucked her in the pussy" and "in the ass" and "tore her ass up" and then "stuck her

in the abdomen" when "[t]hings got out of hand"; (5) there was blood all over the walls and he panicked; (6) he put the body in the Blazer; (7) he bought gasoline at a nearby Mobil station -- either 2.38 or 2.83 gallons, figuring it was "enough to burn the room down"; (8) he used the gasoline to set the fire; and then (9) he buried the body in New Hampshire because the victim had family there and finding her body nearby would implicate them. According to Intonti, the defendant "raved" that police and prosecutors had been "relentless" in investigating his cellular telephone records, and that the defendant had worried and stayed in bed for days after being told that the police had found a "blue fiber" on one of the shovels.

Defense counsel attempted to counteract the effect of Intonti's testimony by presenting testimony of two correction officers at the Cambridge jail, described above, to demonstrate that Intonti could have learned details about the crime from reading discovery materials kept in the defendant's cell. The prosecutor called Lieutenant Connolly to corroborate Intonti's testimony. Connolly testified that the volume of discovery materials given to the defendant by April 16, 2002 (the date Intonti left the Cambridge jail)¹⁴ filled five large binders, would have taken at least forty hours to read, and did not

¹⁴ By the time Intonti left the Cambridge jail, the Commonwealth had provided discovery of 267 items, including photographs of the blue upholstery and carpet in the function room and of the cutoff jeans the victim wore, and a November 28, 2001, letter from the New Hampshire police stating that the fiber evidence had been found.

include certain details contained in the defendant's admissions to Intonti.¹⁵ On cross-examination, defense counsel elicited from Connolly the fact that a report referring to fiber evidence that had been found on the shovels, and containing eighty-six pages of notes of two New Hampshire police chemists who performed the analysis, had not been given to the defendant until April 26, 2002, ten days after Intonti's departure. Defense counsel then attempted to ask Connolly whether those notes referred to a blue fiber. The prosecutor registered an objection.

At a sidebar conference, defense counsel admitted to the judge that he was "perplexed" to learn that information about a blue fiber was not provided to the defense until after Intonti left the Cambridge jail. He stated to the judge, "The inference is, I think, Intonti somehow had information on this before I did. I went through the file. This is the first thing I see about a blue fiber that [the defendant], months before, laid down in his bed for four months [sic] because he found out about it, and I got the thing after [Intonti] left." In response, the prosecutor pointed out, essentially, that the witness had been

¹⁵ Intonti had testified, for example, that the defendant told him that his arrest followed a chase involving police vehicles and low flying police helicopters. Lieutenant Connolly's testimony confirmed the accuracy of Intonti's description, as well as the fact that these details of the defendant's arrest were not contained in any of the discovery materials provided the defendant up until April 16, 2002, or, for that matter, in any police report or news article. Nor did the fact that the victim had relatives in New Hampshire appear in discovery materials provided the defendant at the time Intonti was housed at the Cambridge jail.

called as a rebuttal witness, not to provide substantive testimony, but solely to demonstrate that the discovery materials available to the defendant before April 16 had nothing to say about certain details of Intonti's testimony. Any questioning that went to discovery materials provided at a later date, therefore, fell beyond the permissible scope. The judge agreed with defense counsel that the matter was "perplexing" but commented, "I don't know where you can go with it." Defense counsel answered, "Neither do I." Defense counsel again attempted to ask Connolly whether the April 26 notes referred to blue fiber, and the judge sustained the prosecutor's objection. We conclude that it was within his discretion to do so.

The judge's ruling was based firmly on the purpose for which the witness was called -- to rebut the defendant's attack on Intonti's credibility by testifying as to discovery materials that had been provided the defendant before Intonti left the Cambridge jail. The judge did not completely bar questions as to the blue fiber. Defense counsel could have asked Connolly whether any of the discovery materials given the defendant before April 16 contained information about blue fibers. Defense counsel also, presumably, could have called another witness to testify as to the exact date when the defendant first received any documents referencing information about blue fibers. We acknowledge the premise that a legitimate benefit to the defense would have been gained if defense counsel had been able to demonstrate to the jury that the defendant could not have reacted

to the police's discovery of blue fibers in the manner to which Intonti had testified. The record simply does not support, however, the defendant's contention that the judge's ruling made that showing impossible.

Moreover, although the defendant would have gained a significant advantage by proving Intonti to be untruthful, it is not entirely clear how the defendant would have profited from demonstrating that the "blue fiber" discovery material did not reach the defendant until after Intonti left the jail. The proof would have directly undercut the defendant's theory that Intonti had acquired his extensive knowledge of the case by reading the defendant's discovery materials. In the end, it might only have confirmed in the jurors' minds that the defendant knew details about the crime that had not yet been provided to him in discovery. It is obvious that the jury did not find Intonti to be credible in every respect. His testimony provided virtually the only evidence that the victim had been raped, and the jury did not convict the defendant of felony-murder.

4. In her opening statements, the prosecutor told the jury, over objection, that the defendant "packaged up [the victim] for disposal as if she were garbage." In her closing, the prosecutor argued that the defendant set the fire "without any regard for the lives of the fifty or more people whose apartments were in that building . . . and the fire fighters for the city of Malden who responded," and she suggested that if the defendant had not made the mistake of using too much gasoline there might have been

"further tragedy that would have been compounded by one man's calculated selfish quest to get away with murder." The defendant now argues that all three remarks were improper attempts to arouse the passions of the jury and, as such, require reversal of his convictions. We disagree.

The statement linking the disposal of the victim's body to garbage was not far from the truth. Although there was no evidence to support the allegation that the defendant had "packaged up" the victim, the body was found in a wooded area where a substantial amount of trash had been deposited. The jury heard testimony that near her body were scraps of denim and towels, a brown bottle, an old can, and a toy horn. In evidence was a photograph of the victim's hair surrounded by nails. In closing, defense counsel referred to the nails, arguing that, because there were nails in the victim's hair but none in the defendant's vehicle, the defendant could not have been the murderer. The prosecutor responded in her closing argument (drawing no objection) that the nails indicated only that the defendant "chose to dump [the victim's] body where other people choose to dump their garbage." The prosecutor's comments were proper.

The prosecutor's closing references to the danger of setting the fire stated commonsense inferences that the jury could have made based on the evidence. It was only through luck that the fire set by the defendant did not take the lives of other people asleep in their apartments. Considered in the context of the

entire closing argument, these statements are of no real import.

See Commonwealth v. Lamrini, 392 Mass. 427, 432 (1984), Commonwealth v. Bourgeois, 391 Mass. 869, 885 (1984) ("In analyzing a claim of improper argument, the prosecutor's remarks must be viewed in light of the entire argument, as well as in light of the judge's instruction to the jury and the evidence at trial"). The defendant did not object, which "[a]lthough not dispositive of the issue . . . is some indication that the tone [and] manner . . . of the now challenged aspects of the prosecutor's argument were not unfairly prejudicial."

Commonwealth v. Sanchez, 405 Mass. 369, 375 (1989), quoting Commonwealth v. Toro, 395 Mass. 354, 360 (1985). The judge instructed the jury, four times, that closing arguments may not be considered as evidence. See Commonwealth v. Maynard, 436 Mass. 558, 571 (2002). Statements by a prosecutor in his or her opening statement and closing argument must be fair, but, so long as the remarks are fair, they can be tough. The challenged statements gave rise to no substantial likelihood of a miscarriage of justice. See Commonwealth v. Beland, 436 Mass. 273, 289-290 (2002).

5. We have examined the entire record under our statutory obligation and discern no basis to exercise our authority under G. L. c. 278, § 33E.

Judgments affirmed.