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IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

FIRST APPELLATE DISTRICT

DIVISION TWO

THE PEOPLE,

Plaintiff and Respondent,

v.

JOHN DAVIS,

Defendant and Appellant.

A120428

(San Francisco County
Super. Ct. No. 190226)

I. INTRODUCTION

A jury found John Davis guilty of murder (Pen. Code, § 187¹) and also found true special circumstance allegations that the murder was committed in the course of rape and burglary (§§ 190.2, subd. (a)(17)(C) & (G)). Davis was sentenced to life in prison without parole.

On appeal, Davis contends the judgment must be reversed and a new trial ordered because: (1) the jury conducted an unauthorized experiment; (2) the trial court excluded scientific material relevant to the prosecution's DNA evidence; (3) the jury was told that Davis exercised his *Miranda*² rights during a police interview; (4) the prosecutor misled the jury during closing argument; and (5) Davis was denied his constitutional right to confront witnesses against him.

¹ Statutory references are to the Penal Code unless otherwise indicated.

² *Miranda v. Arizona* (1966) 384 U.S. 436 (*Miranda*).

In a decision filed September 14, 2010, this court found that juror misconduct and multiple violations of Davis's constitutional right to confrontation required us to reverse the judgment and remand this case for a new trial. Thereafter, the People filed a petition for review and, on December 21, 2010, the California Supreme Court granted the People's petition but deferred taking further action in this case pending consideration and disposition of cases already before the court which involved the federal constitutional right to confrontation. (*People v. Davis* (Dec. 21, 2010) 2010 Cal. LEXIS 13302 (S187515).)

On May 22, 2013, the Supreme Court issued another order transferring this case back to this court with instructions to vacate our September 2010 decision and to reconsider the cause in light of four cases: *Williams v. Illinois* (2012) ___ U.S. ___ [132 S.Ct. 2221] (*Williams*); *People v. Lopez* (2012) 55 Cal.4th 569 (*Lopez*); *People v. Dungo* (2012) 55 Cal.4th 608 (*Dungo*); and *People v. Rutterschmidt* (2012) 55 Cal.4th 650 (*Rutterschmidt*). (*People v. Davis* (May 22, 2013) 2013 Cal. LEXIS 4431 (S187515).)

The four new cases we have been instructed to consider are relevant to only one of the many claims of error advanced on appeal: Davis's contention that he was denied his constitutional right to confront witnesses against him. Therefore, we adopt without change and reaffirm in this opinion the parts of our September 2010 opinion that do not pertain to Davis's constitutional right to confrontation. In the final part of this opinion, we reconsider Davis's confrontation claim. As we will explain, the 2012 cases listed above support the conclusion that Davis was denied his constitutional right to confront witnesses against him.

II. STATEMENT OF FACTS

A. *The December 1985 Murder*

On December 4, 1985, at approximately 8:30 p.m., Bobby Adams went to meet his girlfriend, Barbara Martz, at her home at 1510 25th Street in the Potrero Hill district of San Francisco. Adams found the front door to the house open and Martz lying dead on the floor inside. Martz was nude and had been stabbed and cut several times. The police

found a blood stained knife that had been taken from Martz's kitchen on a walkway between her house and the street.

An autopsy was performed by a Dr. Duazo whose report stated that Martz died from loss of blood due to multiple stab wounds. According to the autopsy report, sperm were found in smears taken from Martz's vagina and perineal area. Bruising on the victim's arms and legs was consistent with a struggle. Swabs with blood and sperm recovered from Martz's body were placed in a sealed envelope and stored in a freezer at the San Francisco Medical Examiner laboratory.

In July 1986, a teenager went into the basement of a public housing project located at 1626 25th Street in San Francisco, in search of his younger relatives. In this underground play area, which neighborhood kids referred to as the "shack," the boy found credit cards that belonged to Martz. He turned them into the police and then showed the officers the shack, where they recovered Martz's purse and wallet.

B. *The 2002 Investigation*

In 2002, the Martz homicide file was assigned to San Francisco Police Investigator James Spillane who reopened the case to determine if there was evidence that could be submitted for DNA analysis. Shortly thereafter, Spillane took possession of the envelope of evidence collected during Martz's autopsy from the San Francisco Medical Examiner's office.

1. *The 2002 DNA Testing*

In March 2002, Dr. Cydne Holt, supervisor of the DNA section of the Forensic Division of the San Francisco Police Department, received a lab request from Spillane to analyze the Martz autopsy evidence. From the vaginal swabs that were collected during the autopsy, Holt generated a DNA profile of the contributor of the sperm sample (the DNA donor profile).

Using a process called differential extraction, Holt isolated a "clean" single-source sperm cell fraction from the swabs. She then used a procedure called polymerase chain reaction (PCR) to generate the DNA donor profile by focusing on specific DNA locations on the cell sample. Loci is a scientific term for a specific location on a chromosome

which contains short tandem repeat (STR) strands of DNA that have been identified as useful for DNA profiling. In this case, Holt used the PCR method to (1) locate STR strands at nine specific loci, (2) amplify just those areas, and (3) assign a type to those areas by means of a computer program which then generated a string of numbers that comprised the DNA profile.

In June 2002, the DNA donor profile was loaded into the California State Combined DNA Index System (CODIS) database and, a few months later, the computer reported a match with a DNA sample from Davis that had been loaded into the database as an administrative consequence of a prior robbery and burglary conviction. (See § 295, et seq.) Police investigators used the database match to obtain a warrant pursuant to which they collected a DNA sample from Davis on October 10, 2002.

Bonnie Cheng, a criminalist at the Forensic Division of the San Francisco Police Department, used the PCR process to analyze Davis's DNA and develop his DNA profile. Cheng concluded that Davis's DNA profile matched the DNA donor profile that Holt had generated from the autopsy sperm sample at all nine loci.

2. *The December 2002 Interview*

In December 2002, Officer Spillane interviewed Davis who was in prison at the time. Spillane told Davis that he was looking into an old case and wanted to “rule people in or rule people out as the suspects.” Davis agreed to talk with Spillane and was read and waived his *Miranda* rights. In response to questioning, Davis said that he grew up in the Potrero Hill area of San Francisco, that his address was 1710 25th Street and that he had family who still lived there.

Using Polaroid photographs for orientation, Spillane explained to Davis that the police had found some property under the foundation of a building near the building where Davis grew up. He then showed Davis pictures of Martz's purse and wallet and asked if he had seen them before. Davis responded that he had not. Spillane said the items were found a long time ago and asked if there was any chance Davis might have seen them. Davis responded that “[i]t's possible” and said that the wallet looked “kinda familiar.” Davis confirmed that, when he lived in that area, he and his friends used to go

into the underground areas of those buildings, that they would make forts out there, and that they found all kinds of things under there, like syringes, beer cans, knives, a gun, and that they once found a machete. Spillane asked if there was any chance that Davis may have touched the purse or wallet that were depicted in the photographs. At first, Davis said he did not think so. But, then Davis admitted that if he had found the wallet when he was a kid, he probably would have opened it and that it was possible that happened.

Spillane then showed Davis several pictures of Martz's building, both inside and out. Davis said he recognized the building but then repeatedly denied that he ever burglarized that house. Then Spillane showed Davis several pictures of Martz and asked whether he had ever seen that woman before. Davis said he had not. When Spillane said that Martz had lived in the house depicted in the other photographs, Davis seemed surprised that a white woman lived in that neighborhood. Davis repeatedly stated that he did not recognize the woman at all. Spillane asked if Davis had had a conversation with the woman 17 years prior, in 1985, would he remember it. Davis said he did not know, but that she did not look familiar to him.

Spillane then asked Davis several questions about his sexual partners in 1985. At one point, Davis said "What is this all about?" to which Spillane responded: "This woman lived in this house in 1985 and on December the 4th of that year, she was raped and murdered in her home." Spillane also said that the "problem" was that the semen from the rapist had been "DNA tested" and that it matched Davis. Davis responded "Oh hell no."

Spillane shared his hypothesis that Davis went into Martz's house that day with the intent to do a burglary, that he was surprised and scared when the woman came home, which was understandable, and that he took the knife from her kitchen just to scare her so he could get out. Spillane said he had to go to the District Attorney, but that he wanted to first give Davis a chance to tell his side of the story. Davis said he did not have a side of the story because it wasn't him and that was all he could say. Davis repeatedly stated that he did not rape anyone. Spillane suggested that Davis had been carrying a "kind of a poison" around with him, that he thought Davis was remorseful and felt badly and that

the woman's family needed closure. Davis responded: "I ain't got no more to say to you 'til I can get an attorney, you know. This is fucked up."

C. *The Case Against Davis*

An August 12, 2003, three-count indictment charged Davis with murder with special circumstances, rape and burglary. Shortly thereafter, the rape and burglary charges were dismissed on the ground that the statute of limitations had expired.

In 2005, Bonnie Cheng reanalyzed both the sperm-cell sample from the Martz autopsy and Davis's October 2002 DNA sample. Again using the PCR method, Cheng examined four additional STR strands in the samples so that the results could be combined with the earlier test results to generate 13-locus DNA profiles. Cheng then determined that the 13-locus donor profile and the 13-locus Davis profile matched at all 13 locations.³

A jury trial commenced August 6, 2007. The Martz autopsy report was admitted into evidence as a business record, although Dr. Duazo did not appear at trial. Dr. Amy Hart, the San Francisco Medical Examiner at the time of trial, testified about the autopsy that Dr. Duazo performed, about the evidence that was recovered and preserved during that autopsy and about the victim's injuries and cause of death.

Officer Spillane testified about his December 2002 interview with Davis and an audiotape recording of that interview was played for the jury. Thereafter, the prosecutor asked Spillane several questions about the interview and his investigation of this case. During that questioning, Spillane stated that, at some point "apart from the interview"

³ Holt testified at trial that Cheng performed this additional testing because of a "desire to develop more information." According to Holt, experts have identified 13 loci which are particularly useful for DNA typing. In this case, the PCR testing that was performed in 2002 was done with a Profiler Plus kit which isolates nine STR strands at nine loci on the DNA sample. Then, in 2005, Cheng used a Cofiler kit to look at the additional four STR strands at four other loci on the samples.

that was played for the jury, Davis reported that he lived at 1710 25th Street during the time period in late 1985 to early January 1986.⁴

Spillane testified that 1620-1638 25th Street, the complex where Martz's purse and credit card were found, is located in between Davis's former residence at 1710 25th Street and Martz's former residence at 1510 25th Street. Spillane testified that he walked from the former Davis residence to the buildings where the property was recovered in approximately 70 seconds and from there to the former Martz residence in 35-40 seconds, completing the entire trip at a normal walking pace in "about just under two minutes."

Spillane also testified that he obtained information about Davis's brothers as part of his investigation, but that he did not speak with them or any of Davis's family. Spillane confirmed that Davis has four brothers, two older and two younger than him, and that they all used their mother's maiden name as their last name, which was not Davis.⁵

During the trial in this case, the court permitted the jury to ask questions of the witnesses. At the conclusion of Spillane's testimony, a juror inquired whether Spillane had obtained a DNA reference sample from anyone other than Davis. Spillane responded that he had not.

⁴ On appeal, Davis contends that there was no evidence regarding his place of residence at the time of the murder. However, he overlooks the following colloquy from Spillane's testimony:

"Q. Did Mr. Davis report to you his address at that time period in late 1985 to early January 1986?

"A. Yes.

"Q. What was the address?

"A. 1710 25th Street.

"Q. That was apart from the interview that we heard?

"A. Yes."

⁵ Contrary to the People's assumption/contention, this testimony by Spillane does not establish that Davis's brothers were half-brothers. We have not located any evidence to warrant that assumption.

The prosecution introduced its DNA evidence through the testimony of Dr. Holt who, by that time, was the Director of the San Francisco Police Department's Forensic Services Division. Holt testified about the DNA testing she performed in 2002 and also about the tests that Bonnie Cheng conducted in 2002 and 2005. Cheng did not testify at trial. Holt told the jury that the 13-locus DNA donor profile and the 13-locus Davis profile matched.

Holt also testified that Bonnie Cheng had performed a statistical analysis which established that the probability that a "random unrelated person" would by chance possess the same male DNA profile detected on the sperm fractions recovered during the autopsy was "one in seven quintillion for U.S. Caucasians, one in 25 quadrillion for African-Americans, one in 52 quintillion for California Hispanics, and one in 99 quintillion for the general Asian population."

The trial judge asked Holt the following question, which had been asked by a member of the jury: "If Dr. Holt were able to test Mr. Davis' brother's DNA, would she expect to see matches, and if so how, approximately how many markers or loci?" Holt gave the following response: "I can't say absolute numbers for that. I can say that the amount of similarity between siblings is expected to be closer than between unrelated people. I can say that the amount of similarity between full sibling, meaning both biological parents are the same, would be higher than between siblings where only one parent is shared. [¶] And I don't know particulars here necessarily, so I can't say the number that is likely. I mean those could be estimated, but I haven't done that type of statistical analysis in this case."

The jury began deliberations on August 17, 2007, and returned a verdict on August 27, finding Davis guilty of murder and that both special circumstance allegations were true. The trial court denied a motion for new trial and sentenced Davis to life in prison without parole.

III. DISCUSSION

A. *Jury Misconduct*

1. *Issue Presented and Standard of Review*

In his motion for a new trial, Davis argued, among other things, that the jury committed misconduct during deliberations by using evidence from outside the record and the expertise of one particular juror to calculate the likelihood that one of Davis's brothers matched the 13-locus DNA donor profile. In this court, Davis contends that the lower court erred by denying him a new trial on this ground.

“The trial court is vested with broad discretion to act upon a motion for new trial. [Citation.] When the motion is based upon juror misconduct, the reviewing court should accept the trial court's factual findings and credibility determinations if they are supported by substantial evidence, but must exercise its independent judgment to determine whether any misconduct was prejudicial.” (*People v. Dykes* (2009) 46 Cal.4th 731, 809.)

In the present case, it appears that the trial court did not make any factual findings or credibility determinations. Indeed, we have been unable to confirm that the court conducted a hearing regarding the alleged misconduct before it denied the motion for new trial. We do have before us, however, pleadings and declarations relating to the juror misconduct motion, all of which were filed under seal in the lower court and subsequently unsealed by order of this court. We assume, absent evidence or any contention to the contrary, that the trial court considered these declarations in reaching its conclusion that no prejudicial misconduct occurred.⁶

⁶ Portions of the juror declarations that pertained to statements made or conduct that occurred in the jury room were admissible under Evidence Code section 1150, subdivision (a). Those statements “are evidence of objectively ascertainable overt acts that are open to sight, hearing, and the other senses and are therefore subject to corroboration.” (*People v. Steele* (2002) 27 Cal.4th 1230, 1259-1267 (*Steele*).)

2. *The Juror Declarations*

Davis's evidence that an improper experiment was performed consisted of the declaration of a juror we refer to herein as C.D.⁷

C.D. stated that “[a] number of jurors mentioned that they were troubled that no calculation of the likelihood of a brother of John Davis being the source of the sperm was made,” and that several jurors attempted to calculate that likelihood, some of whom used their calculators. According to C.D., one juror shared his opinion, which was based on his “own personal medical experience,” that whatever the odds were that a brother was a match, “it was a very large number.” This juror gave the others “a lot of information about genetics that had not been discussed in trial.” The jury used this information and their own personal experience to discuss “statistical experiments” that could be done to address the concern of several jurors that there was no independent evidence regarding the likelihood of a match with a brother.

C.D. also stated that one juror calculated the odds of a brother being a match as one in eight million and told the others that this was a conservative estimate. According to C.D., “[i]n the end, we chose the one-in-eight million calculation as the “best estimate we could come up with for use in our deliberations.”

In its opposition to the new trial motion, the prosecution argued that “[a]lthough jurors did estimations of the likelihood of a brother having the same DNA profile as Defendant, these actions do not rise to the level of misconduct recognized by the courts.” It reasoned that the jury calculations were proper because they did not utilize extrinsic evidence but based their estimates on evidence presented at trial. The prosecution attempted to support this claim with declarations from several jurors.

All of the jurors who submitted declarations in this case confirmed that the jury spent time discussing the likelihood that one of Davis's brothers might share his DNA profile, although many downplayed the significance of this issue and insisted that the calculations were based on the evidence presented at trial.

⁷ For privacy sake, we will refer to jurors by their initials rather than their names.

Juror P.F. disclosed in his declaration that he proposed a formula to the jury for calculating the likelihood that a brother might have the same DNA profile as Davis. P.F.'s juror questionnaire, which is part of the appellate record, reflects that he is a psychology professor with a medical degree.

In his declaration, P.F. stated that he used the "fact that we inherit one allele from our mother and one allele from our father at each of the 13 locations" to formulate the expression of " $1/4$ to the 13th power." P.F. stated that he then "did simple multiplication by hand in the jury deliberation room in front of my fellow jurors ($1/4$ times $1/4$ times $1/4$ times $1/4$. . .)." P.F. recalled that he described his estimate to other jurors as conservative, although he never referred to it as the best estimate.

P.F. also explained that he proposed this formula after he failed to dissuade a particular juror from speculating that if defendant had a brother, that brother might have the same DNA profile. P.F. stated that he "addressed this juror's speculation using high school level biology and high school level math to estimate for this juror the likelihood of a hypothetical brother with the same mother and father as the defendant having the same 13 loci profile as John Davis."

Other jurors from whom the prosecution obtained declarations made statements to the effect that the jury accepted P.F.'s formula as valid and that they used it to calculate the likelihood of brothers with matching DNA. For example, juror J.A. stated that "we did a numerical calculation based on the evidence at trial to estimate the chances of a brother having the same DNA," and that "several of us" did the calculation by hand "after we realized that the calculators on our phones would not work for this calculation."

Another juror, N.L., stated: "Since no statistical information was giving [sic] on the chances of two brothers matching at all 13 locations, we used the trial testimony that a person inherits one of their mother's two alleles and one of their father's two alleles at each location. This gives a 1 in 4 chance that the brothers would have a match at any one location. We then multiplied that number to the 13th power since there were 13 locations tested. I remember the result of the calculation being around either 1 in 8 million or 1 in 16 million. I do not recall any juror using a calculator."

Some jurors also acknowledged that one or two of the jurors shared specialized knowledge during deliberations. Juror P.S. stated that there was a doctor and a nurse on the jury, “but they did not bring their independent knowledge to bear on the deliberations—other than clarification of the evidence.” Juror J.S. stated that “[t]here were jurors with specialized knowledge in various fields that applied to the case. While they did use their expertise to analyze certain evidence presented at trial, at no time did any of the jurors express an opinion based on specialized information obtained from outside sources alone.”

3 *Analysis*

“It is not improper for a juror, regardless of his or her educational or employment background, to express an opinion on a technical subject, so long as the opinion is based on the evidence at trial. Jurors’ views of the evidence, moreover, are necessarily informed by their life experiences, including their education and professional work. A juror, however, should not discuss an opinion explicitly based on specialized information obtained from outside sources. Such injection of external information in the form of a juror’s own claim to expertise or specialized knowledge of a matter at issue is misconduct. [Citations.]” (*In re Malone* (1996) 12 Cal.4th 935, 963 (*Malone*).

In *Malone*, the court found that a juror in a murder trial committed misconduct by expressing to her fellow jurors “negative opinions on the reliability of petitioner’s polygraph evidence, based on her own professional study of psychology.” (*Malone, supra*, 12 Cal.4th at p. 963.) The court acknowledged that statements by this juror which merely reflected the evidence and argument presented at trial were “less egregious,” but nevertheless found that the juror’s assertion that her views were “drawn from her own professional knowledge . . . was an improper injection of extrajudicial specialized information into the deliberations.” (*Id.* at p. 963, fn. 16.)

In contrast to *Malone*, there was no improper injection of extrajudicial specialized information into the jury deliberations in *Steele, supra*, 27 Cal.4th at pages 1259, 1265-1267. *Steele* was a death penalty case in which appellant contended that four jurors with experience in the military and in Vietnam committed misconduct by offering their

expertise to the other jurors. The *Steele* court disagreed, finding that the views that were allegedly shared by the jurors in question “were not contrary to, but came within the range of, permissible interpretations” of the evidence presented at trial regarding appellant’s military training and experience in Vietnam and its potential effect on his crimes. (*Id.* at p. 1266.)

The *Steele* court reasoned that there was extensive trial evidence pertaining to these issues, much of which was “susceptible to various interpretations.” (*Steele, supra*, 27 Cal.4th at p. 1266.) The court found that “[a]ll the jurors, including those with relevant personal backgrounds, were entitled to consider this evidence and express opinions regarding it.” (*Ibid.*) As the *Steele* court explained, “it would be an impossibly high standard to permit these jurors to express an opinion on this evidence without relying on, or mentioning, their personal experience and background.” (*Id.* at p. 1267.) The court also acknowledged, however, that “[a] fine line exists between using one’s background in analyzing the evidence, which is appropriate, even inevitable, and injecting ‘an opinion explicitly based on specialized information obtained from outside sources,’” which constitutes misconduct under *Malone, supra*, 12 Cal.4th at page 963. (*Steele, supra*, 27 Cal.4th at p. 1266.)

Applying these principles to the present case, we conclude misconduct occurred. There is no dispute that the jury performed a calculation in order to estimate the likelihood of a DNA match among brothers. Furthermore, the evidence clearly shows that the jurors used a formula to conduct this calculation that was not part of the evidence presented at trial. That formula was supplied to the jury by one of its members, juror P.F., who had specialized knowledge and expressly identified himself as a specialist to his fellow jurors. Indeed, P.F. admitted that he shared his formula with the other members of the jury for the express purpose of dissuading them from “speculating” as to whether a brother might have perpetrated these crimes. This was not simply an interpretation of ambiguous evidence, as occurred in *Steele*, but an injection of extrinsic evidence by a specialist.

The People contend that there was no misconduct because the jury relied solely on the trial evidence and their own general knowledge to estimate the possibility that one of Davis's four brothers shared his DNA profile. This contention is simply not supported by the record before us. Several jurors, including, P.F., stated that the jury used the trial evidence that a person inherits one of their mother's two alleles and one of their father's two alleles at each loci. However, this particular piece of evidence was not the formula that the jury used to calculate the likelihood that brothers' DNA would match at the 13-loci that were tested in this case. That formula was supplied to the jury by one of its members, not by a trial witness.

In other words, in contrast to the situation in *Steele*, juror P.F. did not simply use his specialized knowledge to interpret the trial evidence. Rather, he used it to construct a formula that had no support in the trial record. His formula filled an evidentiary void that was expressly acknowledged by the prosecution's expert witness, Dr. Holt. As reflected in our foregoing factual summary, Dr. Holt testified that it was possible to estimate the likelihood of a matching DNA profile among brothers, but that she *did not* perform that analysis in this case.

4. Prejudice

"A juror's misconduct raises a presumption of prejudice, which may be rebutted by proof no prejudice actually resulted. [Citations.] 'A judgment adverse to a defendant in a criminal case must be reversed or vacated "whenever . . . the court finds a *substantial likelihood* that the vote of one or more jurors was influenced by exposure to prejudicial matter relating to the defendant or to the case itself that was not part of the trial record on which the case was submitted to the jury.'" [Citations.] . . . [¶] "The ultimate issue of influence on the juror is resolved by reference to the substantial likelihood test, an objective standard. In effect, the court must examine the extrajudicial material and then judge whether it is inherently likely to have influenced the juror.'" ' [Citation.] (*Malone, supra*, 12 Cal.4th at pp. 963-964.)

"Such "prejudice analysis" is different from, and indeed less tolerant than, "harmless-error analysis" for ordinary error at trial. The reason is as follows: Any

deficiency that undermines the integrity of a trial—which requires a proceeding at which the defendant, represented by counsel, may present evidence and argument before an impartial judge and jury—introduces the taint of fundamental unfairness and calls for reversal without consideration of actual prejudice. [Citation.] Such a deficiency is threatened by jury misconduct. When the misconduct in question supports a finding that there is a substantial likelihood that at least one juror was impermissibly influenced to the defendant’s detriment, we are compelled to conclude that the integrity of the trial was undermined: under such circumstances, we cannot conclude that the jury was impartial. By contrast, when the misconduct does not support such a finding, we must hold it nonprejudicial.’ [Citations.]” (*Malone, supra*, 12 Cal.4th at p. 964.)

The *Malone* court found that the prosecution rebutted a presumption of prejudice resulting from the fact that a juror injected specialized knowledge regarding polygraph evidence into the deliberations by “showing the externally derived information was substantially the same as evidence and argument presented to the jury in court.” (12 Cal.4th at p. 964.) As the court explained, “Because [the juror’s] assertions were substantially the same as evidence and argument presented at trial, her error was much less egregious than similar misconduct we have found warranted reversal. [Citations]. Viewed in context of the evidence at trial, the misconduct here does not support a finding that at least one juror was improperly influenced to petitioner’s detriment. (*Id.* at p. 965.)

In the present case, the formula proposed by juror P.F. and adopted by the jury during deliberations was not substantially the same as evidence presented at trial. Rather, as discussed above, the formula was proposed and adopted in order to fill an evidentiary void with respect to an issue that the jurors expressly identified as relevant to their deliberations. Furthermore, the juror declarations compel the conclusion that at least one juror, and likely many more than that, were improperly influenced by the misconduct to Davis’s detriment.

The People argue the misconduct that occurred in this case should be overlooked for two reasons. First, they contend that the entire matter was simply irrelevant. The People reason that, since there was absolutely no evidence that a brother was responsible

for these crimes, the jury's experiment could not have prejudiced Davis. However, the evidence regarding Davis's brothers, though brief, was not irrelevant and it unquestionably had an impact on this jury. As reflected above, one juror asked Officer Spillane whether other DNA profiles had been tested. There was also a question from a juror as to whether the prosecution's DNA expert had calculated the likelihood of a DNA match among brothers. The prosecution's tactical decision not to explore or more fully address these issues at trial certainly cannot be used to render them irrelevant.

Alternatively, the People argue that Davis was not prejudiced because the jury over-estimated the likelihood of a DNA match between brothers and, thus, the unauthorized experiments inured to Davis's benefit. Not surprisingly, Davis's appellate counsel argues the opposite is true, i.e., that the jury under-estimated the likelihood that brothers could have matching DNA.

As we have already established, the trial record does not contain any evidence regarding the likelihood that one of Davis's brothers matched his DNA. Nevertheless, both parties spend significant time proposing and defending formulas for making that calculation. At least Davis's appellate counsel attempts to ground his proposed formula in the record of pre-trial proceedings pertaining to the DNA evidence, which is before us on appeal. The People, by contrast, base their analysis on scientific reports and theories that were never presented to the lower court and that are not a part of the appellate record. For this reason, Davis has moved to strike the People's analysis from their appellate brief. The People attempt to justify their decision to provide this court with what they characterize as "the correct formulae, and variables to insert into those formulae" by pointing out that they provided citations to the formulae and data "which are readily accessible as public, published materials."

We would be inclined to grant the motion to strike if not for the fact that the competing formulas and analyses proposed by these parties on appeal reinforce our conclusion that Davis was prejudiced by the unauthorized jury experiment. The parties' lengthy and complex discussions undermine the People's efforts to characterize the jury's unauthorized experiment as nothing more than a high school level math problem. Like

appellate counsel on both sides of this case, the jury went outside the trial record for an answer they believed was relevant to the question of guilt. The resulting prejudice to Davis requires a reversal of this judgment.

B. *Evidence Pertaining to the Arizona Database*

Davis contends the trial court erred by excluding evidence of a report titled “Arizona Nine Plus Locus Match Summary Report” (the Arizona Report).

1. *Background*

a. *The Arizona Report*

In or around July 2005, Bicka Barlow, a deputy public defender in the San Francisco Public Defender’s office, filed a declaration in this case, seeking issuance of an out-of-state subpoena. In her declaration, Barlow explained that she had become aware that an employee of the Convicted Offender Section of the Arizona Department of Public Safety had discovered multiple instances in which a pair of individuals whose DNA samples were included in the Arizona Database matched each other at nine of thirteen loci. Barlow stated that she had contacted that employee and requested that she “memorialize her findings” in a letter. That request was declined. After consulting experts, Barlow had concluded that the Arizona data was relevant to this case because, among other things, it would “demonstrate the fallibility of the statistical calculations” that were done by the San Francisco Crime laboratory.

On August 24, 2005, the Honorable Mary Morgan, judge of the San Francisco Superior Court, issued a certificate for the production of out-of-state documents (see § 1334) requesting that a judge of the superior court for the State of Arizona, Maricopa County, issue an order directing the custodian of records of the Arizona Department of Public Safety, DNA Data Base Unit, to produce documents in this case including “[r]ecords of any matches within the Arizona state convicted offender database between two individuals of nine (9) or more loci within the thirteen (13) loci tested using Profiler Plus and Cofiler kits or the fifteen (15) locus Identifier kit.” On September 22, the Honorable James H. Keppel of the Maricopa County Superior Court acted upon Judge

Morgan's Certificate by issuing an order to show cause to the custodian of records of the Arizona Department of Public Safety, Product Documents/DNA Database Unit.

The custodian of records in Arizona produced the Arizona Report to the defense in this case. Although characterized as a report, the five-page document is a spread sheet of data unaccompanied by substantive analysis or any written explanation. The following statement appears at the bottom of each page of this report: "Prepared as a special report by court order. This report is not generated for or used by the Arizona Department of Public Safety Crime Laboratory for any statistical analyses. This report is property of the Arizona Department of Public Safety. Use of this document beyond the limitation of the court order by Judge Keppel is not authorized."

b. *The Discovery Motion*

The defense used the Arizona Report as support for a pre-trial motion to discover the California database that first identified Davis as a match to the DNA donor profile. Bicka Barlow testified on behalf of the defense at the discovery hearing. Barlow, who has a background in genetics, identified herself as an attorney-consultant to the defense in this case. Barlow testified that the Arizona Report showed that a study of the Arizona database of 65,000 people, produced 122 pairs of people who had DNA that matched at nine loci, 20 pairs of people who matched at 10 loci, one pair of people who matched at 11 loci, and one pair, who turned out to be siblings, who matched at 12 loci. Barlow testified that many experts in the field believed that the Arizona Study cast doubt on the validity of the random match probability methodology that was used in this case. She further testified that many experts believed they would find a 13-loci match among unrelated individuals in the California Database if they had access to it. At the conclusion of the lengthy discovery proceeding, Judge Morgan denied the defense motion to discover the California Database. That ruling is not at issue in this appeal.

c. *Dr. Holt's Trial Testimony*

Before the prosecutor called Dr. Holt to testify, she moved to prohibit the defense from questioning Holt about the Arizona Report. She argued the report was irrelevant and unduly prejudicial under Evidence Code section 352. The defense maintained that

the report was relevant because it undermined or at least called into question the reliability of the so-called “product rule,” which was used to calculate the statistical likelihood of a random match between Davis and the DNA donor profile. The trial court took the matter under submission and proceeded with the trial. Thereafter, the court interrupted Dr. Holt’s trial testimony in order to conduct an Evidence Code section 402 hearing.

During the section 402 hearing, defense counsel cross-examined Holt about the Arizona Report outside the presence of the jury. Counsel stated that he had sent Holt a copy of the report and asked whether she had looked at it. Holt responded that she had not. Holt testified that she had heard of the Arizona Report, but that she had not seen or read it and that she could not authenticate the document that defense counsel showed her. During questioning by the prosecutor, Holt testified that she was not aware of any study that concluded the Arizona Report cast any doubt on the reliability of the “product rule” methodology that was used to calculate the random match probability statistics in this case. The defense stipulated that the product rule was generally accepted in the scientific community.

Defense counsel then asked Holt to review the Arizona Report “between now and Monday morning.” The prosecutor objected and the trial court responded it would not “allow” that. The court explained: “As I indicated off the record, I think that what you really need to do is to bring in your own expert. This witness has not reviewed, relied upon, considered the information that you had asked her to. She did not, she is not basing her opinion on it in any way. And in order to get this testimony in, I believe that you’re gonna need to bring in your own expert.”

Thereafter, the defense called its “investigator” in this case, Bicka Barlow, to testify as an expert on the “intersection of the legal field and DNA evidence in the courtroom” Barlow has a masters degree in genetics and developmental biology and a law degree, and has previously been employed as a consultant expert in numerous criminal cases. She does not purport to be nor has she ever been qualified as an expert in the field of population genetics as it relates to human forensic identification.

Barlow testified that the Arizona Report consists of a “set of data” that can be and has been analyzed by experts who conduct statistical interpretation of DNA data. She also testified that experts had concluded that the Arizona Report undermines the established scientific procedures used to calculate population frequency statistics for human forensic DNA profiles. Barlow admitted, however, that she was not an expert in that area.

As the trial day drew to a close, the court indicated that it was “not impressed” by Barlow’s testimony thus far. Defense counsel responded that his other expert was in Southern California and that it would be impossible to have him in court by the following Monday morning. Defense counsel suggested that he could ask Barlow to communicate with the other expert and obtain a detailed declaration from him. The court responded that there would need to be an opportunity to cross-examine the expert and the problem was that the defense had failed to lay a proper foundation for the Report. Thereafter, the defense elicited additional testimony from Barlow about the content of the Arizona Report, but it did not produce another expert.

After the matter was submitted, the trial court ruled that “the study is not relevant in this particular case and any discussion or testimony through Ms. Holt, particularly would only . . . serve to confuse the jury, would constitute an undue consumption of time and under [Evidence Code section] 352, it will . . . not be referred to or provide the basis of any questioning to Ms. Holt.” The court reiterated that Dr. Holt had not referred to, considered or relied on the Arizona Report in formulating her opinions and that the report had not otherwise been established as a reliable publication. On its face, the court found, the document appeared unreliable because it was prepared during the course of some other litigation. Furthermore, the court found it was inappropriate for Barlow to act as co-counsel, investigator and also an expert witness in the same proceeding and that it would not give her testimony much weight.

When defense counsel argued that it should have wide attitude to cross-examine Holt, the court responded that the defense was attempting to “boot strap” by getting an irrelevant summary before the jury. The court clarified that it would not prevent the

defense from presenting its own expert, but that it could not get the summary into evidence through its examination of Dr. Holt.

d. *The Mueller Declaration*

The day after Dr. Holt completed her trial testimony, the defense sought clarification of the court's ruling regarding the admissibility of the Arizona Report. Outside the jury's presence, defense counsel stated that it was his understanding from an off-the-record discussion with the court that the finding that the report was irrelevant would "preclude the defense from bringing its own witness to affirmatively testify regarding those matters," and asked if that was a "fair statement." The court responded: "I found based on what you put before me at this time that it is irrelevant, that that particular study is irrelevant." The court also reiterated that it was "not excluding you from presenting an expert witness." It explained again that, based on the defense presentation, the court concluded that the report was not relevant. It also reiterated that if defense counsel believed it could change the court's mind, it was free to try, outside the presence of the jury.

The following day, the defense filed a "Declaration of Dr. Laurence Mueller." Mueller, a professor of Ecology and Evolutionary Biology at the University of California, Irvine, stated that he was familiar with the Arizona Report. Mueller further stated that he had reviewed documentation which led him to conclude that the Arizona Department of Public Safety searched for DNA matches in its database by using the same 13 loci that were used to test the evidence in the present case. Furthermore, Mueller stated he had no reason to question the authenticity of the Arizona Report and that the report "is the type of material that experts in this field generally rely upon."

Mueller opined that the results of that study "are scientifically relevant to every case in which DNA evidence is presented in conjunction with the standard Random Match Probability (RMP) statistical analysis." He also stated that the study undermined an essential underlying assumption of the RMP methodology and assessment. Mueller further stated that he had spoken with several "experts" who agreed with him that the Arizona Report was relevant and useable for purposes of statistical analysis.

During a break in the trial proceedings, the trial court inquired whether defense counsel wished to discuss the Mueller declaration which had been filed that morning. Counsel stated: “I simply want to indicate as the Court knows this witness is down in the Los Angeles area. So I, given the Court’s rulings and my previous statements, I wanted to make sure there was a complete record as to what the basis for our requesting to bring this evidence in.”

The prosecutor objected to the declaration and requested that it not be admitted into evidence on the ground that she had not had the opportunity to cross-examine Mueller. Defense counsel responded that he thought the proffer was “perfectly acceptable” under the circumstances, explaining that “if Dr. Mueller were in San Francisco we would have him come in. But given the Court’s ruling, it seemed unlikely since the Court had indicated that the evidence was not relevant—if the Court believes that this makes it relevant, then I will, we can proceed from there.”

The matter was submitted and the trial court issued the following ruling: “The Court cannot accept this declaration for the truth of matter asserted. It is hearsay. There is no cross-examination of the declarant. [¶] The Court did review the document and has allowed the defense to file it to preserve any issues if there is an appeal. And the Court’s ruling does not change.”

2. Analysis

In their appellate briefs, the parties spend significant time debating whether the Arizona Report can properly be used to attack the validity of the statistical methodology that was used in this case, a methodology which indisputably has been generally accepted in the scientific community. We will not resolve this debate because questions of relevance and admissibility simply cannot be answered in a vacuum. The question before us is not whether the Arizona Report *could be relevant*, but rather whether relevance and admissibility were established in this particular case. To answer this question, we consider the evidence that was before the trial court. We will not analyze or address evidence that was presented *only* to Judge Morgan or that the parties have culled from sources outside this record.

In this particular case, *the only method* by which the defense attempted to present evidence of the Arizona Report to this jury was through its cross-examination of Dr. Holt. Evidence Code section 721, subdivision (b) (section 721(b)) states: “If a witness testifying as an expert testifies in the form of an opinion, he or she may not be cross-examined in regard to the content or tenor of any scientific, technical, or professional text, treatise, journal or similar publication unless any of the following occurs: [¶] (1) The witness referred to, considered, or relied upon such publication in arriving at or forming his or her opinion. [¶] (2) The publication has been admitted in evidence. [¶] (3) The publication has been established as a reliable authority by the testimony or admission of the witness or by other expert testimony or by judicial notice. . . .”

By its plain language, section 721(b) precludes cross-examination of an expert about a report unless one of the exceptions set forth in that statute apply. In the present case, our review of the record confirms that no exception authorized the defense to cross-examine Holt about the Arizona Report.

The section 721(b)(1) exception did not apply because, as the trial court found, Holt’s testimony during the section 402 hearing established that she did not refer to, consider or rely on the Arizona Report in arriving at her opinion. As reflected above, Holt testified that she had heard of the report but that she did not read it.

Davis contends that section 721(b)(1) was satisfied notwithstanding the fact that Holt did not rely on the Arizona Report. He cites Jefferson’s California Evidence Benchbook (Cont.Ed.Bar 3d ed. 1982) section 29.72, pages 644-645, for the proposition that an expert may be cross-examined about a report of a nonwitness expert if “the expert witness testifies that he or she considered or referred to, but did not rely, on” the report. But the record establishes that Holt did not consider or refer to the Arizona Report. Indeed, she did not even look at it.

Davis argues that Holt “can be deemed to have ‘considered’ the Arizona Report” because she testified that she was familiar with some aspects of it. This argument is unsupported by reason or relevant authority. Davis also argues that, even if “the witness must actually have read the publication, rather than merely have heard about it, in order

to be cross-examined on it, then the trial court erred when it ordered Dr. Holt not to read the Arizona report.” That is not what happened. Rather, the court precluded the defense from ordering Holt to read a report that had not been properly authenticated and that she had not previously considered in reaching her expert opinion in this case.

Turning to section 721(b)(2), which authorizes cross-examination of an expert regarding a report that has been admitted into evidence, this exception did not apply because the Arizona Report was not admitted into evidence at trial. On appeal, Davis contends the Report should have been admitted because it was relevant. However, as best we can determine, Davis’s trial counsel never actually offered the Arizona Report into evidence.

In any event, Davis fails to convince us that he made a sufficient showing that the Arizona Report was relevant in this case. Preliminarily, we reiterate that this showing cannot now be made with evidence that was presented only to Judge Morgan at the pre-trial proceeding. Beyond that, Davis contends that Mueller’s declaration establishes that the Arizona Report was relevant and argues that the only reason he did not call Mueller to San Francisco to testify was that the court refused to change its prior ruling that the Report was not relevant. First, the trial court ruled that the Mueller declaration was inadmissible hearsay, a ruling Davis does not dispute on appeal. Second, the court did not preclude Davis from calling Mueller or any other expert to testify about the Arizona Report; indeed it urged the defense to do just that.

Finally, section 721(b)(3), which authorizes cross-examination of an expert about a report if it has been established as reliable by the testimony or admission of any expert or by judicial notice, did not apply in this case. As the trial court noted, the document appeared unreliable on its face because it was not published and was accompanied by the disclaimer that it had been prepared for litigation and produced pursuant to a court order for a very limited purpose. Furthermore, Barlow’s testimony was insufficient to establish reliability because she was attempting to act as both defense counsel and an expert in the same case. Furthermore, Barlow did not even purport to be an expert at calculating random match statistics. Nor could the defense properly use Barlow to introduce hearsay

opinions of actual experts on that subject. Finally, as noted above, the court properly excluded the Mueller declaration because he was not present and available for cross-examination.⁸ Therefore, there simply was no expert testimony before this trial court establishing the reliability of the Arizona Report.

To summarize, the appellate record establishes that Dr. Holt did not consider, refer to or rely on the Arizona Report, that report was not admitted or even offered into evidence at trial, and the reliability of the report was not otherwise established. Therefore, Evidence Code section 721 precluded the defense from cross-examining Holt about the Arizona Report. Furthermore, as a purely factual matter, the defense was not precluded from presenting its own expert to testify about the content and import of the Arizona Report.

C. *The Prosecutor's Comment*

During her closing argument to the jury, the prosecutor made the following comment: “The defendant did suggest during the trial that there was some issue with the statistics. There is no evidence however that there was any issue with the statistics. None. [¶] Every crime lab in the United States of America, every single one, uses the same method to calculate these statistics.”

Davis argues, as he did in the trial court, that this comment was misconduct because “the sole reason” that contrary statistical evidence was not introduced at trial “was because the prosecutor succeeded in excluding it.” According to Davis, the prosecutor’s comment was an improper half-truth because she blamed the defendant for failing to produce evidence when she was the one who prevented him from doing so. To support his conclusion that the comment was misconduct, Davis directs our attention to *People v. Frohner* (1976) 65 Cal.App.3d 94, 103 (*Frohner*).

⁸ The parties spend significant time debating the merits of Mueller’s expertise and opinions regarding perceived flaws in the random match probability methodology that was used in this case. We decline to address these issues in light of the fact that Mueller did not appear as an expert in this case.

The *Frohner* court reversed appellant’s drug conviction because it found his case was severely prejudiced by (1) the prosecutor’s failure to make a reasonable effort to locate the state’s informant and (2) the trial court’s refusal to reopen the case after jury deliberations commenced once the informant was located. (*Frohner, supra*, 65 Cal.App.3d at p. 110.) The court also noted that other trial errors had occurred including that the prosecutor committed misconduct during closing argument by telling the jury that, if the defense had wanted the jury to see the People’s informant, he could have used a subpoena to bring him in. (*Id.* at p. 108.) This comment was inexcusable, the court found, because the prosecutor knew that a subpoena could not be served on the informant and “[t]he only apparent reason for the comment” was to improperly “suggest to the jury that defendant had purposely failed to call [the informant] as a witness.” (*Id.* at p. 109.)

Davis contends that the prosecutor in this case made the same type of comment that the *Frohner* court characterized as misconduct. We disagree. The *Frohner* prosecutor’s comment was improper because he *erroneously* blamed the defendant for failing to produce a witness who was unavailable because the prosecutor had failed his duty to make a reasonable effort to locate that witness. In this case, by contrast, the prosecutor did not violate any duty by objecting to defense efforts to admit the Arizona Report via its cross-examination of the prosecution’s expert witness. Thus, there was nothing erroneous or misleading about the prosecutor’s observation to the jury that the defense challenged the prosecutor’s statistics but failed to produce contrary statistical evidence.

Davis insists that the prosecutor’s comment was erroneous because she “urged a conclusion—that there was no contrary statistical evidence—which was wrong, and which the prosecutor knew was wrong.” This contention hinges on the premise that the Arizona Report constituted competent contrary statistical evidence, a premise that the prosecutor rejected and that the defense failed to substantiate in the trial court. Our review of the record before us confirms that there was no contrary statistical evidence presented at trial and the prosecutor’s remark to that effect was fair comment.

Davis intimates that a prosecutor commits misconduct by commenting on the absence of evidence to which he or she successfully objected even if that objection was sound. Case law holds otherwise. (*People v. Lawley* (2002) 27 Cal.4th 102, 152-156 (*Lawley*)). Misconduct means “the use of deception or reprehensible methods to persuade the jury. [Citation.]” (*Id.* at p. 156.) Thus, a prosecutor may commit misconduct by improperly capitalizing on erroneous evidentiary rulings during closing argument. However, when “the prosecutor’s argument constituted fair comment on the evidence, following evidentiary rulings we have upheld, there was no misconduct.” (*Ibid.*)

D. *Miranda/Doyle Error*

As reflected in our factual summary above, the jury heard an audiotape recording of Spillane’s December 2002 interview of Davis which concluded with the following statement by Davis: “I ain’t got no more to say to you ‘til I can get an attorney you know. This is fucked up.” On appeal, Davis objects to the admission of this quoted statement, contending that the fact that he implicitly invoked his right to silence by requesting an attorney should not have been used against him. (Citing *Miranda, supra*, 384 U.S. at p. 468 and *Doyle v. Ohio* (1976) 426 U.S. 610 (*Doyle*)).

Davis forfeited this claim of error by failing to raise it in the trial court. (*People v. Huggins* (2006) 38 Cal.4th 175, 198-199 (*Huggins*); *People v. Ramos* (1997) 15 Cal.4th 1133, 1171.) Although Davis’s trial counsel did move to exclude the entire December 22 interview on the ground that his *Miranda* rights were violated, the defense never objected that the specific comment quoted above was inadmissible. Nevertheless, we will address the merits of this argument because Davis contends that, if this issue was not properly preserved, he was denied the effective assistance of counsel.

In *Doyle, supra*, 426 U.S. at page 618, the United States Supreme Court held that “it would be fundamentally unfair and a deprivation of due process to allow the arrested person’s silence to be used to impeach an explanation subsequently offered at trial.” As the court explained, “while it is true that the *Miranda* warnings contain no express

assurance that silence will carry no penalty, such assurance is implicit to any person who receives the warnings.” (*Ibid.*)⁹

The *Doyle* rule rests “on the fundamental unfairness presented by a breach of the implicit promise that the prosecution will not use at trial a defendant’s silence: ‘The point of the *Doyle* holding is that it is fundamentally unfair to promise an arrested person that his silence will not be used against him and thereafter to breach that promise by using the silence to impeach his trial testimony.’ [Citations.]” (*People v. Quartermain* (1997) 16 Cal.4th 600, 619.) Our Supreme Court has acknowledged that the rationale of the *Doyle* rule applies with equal force to comments which penalize the exercise of the right to counsel. (*Huggins, supra*, 38 Cal.4th at pp. 198-199.)

In the present case, evidence of Davis’s invocation of his right to counsel was admitted as part of the December 22 interview. However, it does not appear to us that the prosecutor ever made any reference to that invocation during the trial itself. Indeed, it appears the comment was included simply to signify when the interview ended. Nevertheless, Davis is adamant that introducing *any evidence* that he invoked his right to counsel or silence constituted automatic error. Evidence of the invocation all by itself, Davis reasons, could lead the jury to infer that the defendant has something to hide.

We reject this proposed automatic error rule for several reasons. First, Davis fails to cite authority which either articulates or applies such a per se rule. Second, Davis ignores authority holding that it is not always “error to permit evidence that a defendant exercised his right to counsel.” (*Huggins, supra*, 38 Cal.4th at p. 198.) Indeed, claims of *Doyle* error have repeatedly been rejected when, as here, “ ‘the prosecutor did not invite the jury to draw any adverse inference from either the fact or the timing of defendant’s

⁹ The *Doyle* rule was foreshadowed in *Miranda* itself, where the Court stated: “In accord with our decision today, it is impermissible to penalize an individual for exercising his Fifth Amendment privilege when he is under police custodial interrogation. The prosecution may not, therefore, use at trial the fact that he stood mute, or claimed his privilege in the face of accusation.” (*Miranda, supra*, 384 U.S. at p. 468, fn. 37.)

exercise of his constitutional right.” (*Id.* at p. 199; see also *People v. Crandell* (1988) 46 Cal.3d 833, 878; *People v. Hughes* (2002) 27 Cal.4th 287, 332, fn. 4.)

There may be a case in which the circumstances raise a legitimate concern that the jury may have drawn an improper inference from evidence that the defendant invoked his *Miranda* rights even though the prosecutor did not comment on that invocation. But Davis does not identify any such circumstance in the present case.

Under the circumstances presented here, where the invocation of the right to counsel was admitted as part of a recorded statement that was otherwise admissible, where there was no objection raised in the trial court, and where the prosecutor did not use the invocation to invite the jury to draw an adverse inference or, indeed, make any reference to the comment at all, we conclude there was no *Doyle* error.

E. Confrontation Clause Rights

1. Issues Presented

Davis contends that the trial court violated his constitutional right to confront witnesses against him by admitting evidence of statements made by two non-testifying witnesses: Dr. Duazo, the pathologist who prepared the Martz autopsy report, and Bonnie Cheng, the criminalist who performed a significant portion of the DNA testing and analysis that was used to link Davis to these crimes.

As noted in our Introduction to this opinion, the California Supreme Court transfer order directs us to consider four Confrontation Clause cases that were decided in 2012: *Williams, supra*, 132 S.Ct. 2221; *Lopez, supra*, 55 Cal.4th 569; *Dungo, supra*, 55 Cal.4th 608 and *Rutterschmidt, supra*, 55 Cal.4th 650. To put these cases in perspective, we begin with a summary of the core principles elucidated in federal cases that were decided prior to 2012. We then explore how these principles were applied in the four cases referenced in the transfer order. Finally, with the guidance of these recent decisions, we will reconsider the confrontation claims that Davis advances in this appeal.

2. Guiding Principles

The Sixth Amendment to the United States Constitution, made applicable to the states via the Fourteenth Amendment, states: “In all criminal prosecutions, the accused

shall enjoy the right . . . to be confronted with the witnesses against him” In *Crawford v. Washington* (2004) 541 U.S. 36, 68 (*Crawford*), the United States Supreme Court held that a defendant’s Sixth Amendment right of confrontation is violated by the admission of testimonial statements of a witness who was not subject to cross-examination at trial, unless the witness was unavailable to testify and the defendant had a prior opportunity for cross-examination.

Crawford overruled *Ohio v. Roberts* (1980) 448 U.S. 56, 57, which previously held that evidence with “particularized guarantees of trustworthiness” was admissible without confrontation. As the *Crawford* court explained, “[t]o be sure, the Clause’s ultimate goal is to ensure reliability of evidence, but it is a procedural rather than a substantive guarantee. It commands, not that evidence be reliable, but that reliability be assessed in a particular manner: by testing in the crucible of cross-examination. . . . [¶] Dispensing with confrontation because testimony is obviously reliable is akin to dispensing with jury trial because a defendant is obviously guilty. This is not what the Sixth Amendment prescribes.” (*Crawford, supra*, 541 U.S. at pp. 61-62.)

The *Crawford* court declined to “spell out a comprehensive definition of ‘testimonial.’ ” The court anticipated (correctly) that its refusal to do so would cause interim uncertainty. (*Crawford, supra*, 541 U.S. at p. 68.) In 2009, the high court revisited the question of what constitutes a testimonial statement in *Melendez-Diaz v. Massachusetts* (2009) 557 U.S. 305 (*Melendez-Diaz*). The *Melendez-Diaz* defendant was convicted of distributing and trafficking cocaine based, in part, on “ ‘certificates of analysis’ ” that were introduced into evidence at trial. (*Id.* at p. 308.) These certificates, which were mandated by and prepared in accordance with state law, reported that the results of forensic analysis showed that material the police had seized from the defendant was cocaine. (*Ibid.*) The *Melendez-Diaz* court held that the certificates were testimonial statements because they were declarations made for the purpose of establishing a fact made under circumstances which would lead the affiant to believe or in fact know that the statements would later be used at trial. (*Id.* at pp. 310-311.) Therefore, the analysts

who made the statements were witnesses for purposes of the Sixth Amendment. (*Id.* at p. 311.)

In reaching its decision, the *Melendez-Diaz* court made several important points regarding the nature of a testimonial statement requiring confrontation. First, a statement need not be “ ‘accusatory’ ” for the Confrontation Clause to apply; if the statement is being used against the defendant, it is adverse testimony even if the individual who prepared it is not a direct accuser. (*Melendez-Diaz, supra*, 557 U.S. at pp. 313-314.) Second, the confrontation requirement is not limited to statements made by “ ‘conventional’ ” witnesses. (*Id.* at p. 315.) Thus, statements are not exempt simply because they (a) recount “ ‘near contemporaneous’ ” observations as opposed to recalling events observed in the past, (b) do not pertain to observations of the crime or any human action related to it, or (c) were not provided in response to interrogation. (*Id.* at pp. 315-317.) Third, statements pertaining to allegedly “ ‘neutral’ ” scientific tests are not excepted from the requirements of the Confrontation Clause. (*Id.* at p. 317.) Carving out an exception for scientific testing would, the court explained, resurrect an overruled line of authority which previously held that evidence with “ ‘particularized guarantees of trustworthiness’ ” was admissible without confrontation. (*Ibid.*) Fourth, “business records” are subject to the Confrontation Clause if they are testimonial statements, i.e., statements made for the purpose of establishing or proving some fact at trial. (*Id.* at pp. 321-324.) In this regard, the court expressly declined to approve a purported common law rule that coroner’s reports are admissible without confrontation. (*Id.* at p. 322.)¹⁰

¹⁰ The *Melendez-Diaz* court also clarified the relationship between the business records exception to the hearsay rule and the Confrontation Clause, as follows: “Business and public records are generally admissible absent confrontation not because they qualify under an exception to the hearsay rules, but because—having been created for the administration of an entity’s affairs and not for the purpose of establishing or proving some fact at trial—they are not testimonial. Whether or not they qualify as business or official records, the analysts’ statements here—prepared specifically for use at petitioner’s trial—were testimony against petitioner, and the analysts were subject to confrontation under the Sixth Amendment.” (*Melendez-Diaz, supra*, 557 U.S. at p. 324.)

Finally, the *Melendez-Diaz* court cautioned that the requirements of the Confrontation Clause cannot be relaxed to accommodate the “ ‘ ‘necessities of trial and the adversary process.’ ’ ” (*Melendez-Diaz, supra*, 557 U.S. at p. 325.) As the court explained, notwithstanding the fact that it may make the prosecution of criminal trials more burdensome, the Confrontation Clause “is binding, and we may not disregard it at our convenience.” (*Ibid.*)

In 2011, the United States Supreme Court affirmed the principles it previously elucidated in *Melendez-Diaz in Bullcoming v. New Mexico* (2011) 564 U.S. ____ [131 S.Ct. 2705] (*Bullcoming*). In that case, the defendant was convicted of driving while intoxicated (DWI) based in part on “a forensic laboratory report certifying that [his] blood-alcohol concentration was well above the threshold for aggravated DWI.” (*Ibid.*) At trial, the prosecutor did not call the analyst who prepared and signed the lab report as a witness. Instead, evidence of the report was admitted through the testimony of another analyst who was familiar with the blood test procedure but who did not participate in or observe the test of the defendant’s blood.

The *Bullcoming* court held that the defendant was denied his right to confrontation. (131 S.Ct. at p. 2705.) The court reasoned that the blood alcohol report was a testimonial statement (*id.* at pp. 2716-2717) and that the defendant’s right to confront the analyst who generated that report was not satisfied by the live testimony of a surrogate analyst who did not prepare the report or certify that it was accurate. (*Id.* at pp. 2714-2716.) In reaching this conclusion, the court rejected the contention that the blood-alcohol report was distinguishable from the *Melendez-Diaz* certificates because it was an “unsworn” report and was not certified under oath. (*Bullcoming* at p. 2717.) Finding that the lab report resembled the *Melendez-Diaz* certificates in “all material respects,” the court refused to adopt or approve “any construction of the Confrontation Clause that would render inadmissible only sworn *ex parte* affidavits, while leaving admission of formal, but unsworn statements ‘perfectly OK.’ [Citation.]” (*Ibid.*)

3. *Recent Developments (Cases Referenced in the Transfer Order)*

In June 2012, a divided United States Supreme Court decided *Williams, supra*, 132 S.Ct. 2221. The *Williams* defendant was convicted of rape based in part on expert testimony that the defendant's DNA profile matched a DNA profile which had previously been developed for semen recovered from the victim's body. (*Id.* at pp. 2227-2228.) Before the defendant was identified as a suspect, that semen sample had been sent to Cellmark Diagnostic Laboratory, a private company that generated the DNA profile for the donor sample. At trial, the analyst who developed the defendant's DNA profile and the scientist who confirmed the presence of semen on vaginal swabs taken from the victim appeared and were subject to confrontation. (*Id.* at pp. 2229-2230.) However, the Cellmark analyst who developed the DNA donor profile did not testify at trial and the analyst's report was not admitted into evidence. (*Id.* at pp. 2230-2231.) Instead, evidence about the content of the Cellmark report was admitted through the testimony of the People's DNA expert.

The *Williams* court held that expert testimony about the content of the Cellmark report did not violate the defendant's right to confrontation. (132 S.Ct. 2221.) Four justices approved a plurality opinion which offered two independent justifications for this conclusion: (1) the expert's testimony about the Cellmark report was not admitted for its truth, but solely to explain assumptions underlying the testifying expert's opinion (*id.* at p. 2228); and (2) the Cellmark report was not "testimonial" because it was not prepared "for the primary purpose of accusing a targeted individual." (*Id.* at p. 2243.) Justice Thomas wrote a separate opinion pursuant to which he concurred in the judgment. (*Williams, supra*, 132 S.Ct at pp. 2255-2264 [conc. & dis. opn. of Thomas, J.].) Justice Thomas agreed with the conclusion of the plurality opinion that there was no violation of the Confrontation Clause, but rejected its reasoning. (*Id.* at p. 2255.) Instead, Justice Thomas found that the Cellmark report did not require confrontation "solely because

Cellmark’s statements lacked the requisite ‘formality and solemnity’ to be considered ‘testimonial’ for purposes of the Confrontation Clause.” (*Ibid.*)¹¹

In October 2012, the California Supreme Court decided three cases addressing “the constitutionality of a prosecution expert’s testimony about certain information in a report prepared by someone who did not testify at trial.” (*Lopez, supra*, 55 Cal.4th at p. 573; see also *Dungo, supra*, 55 Cal.4th 608; *Rutterschmidt, supra*, 55 Cal.4th 650.) In all three cases, the pivotal issue for the court was whether information in a report constituted a “testimonial statement” for purposes of the Confrontation Clause. In *Lopez, supra*, 55 Cal.4th at pages 581-583, the first of this trio of decisions, the court acknowledged that the federal high court had not agreed on a definition of “testimonial,” but nevertheless concluded that federal cases indicate that there are at least “two critical components” which make a statement testimonial, and it used those components to formulate this test: An out of court statement is testimonial if (1) it is made with “some degree of formality or solemnity” and (2) its “primary purpose pertains in some fashion to a criminal prosecution” (*Id.* at pp. 581-582.)¹²

¹¹ The plurality opinion in *Williams, supra*, 132 S.Ct. 2221, was authored by Justice Alito and joined by Chief Justice Roberts and Justices Kennedy and Breyer. (*Id.* at p. 2227.) Justice Kagen filed a dissenting opinion which was joined by Justices Scalia, Ginsburg, and Sotomayor. (*Id.* at p. 2264.)

¹² In adopting this test, the *Lopez* court acknowledged that its prior decision in *People v. Geier* (2007) 41 Cal.4th 555 (*Geier*) is no longer controlling precedent. (*Lopez, supra*, 55 Cal.4th at p. 581.) In *Geier, supra*, 41 Cal.4th 555, an analyst who compared DNA recovered from inside a rape victim with the defendant’s DNA prepared a report of her findings but did not testify at trial. Instead, the substance of the DNA report was conveyed to the jury through the testimony of the People’s expert. The *Geier* court held that the DNA report was not a testimonial statement under *Crawford, supra*, 541 U.S. 36, because it was a contemporaneous recordation of observable events rather than documentation of past events relating to criminal activity. (*Geier* at pp. 605-606.) As the *Lopez* court acknowledged, two years after *Geier* was decided, “the high court in *Melendez-Diaz* said that a laboratory report may be testimonial, and thus inadmissible even if it ‘contains near contemporaneous observations of [a scientific] test.’” [Citations.]” (*Lopez, supra*, 55 Cal.4th at p. 581.)

The *Lopez* court applied this test to a statement in a laboratory report regarding the percentage of alcohol in a defendant's blood. (*Lopez, supra*, 55 Cal.4th at pp. 583-584.) At the *Lopez* defendant's trial for vehicular manslaughter while intoxicated, the lab report was admitted into evidence and its content was described to the jury by an expert who did not conduct the test or prepare the report. (*Id.* at pp. 573-574.) Following her conviction, the *Lopez* defendant claimed that she was denied her constitutional right to confront the author of the lab report. Preliminarily, the *Lopez* court determined that most of the information in the lab report did not implicate the Confrontation Clause at all because it consisted of machine-generated printouts of data. (*Id.* at p. 583.) The *Lopez* court held that computer data does not, by itself, implicate the Confrontation Clause because a machine cannot be subject to cross-examination. Secondly, the court declined to decide whether the non-testifying analyst's conclusion regarding the blood alcohol concentration in the defendant's blood was a testimonial statement because it found that the prosecutor's trial expert gave his independent opinion on that subject based on his direct review of the computer data. (*Id.* at p. 584.)

Thus, the *Lopez* court found that the only "statement" in the lab report that raised a confrontation concern was a notation by a lab assistant that linked the defendant to certain machine generated results. (*Lopez, supra*, 55 Cal.4th at pp. 583-584.) The court held that this notation, though indisputably admitted for its truth, did not constitute a testimonial statement because it was "not prepared with the formality required by the high court for testimonial statements." (*Id.* at p. 584.) The *Lopez* court reasoned that, although both the non-testifying analyst and his non-testifying assistant had placed their initials near the notation, neither of them "signed, certified, or swore to the truth" of the statement. (*Ibid.*)

In *Dungo, supra*, 55 Cal.4th 608, the court addressed whether a specific type of information in an autopsy report is a testimonial statement requiring confrontation. At the *Dungo* defendant's murder trial, a forensic pathologist opined that the victim was strangled. (*Id.* at p. 614.) The expert testified that his opinion was based on information gleaned from an autopsy report prepared by a different pathologist who did not testify at

trial. The expert used the autopsy report to describe the condition of the victim's body to the jury and then gave his independent opinion regarding the victim's cause of death. (*Id.* at pp. 613-614.)

The *Dungo* court found that two "significant points" limited the constitutional inquiry regarding the defendant's right to confrontation in that case: (1) the autopsy report was not admitted into evidence; and (2) the testifying expert did not relay to the jury the opinion of the non-testifying pathologist regarding the victim's cause of death. (*Dungo, supra*, 55 Cal.4th at pp. 618-619.) Thus, the sole issue before the *Dungo* court was whether the expert's testimony about "objective facts" recorded in the autopsy report entitled the defendant to confront and cross-examine the author of that report. To answer this question, the court employed the test it announced in *Lopez, supra*, 55 Cal.4th at page 581, for determining whether a statement is testimonial.

The *Dungo* court concluded that statements in an autopsy report describing the "pathologist's anatomical and physiological observations about the condition of the body" are not testimonial under either prong of the *Lopez* test. (*Dungo, supra*, 55 Cal.4th at p. 619.) The court reasoned that "statements, which merely record objective facts, are less formal than statements setting forth a pathologist's expert conclusions. They are comparable to observations of objective fact in a report by a physician who, after examining a patient, diagnoses a particular injury or ailment and determines the appropriate treatment." (*Id.* at p. 619.) In addition, the court found that the primary purpose of recording such objective facts did not pertain to a criminal investigation. (*Id.* at pp. 619-621.)

Rutterschmidt, supra, 55 Cal.4th 650, the third of the trio of Confrontation Clause cases that our Supreme Court decided in October 2012, pertained to expert testimony regarding the test results of a sample of a murder victim's blood. The *Rutterschmidt* defendants were convicted of murdering two men by running them over with a car. The evidence showed that each victim held life insurance policies naming the defendants as beneficiaries. (*Id.* at pp. 652-653.) To support the prosecution theory that one of the victims was drugged before he was killed, the prosecutor elicited testimony from a lab

director regarding the results of testing of the victim's blood sample. The witness based his testimony on two reports prepared by non-testifying analysts at his lab. (*Id.* at pp. 652 & 659.) Defendants maintained they had been denied the constitutional right to confront and cross-examine the analysts who prepared the two toxicology reports. The *Rutterschmidt* court declined to decide whether the trial court erred by allowing the lab director to testify about the content of the toxicology reports. (*Id.* at p. 661.) The court reasoned that any error associated with that testimony was harmless beyond a reasonable doubt in light of the overwhelming evidence of guilt. (*Ibid.*)

In our opinion, these recent cases regarding the Confrontation Clause do not establish new or fundamentally different legal principles. Instead, the cases referenced in the Supreme Court transfer order guide our analysis by highlighting the crucial inquiry, i.e., whether evidence of a *testimonial statement* has been admitted into evidence without affording an opportunity for confrontation, and by establishing the *Lopez* test for determining whether a given statement is testimonial and requires confrontation. With this guidance, we turn to the two sets of statements that gave rise to Davis's claim of confrontation error.

4. Dr. Duazo

The first category of statements were made by Dr. Duazo. As reflected in our factual summary, Dr. Duazo conducted the Martz autopsy and prepared the autopsy report. Although Dr. Duazo did not testify at trial, her statements were admitted into evidence through two distinct avenues. First, the Martz autopsy report was admitted into evidence as a business record. Second, Dr. Amy Hart testified about the content of the Martz autopsy report.

a. The Autopsy Report

If the Martz autopsy report was a testimonial statement, Davis was denied his right to confrontation as there is no contention on appeal that Dr. Duazo was unavailable or subject to prior cross-examination. (*Crawford, supra*, 541 U.S. at p. 68.) Under *Lopez*, a statement is testimonial if (1) it is made with "some degree of formality or solemnity"

and (2) its “primary purpose pertains in some fashion to a criminal prosecution” (*Lopez, supra*, 55 Cal.4th at pp. 581-582.)

Under *Dungo, supra*, 55 Cal.4th 608, statements in an autopsy report describing the “pathologist’s anatomical and physiological observations about the condition of the body” are not testimonial statements because they do not satisfy either prong of the *Lopez* test. According to the *Dungo* court, statements of this nature which merely record objective facts are not sufficiently solemn or formal because they (1) “are less formal than statements setting forth a pathologist’s expert conclusions” and (2) “are comparable to observations of objective fact in a report by a physician who, after examining a patient, diagnoses a particular injury or ailment and determines the appropriate treatment.” (*Id.* at p. 619.) Furthermore, the primary purpose of recording these types of observations is not criminal investigation.

However, the statements at issue in this case are not limited to Dr. Duazo’s observations about the condition of the victim’s body. An autopsy report “typically contains two types of statements: (1) statements describing the pathologist’s anatomical and physiological observations about the condition of the body, and (2) statements setting forth the pathologists conclusions as to the cause of the victim’s death.” (*Dungo, supra*, 55 Cal.4th at p. 619.) Here, Dr. Duazo made both types of statements in the Martz autopsy report. Importantly, that entire report was admitted into evidence at trial; Dr. Duazo’s findings and conclusions, including her findings regarding the manner and cause of death, were admitted into evidence without affording the defendant the opportunity to cross-examine the doctor about the basis for those conclusions.

Dungo, supra, 55 Cal.4th at page 619, supports the conclusion that statements in an autopsy report setting forth a pathologist’s expert conclusions are sufficiently formal to satisfy the *Lopez* test. As the *Dungo* court found, such statements are substantively more formal than recorded physiological observations. (*Ibid.*) Furthermore, such findings are clearly not analogous to a medical record generated for the purpose of facilitating medical treatment of a live person especially when, as here, those expert findings pertain to the circumstances and cause of a murder victim’s death. In the present

case, there can be no doubt that Dr. Duazo understood that she was performing an autopsy on a murder victim and that a primary function of her expert conclusions was to generate evidence for use at a criminal trial. Thus, applying the test announced by our Supreme Court in *Lopez, supra*, 55 Cal.4th at pages 581-582, we conclude that Davis was denied his constitutional right to confront Dr. Duazo because the autopsy report contains statements that Duazo made (1) with “some degree of formality or solemnity” and (2) for a “primary purpose” which pertained “in some fashion to a criminal prosecution” (*Lopez, supra*, 55 Cal.4th at pp. 581-582.)

In a Supplemental Respondent’s Brief, the People contend that *Dungo, supra*, 55 Cal.4th 608, “squarely substantiates” arguments the People have previously advanced in this case that an autopsy report is admissible “as a nontestimonial business record.” We strongly disagree. As reflected above, the autopsy report at issue in *Dungo* was not admitted into evidence at trial and the People’s expert in that case did not repeat the conclusions of the non-testifying pathologist who prepared the report. (*Id.* at pp. 618-619.) Therefore, the *Dungo* court expressly declined to decide the issue presented here, i.e., whether an entire autopsy report is testimonial in nature. (*Ibid.*)¹³

Furthermore, neither *Dungo* nor any of the other cases we have been instructed to consider supports the People’s persistent contention that business records are exempt from the requirements of the Confrontation Clause. As reflected in our factual summary, the autopsy report was admitted into evidence at Davis’s trial as a business record. Evidence Code sections 1271 and 1280 provide that business records are not made inadmissible by the hearsay rule, but they do not and, indeed, could not except a testimonial statement from the requirements of the Confrontation Clause. (*Melendez-Diaz, supra*, 557 U.S. at pp. 321-324.) The *Melendez-Diaz* court acknowledged that

¹³ The court had another opportunity adopt the People’s position in *People v. Pearson* (2013) 56 Cal.4th 393, 463, but declined to do so. In that case, which squarely raised the question whether the admission of two autopsy reports authored by a non-testifying witnesses violated the Confrontation Clause, the court found that any error in the admission of the autopsy reports and expert testimony about them was harmless beyond a reasonable doubt. (*Ibid.*)

many business records will be admissible absent confrontation because they were created for the administration of an entity's business affairs and not for the purpose of establishing or proving a fact at trial. (*Melendez-Diaz, supra*, 557 U.S. at pp. 321-324.) Furthermore, under the *Lopez* test, a statement is not testimonial unless its "primary purpose pertains in some fashion to a criminal prosecution . . ." (*Lopez, supra*, 55 Cal.4th at p. 582.) However, if a business record embodies the essential components of a testimonial statement, it is subject to the requirements of the Confrontation Clause. (*Melendez-Diaz, supra*, 557 U.S. at pp. 321-324.)

The People also continue to intimate that autopsy reports should fall outside the scope of the Confrontation Clause because they are prepared pursuant to statutory mandates and in accordance with standardized medical protocol which make them particularly reliable. First, perceived guarantees of trustworthiness do not justify violating the Confrontation Clause. (*Crawford, supra*, 541 U.S. at pp. 61-62; *Melendez-Diaz, supra*, 557 U.S. at p. 318.) Second, the United States Supreme Court has expressly rejected the contention that coroner's reports are exempt from the requirements of the Confrontation Clause. (*Melendez-Diaz, supra*, 557 U.S. at p. 322.) Third, the fact that autopsy reports are prepared pursuant to statutory mandates and in accordance with standardized protocol only reinforces that the expert conclusions contained in such reports are sufficiently solemn and formal to satisfy the first prong of the *Lopez* test.

For all these reasons, we hold that the trial court erred by admitting the entire autopsy report into evidence at Davis's trial.

b. *Dr. Hart's Testimony*

Dr. Duazo's statements were also admitted into evidence through the expert testimony of Dr. Hart. As reflected in our factual summary, Dr. Hart, the Chief Medical Examiner at the time of trial, testified about the content of Martz autopsy report.

During the course of her testimony, Dr. Hart described Martz's physical condition and injuries based on her review of the autopsy report. For example, Hart testified that the report disclosed that Martz was stabbed three times. Hart also answered questions about the nature of those stab wounds by repeating statements in the autopsy report. For

example, Hart testified that Dr. Duazo concluded that the direction of one of the stab wounds was from the decedent's front to her back.

Dr. Hart also testified about Dr. Duazo's conclusions regarding the manner and cause of death. At one point during Hart's testimony, the prosecutor asked whether Dr. Duazo had ascertained which of the three stab wound was fatal. Dr. Hart responded that the "mechanism of death" was exsanguination or bleeding to death, that the report indicated that all three stab wounds had contributed to that bleeding, and that "I don't recall any specific stab wound that is singled out as lethal unless I missed something in the report." Near the end of her direct testimony, when Hart was asked to repeat the cause and manner of death, she testified as follows: "The mechanism of death is exsanguination or bleeding to death. The actual cause of death was certified as multiple stab and incised wounds."

Hart also testified about findings Dr. Duazo made during a rectal and vaginal exam and about evidence samples collected from Martz's body during that examination. During this part of her testimony, Hart testified that the report indicated that several "smears" were prepared during the autopsy. Dr. Hart did not personally review those smears but she testified that the report indicated that Dr. Duazo reviewed them. Dr. Hart then proceeded to testify about Dr. Duazo's findings. For example, she testified that "[a]ccording to the report" spermatozoa were found in the victim's vagina. Based on her review of the autopsy report as well as photos taken at the autopsy and at the crime scene, Dr. Hart offered the opinion that the sexual penetration most likely occurred before the injuries that produced the blood.

As discussed above, the expert pathologist who testified at the *Dungo* trial offered his independent conclusions regarding the cause and manner of death and did not repeat any of the conclusions of the non-testifying pathologist. (*Dungo, supra*, 55 Cal.4th at pp. 618-619.) Under those circumstances, the *Dungo* court held that expert testimony about "objective facts" recorded in an autopsy report does not require confrontation of the author of the report. (*Ibid.*)

In the present case, our summary of Dr. Hart’s testimony demonstrates that she did offer some independent expert opinions, most notably the opinion that the victim was raped before she was murdered. However, we are simply not convinced that Dr. Hart offered her own independent opinion regarding the manner and cause of death. By contrast, Dr. Hart clearly did repeat Dr. Duazo’s expert conclusions on that subject. Thus, we hold that Dr. Hart’s testimony about Dr. Duazo’s conclusions deprived Davis of his constitutional right to confront witnesses against him.

5. *Bonnie Cheng*

Applying the principles outlined above, we also find that the trial court admitted evidence of at least one testimonial statement made by Bonnie Cheng and that Davis was denied his constitutional right to confront and cross-examine Cheng about that statement when the court permitted Dr. Cydne Holt to testify about Cheng’s conclusions.

As reflected in our factual summary, Ms. Cheng developed the 13-locus DNA profiles that were used to link Davis to these crimes. Dr. Holt testified about how those profiles were generated. Furthermore, it appears that Holt used data in Cheng’s reports to explain Cheng’s conclusion that the DNA profile created for Davis matched the DNA donor profile for the sperm sample recovered from Martz’s body. Recorded data in Cheng’s various DNA reports was likely not testimonial in nature. Such data is substantively analogous to the machine generated blood test data at issue in *Lopez, supra*, 55 Cal.4th at pages 538-584. Under the reasoning of *Lopez*, this type of data does not implicate the Confrontation Clause because machines are not subject to cross-examination. (*Ibid.*) Furthermore, although Dr. Holt’s trial testimony is not as clear as we would like it to be, it does appear that she reached an independent conclusion regarding the DNA match by conducting her own visual comparison of the pertinent DNA data.

However, Dr. Holt also testified about the rarity of the DNA donor profile for the sperm sample and the statistical “ ‘probability that a random unrelated person by chance would possess the same DNA profile detected on the sperm fractions’ ” used to generate the DNA donor profile. Our review of the trial record compels the conclusion that this

testimony was not Dr. Holt's independent expert opinion, but was instead Bonnie Cheng's testimonial statement. Indeed, Dr. Holt expressly acknowledged that Cheng performed the statistical analysis and, when asked to testify regarding the rarity of the profile, Holt stated: "I would like to read from the report the way it was reported officially in the record, if that's okay, Your Honor." The court granted that request and Holt proceeded to quote directly from Bonnie Cheng's report.

Bonnie Cheng's conclusions regarding the rarity of a DNA match were testimonial statements under the *Lopez* test. (*Lopez, supra*, 55 Cal.4th pp. 581-582.) First, Holt herself treated those findings as formal conclusions and characterized them as part of the official record. Second, there is no question those conclusions were made for the primary if not sole purpose of use at trial to establish facts necessary to convict Davis. Further, the record does not reflect that Cheng was unavailable at the time of trial or that she was subject to prior cross-examination by Davis. Therefore, we hold that Davis's confrontation rights were violated when Dr. Holt was permitted to testify about the content of testimonial statements made by Bonnie Cheng.

6. Prejudice

Violations of the Confrontation Clause require reversal of the judgment unless they are harmless beyond a reasonable doubt. (See *Delaware v. Van Arsdall* (1986) 475 U.S. 673, 681; *Rutterschmidt, supra*, 55 Cal.4th at p. 661.) In the present case, we have already concluded that the judgment must be reversed because of jury misconduct. Therefore, we need not address whether evidence admitted in violation of Davis's confrontation rights was prejudicial. We do note, however, that the jury misconduct that occurred in this case pertained to Bonnie Cheng's conclusions regarding the rarity of the DNA match, and that this testimonial evidence appears to us to have been crucial to the People's case against Davis.

IV. DISPOSITION

The judgment is reversed and this case is remanded for further proceedings consistent with this decision.

Haerle, J.

We concur:

Kline, P.J.

Richman, J.