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SJC-09656

COMMONWEALTH vs. STEVEN CARUSO.

Middlesex. September 9, 2016. - January 13, 2017.

Present: Gants, C.J., Botsford, Gaziano, Lowy, & Budd, JJ.

Homicide. Constitutional Law, Confrontation of witnesses, Assistance of counsel. Evidence, Expert opinion, Information stored on computer, Of agency, Prior consistent statement, Testimony at prior proceeding, Videotape, Impeachment of credibility. Agency, What constitutes. Witness, Expert, Impeachment. Practice, Criminal, Capital case, Confrontation of witnesses, Assistance of counsel.

Indictment found and returned in the Superior Court Department on March 23, 2000.

A pretrial motion to suppress evidence was heard by Charles M. Grabau, J., and the case was tried before him.

David A.F. Lewis for the defendant.
Jessica Langsam, Assistant District Attorney (Elizabeth Dunigan, Assistant District Attorney, also present) for the Commonwealth.

LOWY, J. On January 20, 2000, Sandra Berfield, the victim, received a package containing a pipe bomb, which exploded when she opened it, blowing her body asunder and killing her

instantly. A jury in the Superior Court found the defendant, Steven Caruso, guilty of murder in the first degree on theories of deliberate premeditation and extreme atrocity and cruelty.

The defendant appeals from his conviction, claiming that (1) the admission of testimony by a jailhouse informant violated the defendant's confrontation rights; (2) a ballistics expert improperly testified to a report prepared by an unavailable expert; (3) the testimony of the Commonwealth's wire expert should have been excluded; (4) the Commonwealth failed to establish adequately the reliability of computer forensics evidence; and (5) the admission of the victim's prior recorded testimony and limitations on the defendant's ability to attack its veracity violated the defendant's confrontation rights. We conclude that no reversible error occurred, and we affirm the jury's verdict.

Background. We recite the facts the jury could have reasonably found in the light most favorable to the Commonwealth, reserving certain details for our analysis of the issues.

1. Defendant's relationship with victim. The defendant was a long-time regular customer at a restaurant in Medford where the victim worked as a server. The defendant often patronized the restaurant more than once daily, and typically requested a particular server. When the defendant became angry

after a long wait for his previously preferred server, the victim became the defendant's server of choice. The defendant and the victim established an amicable relationship.

The defendant was closely connected with many events taking place at the restaurant and with many of the people who worked there. The defendant, a handyman by trade, did repair work at the restaurant and in the homes of its employees. He also attended some social events organized for employees of the restaurant.

Eventually, the relationship between the defendant and the victim took a negative turn. The defendant asked the victim on a date. The victim declined, and the defendant's demeanor changed. Although the defendant had a reputation among the restaurant's staff for staring at people, he began to stare exclusively at the victim and in a hateful manner.

Tension between the defendant and the victim escalated. On two occasions, the defendant poured battery acid into the gasoline tank of the victim's motor vehicle, for which the defendant was convicted of destroying the victim's property. He was sentenced to eighteen months in the house of correction, with six months to serve and the balance suspended for two years. He also was ordered to make monthly restitution payments. A payment was due in January, 2000. The defendant

also was charged with, but not convicted of, slashing the victim's tires.

In addition, the victim had obtained a restraining order against the defendant after the first battery acid incident. After the second battery acid incident, the victim returned to court regarding the restraining order violation. At the end of the ensuing proceeding, the judge told the defendant the restraining order was still in full effect. Nevertheless, immediately after the hearing, the defendant approached the victim, coming within about two feet of her in a nearby parking lot. A few months later, the defendant drove by the restaurant again.

2. Victim's death. On the morning of Thursday, January 20, 2000, at approximately 12:30 P.M., the victim was instantly killed in her apartment when she opened a package containing a pipe bomb. The victim lived on the second level of an owner-occupied home in Everett.

The defendant left the package containing the pipe bomb on the victim's porch just after 9:30 A.M.¹ At around 12:30 P.M.,

¹ The defendant rejects the timeline of events presented by the Commonwealth and argues that he could not have delivered the package. However, in determining what facts a reasonable juror could have found, we view the facts in the light most favorable to the Commonwealth. Commonwealth v. Latimore, 378 Mass. 671, 676-677 (1979). The Commonwealth established that the defendant could have delivered the package shortly after 9:30 A.M. before

the homeowner retrieved the mail and, on her way back into her apartment, examined the package containing the bomb. She saw the name "Passanisi" with a Malden return address. Her husband heard the victim go down to the basement and then return to her apartment. Shortly thereafter, they felt the explosion.

The homeowner and her husband responded with alacrity. They went to the second-floor apartment and opened the door. They saw smoke, smelled an odor, and saw the victim's body on the floor. They telephoned 911.

Police arrived at the scene promptly. A responding officer identified the odor as similar to gunpowder. From the doorway to the apartment, the officer saw human tissue and blood spatter on the wall, floors, and ceiling. He called to the victim, whose body he saw at the end of a hallway. There was no response. The cause of death was later determined to be massive blast injuries.

Based on the defendant's troubled history with the victim, the police promptly sought to question him that same day. The defendant provided police with two inconsistent descriptions of his whereabouts on earlier that morning. First, he told the police he had gone from his home to a library around 10 A.M.,

he was identified by a witness at a café, approximately ten minutes away from the victim's home, at 10 A.M.

then to a café. Later, he told the police that he had gone to the café first, followed by the library.

Later that same evening, the police returned to the defendant's home to secure it, pending the issuance of a warrant, which was subsequently executed. Again, the defendant voluntarily answered the questions the police asked. He knew that the police were there "about that girl that got blown up in Everett," who had "caused [the defendant] a lot of problems." He also stated that he did not like the victim anymore. When asked what he thought should happen to a person who committed such a crime, the defendant responded, "Well, you don't know all the facts."

3. Search of crime scene and defendant's home. From the crime scene, police recovered, among other things, battery parts, pieces of pipe, metal fragments with human tissue or blood on them, pieces of copper, and wires. After the police conducted their search, a private company cleaned the premises and delivered additional items in bags to the fire marshal.

In executing the warrant at the defendant's home, the police discovered a number of items that were introduced as evidence at trial. The police found drill bits, an electronics wiring tool kit, batteries, copper wire, pieces of pipe, and ammunition. The wire, pipe fragments, batteries, and gunpowder

obtained at the defendant's home were consistent with similar materials found at the scene of the explosion.

In the defendant's bedroom, police recovered various documents containing detailed information about the victim, her family and past boy friends, including documents with the victim's date of birth, Social Security number, home address and place of employment. Police also recovered correspondence between a former boy friend and the victim, and a document containing a postal service code referring to the mail route to the victim's home. Shortly after the search, the defendant's sister informed police that she had discovered a booklet entitled, "High-Low Boom Explosives," in the defendant's room.

During a forensic investigation of the defendant's computer, police discovered information related to the victim and her family that had been accessed by the defendant in the days leading up to her death, including that the defendant had used an astrology program and a family tree program containing the victim's personal information, such as her telephone number and former addresses. Through the family tree program, the police accessed a mailing label containing the name "Sebastiano Passanisi," the victim's brother-in-law, with a Malden address, consistent with the return address on the package containing the bomb. Neither the victim's sister nor her brother-in-law had

lived in Malden for approximately thirty years. Police found no information related to any other family in the program.

Discussion. 1. Testimony of jailhouse informant.

Following his arrest, the defendant encountered Michael A. Dubis, another prisoner, in a holding cell at a hospital.² Dubis recognized the defendant's name and face from the newspaper and asked him questions about the victim's death. For approximately ninety minutes, Dubis talked to the defendant, intending to find out what had happened. Dubis sought to win the defendant's trust and asked questions to elicit information he could pass on to law enforcement.

The defendant made numerous incriminating statements to Dubis. The defendant told Dubis that he had learned about making bombs from a friend, that he had used batteries and a pipe, and that the package would only explode when it was opened due to a "basic separation device." The defendant also said that he "got [the bomb] there," that he used the return address of the victim's sister on the package, and that he knew the bomb would kill anyone who opened it. In addition, the defendant described his relationship with the victim, including the incidents involving damage to the victim's vehicle and that the

² Again, disregarding testimony put forth by the Commonwealth's witnesses, the defendant argues that he and Dubis never met and that the conversation never occurred. The jury were entitled to credit the testimony that the meeting took place. See Latimore, 378 Mass. at 676-677.

victim had a video recording of him "messing with" her vehicle. The defendant said that the victim would not go out with him and that he was mad at her and called the victim a "bitch."

Dubis relayed this information to a State trooper, Sergeant James Plath, to whom Dubis had previously provided information. Plath informed law enforcement officials involved in the defendant's case. Following a motion to suppress, which was denied, Dubis testified to the defendant's statements at trial.

The defendant argues that the motion judge, who also was the trial judge, erred in denying the motion to suppress his statements to Dubis, and therefore Dubis's testimony was improperly admitted at trial; the defendant also argues that the judge erred at trial by allowing the Commonwealth to use prior consistent statements to rehabilitate Dubis after cross-examination. We reject each argument.

a. Motion to suppress informant's testimony. In his pretrial motion to suppress Dubis's testimony, the defendant argued that Dubis was a government agent who questioned the defendant in violation of his right to counsel -- which had attached at his arraignment -- in violation of the Sixth Amendment to the United States Constitution and art. 12 of the Massachusetts Declaration of Rights.

"The court accepts the findings of fact from a suppression hearing absent clear error," but independently applies

constitutional principles to determine whether an informant was a government agent. Commonwealth v. Murphy, 448 Mass. 452, 459 (2007), citing Commonwealth v. Harmon, 410 Mass. 425, 429 (1991). We conclude that the judge properly denied the motion to suppress because Dubis was not the Commonwealth's agent when he spoke to the defendant. See Commonwealth v. Tevlin, 433 Mass. 305, 320 (2001); Harmon, supra at 428-429.

In a written decision, the judge made the following findings related to Dubis's previous involvement as a government informant. Dubis first acted as a government informant in 1988, while serving a sentence in a house of correction. He also testified for the Commonwealth in two murder trials. See Commonwealth v. Tevlin, 433 Mass. 305 (2001); Commonwealth v. Bennett, 424 Mass. 64 (1997). Following Dubis's testimony in one of the cases, his attorney asked Plath for assistance in securing house of correction sentences for Dubis, rather than State prison sentences, out of concern for Dubis's safety. Plath agreed to speak with law enforcement responsible for the relevant prosecutions. In a separate matter, when Dubis was not in jail, Dubis provided information to Plath and received twenty-five dollars as reimbursement for gasoline.

The judge also found that no one, including Plath, promised Dubis any assistance in return for information he provided. Between his 1998 sentencing and his testimony at the motion to

suppress hearing in 2003, Dubis sought parole three times. Dubis was denied parole on each occasion, and no law enforcement official spoke on his behalf at any parole hearing.

The Sixth Amendment and art. 12³ prohibit the Commonwealth from "deliberately elicit[ing]" incriminating statements from an individual who has been charged with a crime, without the individual's counsel present. Tevlin, 433 Mass. at 320, quoting United States v. Massiah, 377 U.S. 201, 206 (1964). In addition to direct questioning, the government deliberately elicits statements by "intentionally creating a situation likely to induce" the charged individual to make incriminating statements in the absence of counsel. United States v. Henry, 447 U.S. 264, 274 (1980); Harmon, 410 Mass. at 428, citing Massiah, supra at 206. There is no dispute that Dubis intentionally elicited incriminating statements from the defendant to pass on to law

³ We have recognized that the art. 12 may provide broader protection of the right to counsel than the Sixth Amendment in circumstances in which "the informant has an articulated agreement with the government that contains a specific benefit or promise." Murphy, 448 Mass. at 467. This requirement ensures that the Commonwealth observes its "affirmative obligation not to act in a manner that circumvents and thereby dilutes the protection afforded by the right to counsel." Id., quoting Maine v. Moulton, 474 U.S. 159, 171 (1985). However, the court has not yet had to consider circumstances involving a jailhouse informant in which art. 12 provides broader protection than the Sixth Amendment. See id. at 467-468 (informant was agent for purposes of both Sixth Amendment and art. 12). On the facts of this case, we decline to extend the protections of art. 12 further.

enforcement for his own advantage. The only question is whether Dubis was a government agent.

"The United States Supreme Court has not clearly defined the point at which agency arises." Murphy, 448 Mass. at 460. Yet, at a minimum, there must be some arrangement between the Commonwealth and the informant before the informant's actions can be attributed to the Commonwealth. See id. at 463-464, 467 (articulated agreement between informant and Commonwealth containing specific benefit creates agency relationship [citation omitted]). An inmate's "unencouraged hope to curry favor" by informing does not establish an agency relationship, even if the informant subsequently receives a benefit (citation omitted). Harmon, 410 Mass. at 428. See Commonwealth v. Rancourt, 399 Mass. 269, 274 (1987). See also Moulton, 474 U.S. at 176. Nor does the fact that an informant provided information in the past establish an agency relationship. Rancourt, supra at 272, 274.

No agency relationship exists in the absence of a prior arrangement between the Commonwealth and the informant. For example, no agency relationship forms when the Commonwealth does not promise a benefit to an informant, even where -- as in this case -- the informant has provided information to a particular police officer on multiple prior occasions. Harmon, 410 Mass. at 429-430 By contrast, in the Murphy case, an informant was a

government agent, because an assistant United States attorney offered to file a motion to reduce the informant's sentence "if he gave 'substantial assistance' to the government." Murphy, 448 Mass. at 465, 467-468. In the Henry case, the government paid an informant on a contingency fee basis for information, encouraging the informant to elicit incriminating information from other inmates. Henry, 447 U.S. at 270-271, 274. Even though the government instructed the informant not to question the defendant in the Henry case, the Supreme Court concluded that keeping the informant near Henry in prison and utilizing the contingency fee arrangement for information, tended to show that the government "intentionally creat[ed] a situation likely to induce Henry to make incriminating statements." Id. at 266, 270-271, 274. See United States v. Brink, 39 F.3d 419, 423-424 (3d Cir. 1994) (intentional placement of known informant in cell may constitute deliberate effort to elicit incriminating information).

Based on the facts established at the motion to suppress hearing, Dubis was not an agent of the Commonwealth. No evidence suggests that the Commonwealth put the defendant and Dubis in the same cell in order to elicit information from the defendant. Nor does the evidence show that any law enforcement official involved in the defendant's case knew that Dubis and the defendant would be placed in the same cell or that their

encounter was the result of anything but happenstance. That Dubis had provided information to a particular officer on more than one occasion does not demonstrate that he was a government agent. Harmon, 410 Mass. at 429. Dubis is unlike the informant in the Harmon case, who had reached out to the officer after making first contact with the defendant. Id. at 429. The defendant in the Harmon case confessed his guilt to the informant only after the officer told the informant to "keep his ears open." Id. We concluded that the informant in the Harmon case was not a government agent, and the evidence suggesting Dubis was a government agent is even weaker. See id. at 429-430. Although Plath similarly told Dubis to "keep his ears open," all of Dubis's contact with law enforcement regarding the defendant's case took place after Dubis's sole conversation with the defendant.

Dubis's conduct as an informant is also unlike the informants in Murphy, 448 Mass. at 457, and Henry, 447 U.S. at 271, 274, because each of them had in place, before eliciting incriminating information, an articulated agreement with the government, pursuant to which the informants received specific benefits.⁴ As referenced above, the facts in this case do not

⁴ The defendant argues that Dubis is receiving a continuing benefit by being placed in a house of correction, rather than a State prison. However, Dubis secured this arrangement nearly two years before Dubis's encounter with the defendant. We

even suggest that the Commonwealth planned for Dubis and the defendant to share a cell. Cf. Henry, 447 U.S. at 274; Brink, 39 F.3d at 423-424.

The judge properly denied the defendant's motion to suppress. The record does not show the Commonwealth engaged in any conduct in contravention of its "affirmative obligation not to act in a manner that circumvents and thereby dilutes the protection afforded by the right to counsel." Murphy, 448 Mass. at 467, quoting Moulton, 474 U.S. at 171.

b. Rehabilitation of informant through prior consistent statements. The defendant also claims that it was error to permit the Commonwealth to rehabilitate Dubis at trial using prior consistent statements, where the trial judge failed to make an explicit finding that Dubis had made the prior consistent statements before his motive to fabricate arose. We disagree.

considered whether Dubis was an agent of the government in the Tevlin case, and we concluded that "the evidence was that [Dubis] was moved for safety reasons and that it is common practice to move inmates to prevent retaliation against those who provide information." Tevlin, 433 Mass. at 321. The trial judge in this case made similar findings. Moving an informant to mitigate dangers arising from the very fact that he provided information is not the type of benefit with which the Sixth Amendment and art. 12 are concerned. Cf. Henry, 447 U.S. at 270-271; Murphy, 448 Mass. at 457. Because no evidence suggests an intentional plan by the government to put Dubis and the defendant together, any subsequent benefit Dubis received is not sufficient independently to establish an agency relationship. See Rancourt, 399 Mass. at 274.

Prior consistent statements are generally inadmissible. Mass. G. Evid. § 613(b)(1) (2016). However, an exception exists where a trial judge makes a preliminary finding (1) that the witness's in-court testimony is claimed to be the result of a recent fabrication or contrivance, improper influence or motive, or bias; and (2) that the prior consistent statement was made before the witness had a motive to fabricate, before the improper influence or motive arose, or before the occurrence of the event indicating a bias. Commonwealth v. Kater, 409 Mass. 433, 448 (1991), S.C., 412 Mass. 800 (1992) and 432 Mass. 404 (2000).⁵ Although such a finding is required and it should be made on the record, outside the presence of the jury, here such a finding is implicit in the judge's decision. See Commonwealth v. Gaulden, 383 Mass. 543, 547 (1981) (even without explicit findings, record supported trial judge's decision to permit admission of confession); Commonwealth v. Brady, 380 Mass. 44,

⁵ Recently, we have articulated that the use of prior consistent statements to rehabilitate a witness is permissible when a court finds that a party has claimed that a witness's in-court testimony is the result of recent contrivance or bias, so long as the prior consistent statement was made before the witness had a motive to fabricate or the occurrence of an event indicating a bias. See Mass. G. Evid. § 613(b)(2) (2016). Our formulation in this case departs only slightly from our more recent articulations, but more precisely reflects the underlying purposes for which prior consistent statements may be used for rehabilitative purposes. See, e.g., Commonwealth v. Nova, 449 Mass. 84, 93 (2007); Commonwealth v. Brookins, 416 Mass. 97, 102-103 (1993); Kater, 409 Mass. at 448; Commonwealth v. Zukoski, 370 Mass. 23, 26-27 (1976). See also Mass. G. Evid. 613(b)(2).

52 (1980) ("Failure to make explicit findings does not in and of itself constitute reversible error" [citation omitted]). In addition, trial judges have broad discretion to determine whether circumstances warrant the admission of prior consistent statements to rebut a claim of a recent fabrication or contrivance, improper influence or motive, or bias. See Commonwealth v. Rivera, 430 Mass. 91, 100 (1999); Commonwealth v. Zukoski, 370 Mass. 23, 27 (1976).

During the defendant's cross-examination of Dubis, defense counsel used prior inconsistent statements from Dubis's testimony at the motion to suppress hearing. Defense counsel elicited that, until the week of the trial, Dubis had not seen the report generated by his initial interview with police regarding the defendant. Defense counsel also suggested that Dubis was expecting assistance at upcoming parole hearings and that Dubis intended to ask the prosecution in this case to assist him with obtaining release from prison early and being placed on a bracelet. Defense counsel then asked Dubis, "So all of a sudden you were shown what they want you to say, isn't that right?" This question suggested a recent contrivance, improper influence or bias, and the trial judge permitted the Commonwealth to rehabilitate Dubis using his initial statement.

The defendant argues that the rehabilitation was improper because Dubis had the same motive to fabricate (i.e., to

ingratiate himself with law enforcement) at the time he made his prior statement. Although that may be true, defense counsel indicated a particular event influenced Dubis's testimony by alleging the Commonwealth showed Dubis "what they want[ed] [him] to say" in the week leading up to trial. The Commonwealth was entitled to rebut that suggestion. See Rivera, 430 Mass. at 100; Zukoski, 370 Mass. at 27. The pertinent question is thus whether Dubis's prior statement predates the specific event allegedly giving rise to the event that had an impact on Dubis's testimony at trial. Mass. G. Evid. § 613 (b) (2).

The record shows that Dubis's prior consistent statements predated the time at which the defendant implied the Commonwealth told Dubis what to say. Dubis made his original statements to the police on June 29, 2000. Dubis did not testify until July 31, 2003. The prior consistent statements were admissible to corroborate Dubis's testimony, and the trial judge provided a limiting instruction during the final charge.

2. Propriety of substitute testimony for unavailable witness. At trial, State Trooper Michael R. Arnold testified in place of Captain John Busa, who was unavailable due to illness, regarding ammunition seized at the defendant's home. Busa had seized ammunition from the defendant's home and emptied the gunpowder into bags, which he delivered to a State police

chemist. Busa also concluded that the ammunition was "reload"⁶ ammunition. Arnold was not present when police retrieved the ammunition or during Busa's examination, but Arnold had an opportunity to examine the evidence before testifying. The defendant objected at trial to Arnold's substitution for Busa and argues on appeal that his inability to cross-examine Busa violated his confrontation rights.⁷ There was no reversible error.

Criminal defendants in Massachusetts must have a "meaningful opportunity" to cross-examine an expert regarding his or her opinion. Commonwealth v. Tassone, 468 Mass. 391, 399 (2014). An expert's opinion may be based on personal knowledge; "evidence already in the record [or which the parties represent]

⁶ "Reload" ammunition is ammunition that has been repackaged, usually by putting a new projectile, new gunpowder, and a new priming compound into a previously fired cartridge casing. An individual can repackage the ammunition him or herself, or purchase reload ammunition from a manufacturer.

⁷ For the first time on appeal, the defendant argues that the introduction of evidence collected from the crime scene by a private company also violated his confrontation rights. However, the introduction of physical items does not constitute hearsay, and therefore does not implicate the defendant's confrontation rights. See Crawford v. Washington, 541 U.S. 36, 53 (2004). Further, although there was no testimony to establish a full chain of custody, that goes to the weight of the evidence, not its admissibility. Commonwealth v. Hogg, 365 Mass. 290, 294-295 (1974). The jury were aware of weaknesses in the chain of custody and the Commonwealth's expert did not rely on the company's evidence to conclude that the items from the crime scene were consistent with the items found in the defendant's home.

will be presented during the course of the proceedings, which facts may be assumed to be true in questions put to the witness"; and on "facts or data not in evidence if the facts or data are independently admissible and are a permissible basis for an expert to consider in formulating an opinion." Mass. G. Evid. § 703 (2016). See Commonwealth v. Jones, 472 Mass. 707, 713 (2015). The prosecution may not elicit the facts underlying an expert's opinion on direct examination, if the opinion is based on information not admitted in evidence. Tassone, 468 Mass. at 399. Because the defendant objected at trial to Arnold's testimony, we must be "satisfied beyond a reasonable doubt that [any] tainted evidence did not have an effect on the jury and did not contribute to the jury's verdicts." Commonwealth v. Tyree, 455 Mass. 676, 701 (2010).

Arnold's testimony that the ammunition was reload was admissible. It was relevant to support the Commonwealth's theory that the defendant used gunpowder from ammunition to construct the pipe bomb. Arnold permissibly based his opinion on his own observation of three boxes of ammunition. Arnold concluded the ammunition was reload because otherwise identical projectiles had branding marks from different manufacturers, indicating that the ammunition had been repackaged. The defendant had the opportunity to -- and did -- cross-examine the

witness regarding the formulation of his opinion. Tassone, 468 Mass. at 399.⁸

3. Expert testimony concerning electrical wire. Based on items seized from the defendant's home, the Commonwealth sought the expertise of Dennis Toto. Toto was a licensed electrician, an electrical consultant to the State fire marshal, and formerly the chief wire inspector in Revere. He conferred with a State police chemist, who showed him wire with white insulation and a red stripe, retrieved from the crime scene, and asked for Toto's assistance to locate similar wire.

At trial, Toto testified to three primary opinions on direct examination: (1) the wire he examined from the crime scene was not fit for use in household wiring; (2) the wire recovered from the crime scene would not have come from a coffee maker that was destroyed in the explosion; and (3) he located wire that appeared to be "the exact same" or "extremely similar"

⁸ The remainder of Arnold's testimony, regarding chain of custody and the contents of Busa's report, was either cumulative or not material. See Commonwealth v. Dagraca, 447 Mass. 546, 552-553 (2006) (inadmissible evidence may not be prejudicial when cumulative of other evidence). Arnold should not have been permitted to testify to Busa's report. Mass. G. Evid. § 703. However, the error was harmless beyond a reasonable doubt, where the critical testimony was from the State police chemist, who stated that the gunpowder retrieved from the crime scene was consistent with gunpowder seized from the defendant's home. Any weakness in the chain of custody speaks only to the weight of the evidence, not its admissibility. See Hogg, 365 Mass. at 294-295. Defense counsel adequately exposed Arnold's lack of personal knowledge regarding chain of custody on cross-examination.

at a small electronics store, which he subsequently sent to the chemist.⁹ The defendant now argues that Toto's underlying methodology was unreliable.

"The trial judge has a significant function to carry out in deciding on the admissibility of a scientific expert's opinion." Commonwealth v. Lanigan, 419 Mass. 15, 25 (1994). The expert must "have a reliable basis in the knowledge and experience of his discipline." Id., citing Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 592 (1993). If the trial judge determines that "the process or theory underlying a scientific expert's opinion lacks reliability, that opinion should not reach the trier of fact." Id. at 26. In Canavan's Case, 432 Mass. 304, 313-314 (2000), an opinion published two days after the jury rendered their verdict in this case, we held that the same gatekeeping determination applies where an expert's testimony is based on clinical experience and personal observation, rather

⁹ The defendant also argues that Toto's opinion -- regarding the rarity of that type of white wire with a red stripe -- was unreliable, and should have been excluded. This argument is misguided for two reasons. First, defense counsel elicited Toto's opinion regarding the so-called "rarity" of the wire on cross-examination, in an effort to undermine the credibility of Toto's investigation. See Commonwealth v. Perez, 405 Mass. 339, 344 (1989) (defendant "cannot now complain of [the] prejudicial effect" of testimony elicited by defendant on cross-examination [citation omitted]). Second, the defendant misconstrues the true nature of Toto's opinion. Although not responsive to the question asked, Toto testified that the wire at issue was not widely available for purchase in electronics stores, not that the wire was rarely used in appliances.

than on scientific knowledge. Cf. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 141 (1999) (under Federal rules of evidence, Daubert analysis applies to expert testimony based on "technical" and "other specialized" knowledge).

For the first time on appeal, the defendant argues that the methodology underlying Toto's opinions was unreliable. In order to preserve an objection to an expert's methodology, a defendant must file a pretrial motion stating the grounds for its objection. Commonwealth v. Sparks, 433 Mass. 654, 659-660 (2001). Because the defendant did not seek a Lanigan hearing, we have no record upon which to determine that the methodology did not satisfy the Daubert/Lanigan gatekeeper reliability requirements.

Even if we were able to discern that Toto's methodology was not sufficiently reliable, his testimony created no substantial likelihood of a miscarriage of justice. First, Toto adequately explained physical differences between household and appliance wiring to the jury. Commonwealth v. Pytou Heang, 458 Mass. 827, 848 n.30 (2001) (role of expert to help jury determine facts). Second, the jury could have inferred that the defendant was the source of the wire used in the bomb, because the State police chemist testified that the wire from the crime scene was consistent with wire from the defendant's home. Third, the jury learned from the chemist's direct testimony and extensive and

effective cross-examination that Toto's wire from the electronics store was not consistent with the wire used in the bomb.

4. Evidence derived from searches of defendant's computer.

Detective Lieutenant John McLean of the Medford police department conducted two searches of the defendant's computer. As a result, the Commonwealth introduced two types of evidence, the admission of which the defendant argues constitutes reversible error: (1) dates upon which certain files on the computer were last accessed; and (2) still images of files displayed on the computer monitor (screen shots). No reversible error occurred.

a. Last access dates. McLean testified to a number of dates on which files on the defendant's computer were accessed and on which electronic mail messages were transmitted. In particular, the defendant objects to the introduction of the last access date of an astrology program on the defendant's computer. When McLean launched the program, it contained the victim's horoscope information. McLean testified that the information was last accessed on January 19, 2000 -- the day before the victim's death. McLean did not enter the victim's name into the program, nor did his investigation alter the access date. The Commonwealth invoked this access date in its

closing argument to suggest that the defendant was obsessed with the victim.

The defendant argues the last access dates should not have been admitted in evidence because the Commonwealth did not establish the accuracy or reliability of the computer's time-keeping function. There was no error.

Jurors may rely on their own common sense and life experience in their role as fact finders. Even in the year 2000, people commonly and reasonably relied on the accuracy of time-keeping mechanisms on computers, cellular telephones, and other electronic devices. Evidence that a time stamp indicates a particular time is a sufficient basis for a jury to conclude that the relevant activity took place at that time, particularly when there is no evidence to the contrary in the record.¹⁰

b. Screen shots. McLean testified regarding a number of screen shots taken from the defendant's computer. The defendant objects to the admission of screen shots from the astrology program and the family tree program.

When McLean opened the astrology program, the default screen showed the victim's name at the top. McLean did not

¹⁰ The lack of a meaningful, limiting principle is another basis to reject the defendant's reasoning. Must a Swiss watchmaker have to testify every time the owner of a Swiss watch relies on his watch to testify as to the time of day? Must the city planner be called to verify a witness's reference to a street sign as a basis for testifying what street occupies a particular location? To ask the question is to answer it.

enter the victim's name. He explained that the default screen was determined by data and settings for the program contained in other files on the computer. Without entering any other information, McLean scrolled down through the menu choices that the program displayed, which showed the victim's name, birth horoscope, birth date, time of birth, and birth location. McLean then chose "select" on the victim's name, causing the program to display additional information.

McLean similarly explained that the family tree program referenced data contained in other files in the computer, including files labeled using the victim's last name. When McLean opened the family tree program, it defaulted to the victim's information based on the computer's existing settings. The Commonwealth introduced several screen shots from the program that displayed only when McLean himself made certain selections within the program. McLean could not determine whether the defendant had made the same selections.

The defendant objects to the admission of the screen shots that only displayed following McLean's selections in each of the programs. The defendant argues the screen shots were inadmissible because the Commonwealth failed to demonstrate (1) the reliability of the software; and (2) that the defendant used the software in the manner represented by the Commonwealth.

No reversible error occurred. We reject the defendant's first argument and partially reject the second. McLean's testimony sufficiently demonstrated how the software worked. However, all but one of the screen shots were inadmissible because the Commonwealth could not demonstrate that the defendant actually accessed the same information. One screen shot -- the only one directly inculcating the defendant -- was properly admitted. The remainder were either cumulative or innocuous and did not prejudice the defendant.

The Commonwealth established the reliability of the programs. See Commonwealth v. Torres, 453 Mass. 722, 723, 737 (2009). McLean carefully explained how each of the programs worked, as relevant to this case. He stated how the programs incorporate settings and data stored in other files on the computer, and that the settings and data on the defendant's computer caused the programs to display the victim's information by default. The defendant presented no evidence to the contrary, and the jury were entitled to credit McLean's explanation. Commonwealth v. James, 424 Mass. 770, 785 (1997).

The erroneously admitted screen shots did not prejudice the defendant. In Commonwealth v. Williams, 456 Mass. 857, 868-869 (2010), we found an electronic message inadmissible when the proponent provided no foundation identifying who sent the message, even though foundational testimony established that the

sender must have had access to a particular Web page.

Similarly, McLean did not know whether the defendant had ever accessed the information depicted in the screen shots. Without evidence that the defendant had accessed the screen shots, they had no tendency to affect the probability of any material fact. See Mass. G. Evid. § 401 (2016).

However, most of the improperly admitted screen shots contained only general information regarding the victim and her family that was cumulative of much more compelling evidence from a multiplicity of sources that the defendant was obsessed with the victim. Given the wealth of other admissible evidence on that point, the screen shots admitted in error were cumulative. See Commonwealth v. Esteves, 429 Mass. 636, 640 (1999) (inadmissible hearsay may not be prejudicial where cumulative); Commonwealth v. Davis, 54 Mass. App. Ct. 756, 765 (2002) (same).

The only screen shot that was properly admitted depicted a mailing label from the family tree program. The label contained the name "Sebastiano Passanisi" and a Malden address. The victim's downstairs neighbor testified the mailing label on the package contained the name "Lois Passanisi" (Sebastiano's wife and the victim's sister) with a Malden address. Lois Passanisi had not lived in Malden in the roughly thirty years prior to the victim's death. Even when she did live in Malden, her last name was not Passanisi, and the home where she resided was not in her

name. Nor had Sebastiano Passanisi lived in Malden at any point in the preceding thirty years. The defendant also told Dubis that he had used the address of the victim's sister as the return address on the package. Even though McLean could not testify that the defendant had seen the mailing label, the jury reasonably could have inferred that the source of the inaccurate information on the package containing the bomb was the family tree program on the defendant's computer. Cf. Williams, 456 Mass. at 868-869.

5. Use of victim's testimony from prior proceedings. At trial, the Commonwealth introduced in evidence transcripts of the victim's testimony from earlier proceedings involving both the defendant and the victim. One transcript came from a pretrial dangerousness hearing stemming from charges against the defendant for malicious destruction of property. The other transcript contained the victim's testimony from a bail revocation hearing, following the defendant's violation of the victim's restraining order against him.¹¹

¹¹ For the first time on appeal, the defendant objects to the manner in which the transcript was presented to the jury. The victim's testimony was read aloud by an assistant district attorney (ADA), while another ADA read the questions on direct and defense counsel read the questions on cross-examination. The defendant argues that allowing an ADA to read the victim's answers risked confusing the jury as to the prosecutor's role in the case. We disagree. The ADA was not sworn as a witness, and the trial judge instructed the jury that the ADA was reading from a transcript containing the victim's testimony. "We

In her testimony from each proceeding, the victim identified the defendant as an individual committing certain prior bad acts, which were admissible "to show motive . . . and to show the entire relationship between the defendant and the victim" (citations omitted). Commonwealth v. Drew, 397 Mass. 65, 79-80 (1986). See Mass. G. Evid. § 404(b) (2016). In her testimony from one transcript, the victim identified the defendant as the individual who, on two occasions, poured battery acid into the gasoline tank of her motor vehicle. In the other transcript, she testified that the defendant drove by the restaurant where she worked, in violation of his restraining order.

The defendant makes two arguments related to the admission of the transcripts. First, the victim's testimony from the hearings was not admissible because it does not fall within the prior recorded testimony exception to the rule against hearsay and its introduction violated his confrontation rights under the Sixth Amendment and art. 12. The defendant did not object at trial to the transcripts based on the limits of the prior recorded testimony exception or constitutional grounds. We review any error to determine whether it created a substantial

generally presume that a jury understand and follow limiting instructions . . . and that the application of such instructions ordinarily renders any potentially prejudice harmless" (citation omitted). Commonwealth v. Crayton, 470 Mass. 228, 251 (2014).

likelihood of a miscarriage of justice. See Commonwealth v. Cintron, 438 Mass. 779, 783 n.2 (2003). The admission of the victim's prior testimony under oath did not create such a likelihood.

Second, the defendant argues that the trial judge improperly restricted his ability to impeach the victim's prior testimony using video recordings she had made of the defendant purportedly pouring battery acid into the gasoline tank of her vehicle. At trial, the defendant objected to the denial of the requested use of the recordings. There was no error.

a. Admissibility of victim's prior testimony. "We need not decide the admissibility of [the victim's] testimony as prior recorded testimony under our common law rule. If the standards of the confrontation clause are met in the admission of [the victim's] testimony, the interests of justice test applied under G. L. c. 278, § 33E, is also met." Commonwealth v. Trigones, 397 Mass. 633, 638 (1986). Accordingly, we review the admission of the prior recorded testimony only to determine whether it offends the defendant's confrontation rights. We conclude it does not.

Admitting prior testimony does not violate the defendant's confrontation rights when the declarant is unavailable, as a matter of law, to testify and "the defendant has had an adequate prior opportunity to cross-examine the declarant." Commonwealth

v. Hurley, 455 Mass. 53, 60 (2009), citing Crawford v. Washington, 541 U.S. 36, 57-59 (2004). Under the Sixth Amendment and art. 12,¹² five factors determine whether the defendant had a sufficient opportunity to cross-examine the declarant at the prior proceeding: (1) the declarant was under oath, (2) the defendant was represented by counsel, (3) the proceeding took place before a record-keeping tribunal, (4) the prior proceeding addressed substantially the same issues as the current proceeding, and (5)¹³ the defendant had reasonable opportunity and similar motivation on the prior occasion for cross-examination of the declarant. Hurley, supra at 60. The only dispute in this case is whether the prior proceedings were addressed to "substantially the same issues" for which the prior recorded testimony was admitted at trial, and whether the defendant had a similar motive to cross-examine the witness. We answer both questions in the affirmative.

¹² In Hurley, 455 Mass. at 59-60 & n.12, we dealt only with the Sixth Amendment, not art. 12. However, "in cases like this one involving the hearsay rule and its exceptions, we have always held that the protection provided by art. 12 is coextensive with the Sixth Amendment." Commonwealth v. Housewright, 470 Mass. 665, 670 n.7 (2015), quoting Commonwealth v. DeOliveira, 447 Mass. 56, 57 n.1 (2006). On the facts of this case, we similarly decline to extend the protections of art. 12 beyond the Sixth Amendment's protections.

¹³ In Hurley, 455 Mass. at 60, we treated the fourth and fifth factors as one factor. Here, we acknowledge they are distinct requirements.

The prior proceeding need not be addressed to precisely the same issue and the defendant need not have had precisely the same motive for cross-examination. See id. at 60. The similarity must be sufficient to provide the "trier of fact . . . a satisfactory basis for evaluating the truth of the prior statement." Id. at 62-63. The defendant's right to confrontation does not guarantee "cross-examination that is 'effective in whatever way, and to whatever extent, the defense might wish.'" Id. at 62, quoting Delaware v. Fensterer, 474 U.S. 15, 20 (1985) (per curiam). Rather, the confrontation clause protects the defendant's right to test the evidence presented against him by the sovereign through the crucible of cross-examination.

We previously have considered whether a defendant had a sufficiently similar motive on cross-examination in a prior proceeding for purposes of the confrontation clause, when the prior proceeding arose from the same underlying conduct. For example, a declarant's prior testimony from a pretrial dangerousness hearing pursuant to G. L. c. 276, § 58A, may be sufficiently similar when introduced at a subsequent trial of criminal charges for the same conduct. Hurley, 455 Mass. at 61-62.

In Commonwealth v. Canon, 373 Mass. 494, 500-501 (1977), cert. denied, 435 U.S. (1978), we affirmed the admission of

prior testimony from a civil contract dispute, in which the burden of proof requires only a finding by a preponderance of the evidence, in a subsequent criminal proceeding.¹⁴ During the contract dispute, one of the contracting parties defended an allegation of breach of contract by arguing that the contract was illegal and therefore unenforceable. Id. The plaintiff in the civil dispute -- a public official -- was subsequently prosecuted for violating a conflict of interest law by entering into the contract. Id. at 495. The legality of the agreement was at issue in both cases. Id. at 500-501. We concluded the issues and motivation on cross-examination were sufficiently similar for confrontation purposes, notwithstanding differences in the burdens of proof and the tactical direction of cross-examination. Id.

In this case, the issues and the defendant's motive on cross-examination at the prior proceedings were sufficiently similar to satisfy the confrontation clause. See Hurley, 455 Mass. at 61-62; Canon, 373 Mass. at 500-501. Although the victim's testimony at the prior proceedings dealt with different underlying conduct -- whether the defendant had damaged her

¹⁴ Although we decided Commonwealth v. Canon, 373 Mass. 494 (1977), cert. denied, 435 U.S. (1978), prior to Crawford, we nonetheless considered the similarity of the motive on cross-examination to determine whether the prior testimony was sufficiently reliable, under the former rule of Ohio v. Roberts, 448 U.S. 56, 65-66 (1980).

vehicle and not whether the defendant had murdered her -- her testimony was admitted at the current proceeding to establish only that the defendant had in fact damaged the victim's vehicle. The prior testimony focused on her identification of, and her hostile relationship with, the defendant. These issues had been subject to adequate cross-examination at the prior proceedings. The defendant was permitted to introduce that cross-examination, in addition to other inconsistent statements, to undermine the victim's credibility, the reliability of her identification of the defendant as the perpetrator of the prior bad acts, and the hostile nature of their relationship. In many instances, the cross-examination of the victim in the prior proceedings closely resembled the defendant's cross-examination of other witnesses at trial who had personal knowledge of the defendant's relationship with the victim.

The prior recorded testimony was admitted at trial only to prove the bad act, as relevant to the hostile relationship, rather than the conduct forming the basis of the murder charges. The issues at the prior proceedings and at the murder trial were therefore sufficiently similar to permit the jury to determine the credibility of the victim's testimony from those earlier proceedings, Hurley, 455 Mass. at 60, satisfying the confrontation clause and our review pursuant to G. L. c. 278, §

33E.¹⁵ See Canon, 373 Mass. at 500-501. See also People v. Sierra, 482 Mich. 1107, 1109-1110 (2008) (Kelly, J., dissenting) (dissenting from denial of appeal, because lower court may have erred in finding that testimony from trial of different defendant on related drug charges did not satisfy similarity requirement); State vs. Stein, Court of Appeals of Wash., Nos. 31980-2-II & 32982-4-II, slip op. at pars. 105-111 (August 7, 2007, amended August 21, 2007) (affirming admission of prior testimony from real estate dispute in subsequent murder trial).

b. Restriction on use of video recordings to impeach victim's prior testimony. At trial, the defendant moved to introduce two video recordings, created by the victim, that purportedly showed the defendant pouring battery acid into the gasoline tank of her vehicle. Originally, the Commonwealth sought to introduce the recordings, but the defendant objected

¹⁵ When the Commonwealth offers an out-of-court statement in a criminal case, the evidentiary and potential confrontation clause issues can prove challenging. The following conceptual approach may be helpful: First, is the out-of-court statement being offered to establish the truth of the words contained in the statement? In other words, is the out-of-court statement hearsay? If the out-of-court statement is offered for any purpose other than its truth, then it is not hearsay and the confrontation clause is not implicated. Second, if the evidence is hearsay, does the statement fall within an exception to the rule against hearsay? Third, if the hearsay falls within an exception, is the hearsay "testimonial"? Fourth, if the hearsay is testimonial, has the out-of-court declarant been previously subject to cross-examination and is the out-of-court declarant "unavailable" as a matter of law, such that the testimonial hearsay does not offend the confrontation clause?

on the grounds that they were "dark and murky" such that the "person's face is unable to be seen." The trial judge excluded the recordings.

Subsequently, the defense sought to admit the recordings for two purposes: (1) to impeach the victim's prior recorded testimony in which she identified the defendant, and (2) to demonstrate in the defense's case that the defendant was not the individual captured in the recordings. On appeal, the defendant argues only that the trial judge erred with respect to the first purpose.¹⁶ The trial judge did not err in denying the defendant's motion.

A trial judge has discretion to determine the scope of cross-examination. Mass. G. Evid. § 611(a), (b) (2016). The trial judge permissibly determined that the recordings served little, if any, value to impeach the victim's identification of the defendant as the individual pouring battery acid into her vehicle's gasoline tank. The victim's testimony was based on her own observations, which differed from what the recordings captured, as she did not remain at the same vantage point as the

¹⁶ Any error as to the second purpose did not create a substantial likelihood of a miscarriage of justice. The defense would have used the recordings only in an effort to disprove a prior bad act, a collateral matter cumulative of other evidence showing a hostile relationship. See Commonwealth v. Perez, 411 Mass. 249, 260-261 (1991) (even if erroneously admitted, evidence that was merely cumulative was harmless beyond reasonable doubt).

video recorder. See Commonwealth v. Pettijohn, 373 Mass. 26, 30 (1977) (misidentification by one witness properly excluded as irrelevant for purposes of impeaching identification by another witness); Pettijohn v. Hall, 599 F.2d 476, 480 (1st Cir.), cert. denied, 444 U.S. 946 (1979) (same). The trial judge reasonably determined that the defense should not be permitted to use the recordings solely for impeachment purposes.

Conclusion. We have reviewed the entire record on both the law and the facts pursuant to our obligation under G. L. c. 278, § 33E. We have determined that any errors identified above do not, individually or cumulatively, entitle the defendant to relief, as the interests of justice do not require the entry of a verdict of a lesser degree of guilt or a new trial.

Judgment affirmed.