SYLLABUS

(This syllabus is not part of the opinion of the Court. It has been prepared by the Office of the Clerk for the convenience of the reader. It has been neither reviewed nor approved by the Supreme Court. Please note that, in the interests of brevity, portions of any opinion may not have been summarized).

State of New Jersey v. Judel Noel (A-143-97)

Argued September 29, 1998 -- Decided February 10, 1999

POLLOCK, J., writing for a majority of the Court.

The primary issue in this appeal is whether, in the absence of statistical probability evidence, it was error to admit expert testimony concerning the similarity in composition of lead bullets found at the crime scene, in the victim's body, and among Judel Noel's belongings.

As Antoine Hargrove was returning to his home in Newark, he was shot in the back. He died several hours later. Two bullets were recovered from his body. At the crime scene, police recovered six 9mm shell casings made by Speer, a cartridge manufacturer, and four spent bullets. Two witnesses saw Noel flee from the scene.

Noel was arrested at a pre-parole halfway house. A search of Noel's locker revealed a pouch containing eighteen 9mm bullets, nine manufactured by Speer.

At the request of police, Charles Peters, a physical scientist with the materials analysis unit of the FBI, examined all of the bullets. Peters used a process known as inductively coupled plasma atomic emission spectroscopy (ICP), which determines the type and amount of elements other than lead in the bullet. Peters found that many of the bullets recovered were analytically indistinguishable.

At trial, Peters testified that bullets that come from the same box have the same composition of lead and those that come from different boxes have different compositions. He explained that the manufacturer fills a box with bullets from the same batch of lead. Peters concluded he would not expect random batches of lead to produce the matches that existed among the subject bullets.

The Appellate Division found that the trial court committed reversible error in allowing Peters to testify, absent foundation evidence of statistical probability, about the identical composition of the bullets. One judge dissented, finding that the absence of a statistical foundation affected the weight, not the admissibility of Peters's testimony. The Appellate Division also was split on the issue of the influence exerted by Peters's testimony. The majority believed that his extensive, impressive credentials resulted in an unwarranted enhancement of probative weight. The dissent noted defense counsel's probing cross-examination of the expert, concluding that the testimony merely added another link to the chain of evidence.

HELD: There was no error in permitting the expert to testify about the similarity in the composition of the bullets.

1. Statistical evidence has not been a prerequisite to the admission of evidence of matching samples. The production of a large quantity of comparable samples affects the weight, not the admissibility of the evidence. (pp. 6-9)

2. ICP is an accepted method of bullet lead analysis. The resulting evidence increased the probability that the bullets in the victim came from Noel. The defense attempted to undermine that conclusion by cross-examining the expert and showing that thousands of bullets had the same composition. The Court's holding does not preclude an objecting party from offering statistical evidence to rebut the relevance of matching samples. (pp. 9-12)

3. The dissent contends that the evidence was not sufficiently reliable to justify any inference of guilt, and that the

State presented the case to the jury as if it had scientific proof that the bullets came from the same box. However, defense counsel made the argument that many boxes contain bullets matching the ones at issue, and vigorously cross-examined Peters. Further, nothing prevented the defense from introducing evidence to contradict Peters's testimony. (pp. 12-15)

4. Peters's testimony did not constitute prejudicial scientific testimony that the bullets came from the same box. It merely provided a link in the chain of evidence connecting Noel to the murder. The statements by the prosecutor concerning the importance of the evidence and to which defense counsel did not object do not justify upsetting the jury verdict. (pp. 15-16)

The judgment of the Appellate Division is **REVERSED**.

JUSTICE O'HERN, dissenting, is of the view that the prosecutor improperly elevated the circumstantial evidence of matching samples to a false scientific premise, and would affirm the Appellate Division.

CHIEF JUSTICE PORITZ and JUSTICES HANDLER, GARIBALDI, and COLEMAN join in JUSTICE POLLOCK's opinion. JUSTICE O'HERN has filed a separate dissenting opinion in which JUSTICE STEIN joins.

SUPREME COURT OF NEW JERSEY
A-143 September Term 1997

STATE OF NEW JERSEY,

Plaintiff-Appellant,

v.

JUDEL NOEL,

Defendant-Respondent.

Argued September 29, 1998 -- Decided February 10, 1999

On appeal from the Superior Court, Appellate Division, opinion is reported at 303 N.J. Super. 435 (1997).

Hilary Brunell, Deputy First Assistant Prosecutor, argued the cause for appellant (Clifford J. Minor, Essex County Prosecutor, attorney).

Paul J. Casteleiro argued the cause for respondent.

Nancy A. Hulett, Deputy Attorney General, argued the cause for amicus curiae Attorney General of New Jersey (Peter Verniero, Attorney General, attorney).

Ruth Bove Carlucci, Assistant Deputy Public Defender, argued the cause for amicus curiae Public Defender (Ivelisse Torres, Public Defender, attorney).

Richard Scott Thompson, argued the cause for amicus curiae Association of Criminal Defense Lawyers of New Jersey (Lowenstein, Sandler, Kohl, Fisher & Boylan, attorneys; Theodore V, Wells, Jr., of counsel; Mr. Thompson and Steven H. Becker, on the brief).

The opinion of the Court was delivered by

POLLOCK, J.

The primary issue is whether, in the absence of statistical probability evidence, the trial court erred in admitting expert testimony concerning the similarity in composition of lead bullets found at the crime scene, in the victim's body, and among defendant's belongings. Finding that statistical evidence was essential, a majority in the Appellate Division reversed the conviction of defendant, Judel Noel, for purposeful or knowing murder, N.J.S.A. 2C:11-3a(1) and possession of a handgun for an unlawful purpose, N.J.S.A. 2C:39-4a. One judge dissented, reasoning that the absence of statistical evidence affected the weight, not the admissibility of the expert testimony. The State appealed as of right. R. 2:2-1(a)(2).

We reverse the judgment of the Appellate Division and reinstate the convictions. We hold that statistical

probability evidence is not a prerequisite to the admission of expert testimony concerning the composition of lead bullets.

I.

As Antoine Hargrove was returning to his home in Newark, he was shot in the back. He died at University Hospital several hours later. Two bullets were recovered from his body. At the crime scene, police recovered six 9mm shell casings made by Speer, a cartridge manufacturer, and four spent bullets. Two witnesses saw defendant flee from the scene.

The police arrested defendant at a pre-parole halfway house. A search of defendant's locker revealed a pouch containing eighteen 9mm bullets, nine manufactured by Speer.

At the request of the police, Charles Peters, a physical scientist with the materials analysis unit of the Federal Bureau of Investigation, examined fifteen bullets: four collected at the crime scene, two recovered from the decedent's body, and the nine Speer bullets found among defendant's personal belongings.

Peters analyzed the bullets using a process known as inductively coupled plasma atomic emission spectroscopy (ICP). ICP determines the proportions of six elements other than

lead: copper, antimony, bismuth, arsenic, tin, and silver. The bullet manufacturer adds these elements to each batch of lead. From one batch to another, the proportions in bullets of the six elements vary. Thus, the chemical composition of a bullet from one batch may match that of another bullet from the same batch, but not the composition of a bullet from another batch.

Peters divided the bullets into five compositional groups. Within each group, the bullets were of the same composition. Four of the five groups contained both a bullet from defendant's pouch and one recovered either from the crime scene or from the victim's body. For example, Group One included six bullets that were analytically indistinguishable: one bullet from the crime scene, one from the victim's body, and four from defendant's pouch. Group Four, which consisted of a solitary bullet found at the crime scene, did not match any other bullets.

At trial, Peters testified that, in his experience and that of his unit, "bullets that come from the same box have the same composition of lead and bullets that come from different boxes . . . will have different compositions." He explained that the manufacturer fills a given box with bullets from a single batch of lead. Consequently, those bullets will

possess the same chemical composition. Because mixing may occur during storage, however, bullets of different compositions may be found in the same box. Peters concluded that he would not expect random batches of lead to produce the match that existed among the subject bullets.

Before conducting his analysis, Peters had visited the Speer manufacturing plant in Lewiston, Idaho. He limited his testimony on the manufacturing process to an explanation that each bullet is extruded from a "billet," or seventy-pound cylinder of lead. Each batch of lead produces a number of billets. A billet yields approximately 4,300 bullets. About five billion bullets are manufactured in the United States each year, and at least fifty thousand bullets may have the same composition.

The Appellate Division found that the trial court had committed reversible error in allowing Peters to testify, absent foundation evidence of statistical probability, about the identical composition between the bullets recovered from the crime scene and the victim's body and those found in defendant's pouch. 303 N.J. Super. 435, 445 (1997). As the Appellate Division perceived the issue, Peters's testimony depended on the statistical probability that the two sets of bullets would have the same composition. Ibid. According to

the dissent, however, the absence of a statistical foundation affected the weight, not the admissibility, of Peters's testimony. Id. at 453. The dissent pointed out that Peters's testimony was not that the bullets at the crime scene came from defendant's bag, but that some of the bullets from the crime scene and defendant's pouch came from the same batch. Id. at 458.

In addition, the Appellate Division was split on the issue the influence exerted by the expert's testimony. The majority believed that the expert's "extensive and impressive credentials" resulted in an "unwarranted enhancement of probative weight." Id. at 445, 448. The dissent, by contrast, noted defense counsel's "probing and able cross-examination of the expert," id. at 458, and concluded that the expert's testimony "merely added another link to the chain of evidence," id. at 455.

Historically, statistical evidence has not been a prerequisite to the admission of matching samples. For example, in cases involving matching blood samples, statistical evidence of the probability of a match has not been required to establish a blood stain as a link in the chain of evidence. State v. Beard, 16 N.J. 50, 58-59 (1954); State v. Kelly, 207 N.J. Super. 114, 121-22 (App. Div. 1986).

Similarly, expert testimony about matching soil and hair samples has been deemed admissible, with the weight of the evidence left to the jury. State v. Baldwin, 47 N.J. 379, 392 (1966). Finally, expert testimony about matching carpet fibers has been admitted in the absence of statistical evidence about the probability of the match. State v. Koedatich, 112 N.J. 225 (1988); State v. Hollander, 210 N.J. Super. 453, 467-68 (App. Div. 1985).

In Koedatich, a capital case, the State presented evidence of matching fibers from the defendant's automobile carpet and seat covers. Koedatich, supra, 112 N.J. at 242. The defense attacked the weight of the evidence by showing that manufacturers produced hundreds of thousands of yards of such fibers in a given year. Id. at 245. We upheld the admission of the evidence of the matching fibers, observing that the quantity of the fibers went to the weight, not the admissibility of the evidence.

Similarly, in the present case, the expert's testimony established a match among the bullets found in defendant's belongings, at the crime scene, and in the victim's body. Defendant contends that the large quantity of bullets produced by the manufacturer renders the match among the bullets inconclusive. As with the matching fiber samples, however,

the production of a large quantity of comparable samples affects the weight, not the admissibility of the evidence.

In reversing defendant's conviction because of the lack of statistical evidence regarding the incidence and frequency and distribution of bullets, the Appellate Division relied on our decision in State v. Spann, 130 N.J. 484 (1993). Spann, however, is distinguishable.

In Spann, the State sought to prove that the defendant had sexually assaulted the victim, who subsequently gave birth to a child, through DNA analysis of the blood tissue of the defendant and the child. The State's expert testified to a 96.55% likelihood that the defendant was the father of the child. Finding the testimony inadmissible, this Court reversed the conviction and remanded the matter for retrial. The expert's opinion, which was presented as "scientific" and "objective," relied on the assumption that the probability of paternity before the analysis was 50%. The prior probability of paternity was based on the belief that it was as likely that the defendant was the father as it was that he was not. Stated numerically, the prior probability of paternity was 0.5. The flaw in the assumption is that the prior probability of paternity must vary with the facts of each case. Otherwise, the probability would not vary even if the

defendant were out of the country at the time of conception. No one, however, informed the jury of the effect that a different estimate of probability would have on the calculation of the probability that the defendant was the father. Thus the jury was unable to calculate the probability of paternity even if, on considering facts other than the blood and tissue analysis, its estimate of the probability differed from that of the State's expert. In that context, the expert testimony usurped the role of the jury and compelled a verdict of guilt.

Unlike in Spann, the jury in the present case received the guidance it needed to discharge its function. The expert explained the chemistry of lead analysis. He also explained why bullets of the same chemical composition generally came from the same box and why a single box may contain several bullets of different compositions. Left for the jury was the determination whether the bullets at issue came from the same box.

In explaining to the jury the issue of the prior probability of paternity, the State's expert in Spann relied on Bayes theorem, a mathematical concept used in probability analysis. By contrast, the jury in the present case could evaluate the expert's testimony without recourse to

mathematical calculations. Like juries assessing samples of blood, soil, and fibers, the jury here did not require statistical data to discharge its duties. Mr. Peters's testimony was comparatively straightforward. Contrary to the Appellate Division, we conclude that his opinion as an expert was not likely to create an "unwarranted enhancement of probative weight." 303 N.J. Super. at 445.

Our conclusion comports with that of courts from other jurisdictions. For example, the Federal Court of Appeals for the Eighth Circuit has held that questions regarding whether bullets come from the same box affect the weight of the evidence rather than its admissibility. See United States v. Davis, 103 F.3d 660, 673-74 (8th Cir. 1996), cert. denied, Davis v. United States, ___ U.S. ___, 117 S.Ct. 2424, 138 L.Ed.2d 187 (1997). The court pointed out that "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." Id. at 674 (citing Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 596 (1993)). Similarly, the Supreme Judicial Court of Massachusetts has allowed an FBI agent to testify that bullets in the victim's body and those found on defendant "come from the same box of ammunition or

from different boxes that were manufactured at the same place on or about the same date." Commonwealth v. Daye, 587 N.E.2d 194, 207 (1992). Finally, the Supreme Court of Oregon permitted expert testimony that bullets could have come from the same batch of metal, noting that the defendant's expert properly pointed out the weaknesses of the evidence. State v. Krummacher, 523 P.2d 1009, 1012-13 (1974).

ICP is an accepted method of bullet lead analysis. The compositional match among the bullets increased the probability that the bullets in the victim came from the defendant. That evidence constituted a link in the prosecution's chain of evidence. The defense attempted to undermine that conclusion by cross-examining the expert, by showing that many bullets of the same composition had been manufactured, and by arguing an alternative conclusion to the jury. Consequently, we find that the trial court did not err in permitting Peters to testify about the similarity of the composition of the lead bullets.

We also conclude that Peters did not exceed the limits of his expertise in testifying about the manufacturing process. Peters testified that bullets of the same composition generally come from the same box, although a single box may contain bullets of several different compositions. He based

his testimony on years of analyzing boxes of bullets and on a tour of the Speer plant. That tour may not qualify him as an expert on bullet manufacturing for all purposes. When combined with his substantial experience in analyzing bullets, however, the tour provided him with the "minimal technical training and knowledge essential to the expression of a reliable opinion." Hake v. Township of Manchester, 98 N.J. 302, 316 (1985); see Landrigan v. Celotex Corp., 127 N.J. 404, 421-22 (1992) (permitting epidemiologist to testify that asbestos can cause colon cancer); Rubanick v. Witcho Chemical Corp., 125 N.J. 421, 426, 452 (1991) (allowing biochemist to testify that PCBs can cause colon cancer). Although experts generally may not express opinions outside their areas of expertise, those areas may overlap, and in certain circumstances an expert in one area may be qualified to express an opinion in another. Rosenberg by Rosenberg v. Cahill, 99 N.J. 318, 331-34 (1985). Here, Peters's testimony regarding the arrangement of bullets in a box provided an appropriate basis for the jury to evaluate the significance of the bullet matches.

Underlying our opinion is the rationale that jurors will draw the appropriate inferences from matching samples such as fibers, soil, blood, or bullets. Our holding does not

preclude an objecting party from offering statistical evidence to rebut the relevance of such samples. The admission of statistical evidence, like that of matching samples, is a matter that initially reposes in the sound discretion of the trial court.

Our dissenting colleagues agree that "there need not be any stated percentage of probability before an expert witness may testify about the composition of lead bullets." Post at __ (slip op. at 2). The dissent asserts, however, that the need for such a statement "is not the thrust of the Appellate Division's opinion." Id. That assertion ignores the primary point of disagreement in the Appellate Division, which was the need for probabilistic testimony. See ante at __ (slip op. at 5-6). Because of that disagreement, this Court heard the matter as an appeal as of right under R. 2:2-1(a)(2). In amicus briefs, moreover, the Attorney General, the Public Defender, and the Association of Criminal Defense Lawyers have debated the issue vigorously.

For our dissenting colleagues, the issue is whether Peters's testimony provided an adequate basis to support the conclusion that "the bullets not only 'came from the same source of lead at the manufacturer' but were 'sold from the same box." Post at __ (slip op. at 3). According to the

dissent, the issue is not whether Peters's testimony regarding the matches between the bullets was admissible, but whether too many bullets were in circulation "to justify any real inference of guilt." Post at __ (slip op. at 4). This issue focuses on whether the evidence was sufficiently reliable to permit the jury to infer that the various bullets came from the same box. A second concern of the dissent is that the prosecutor's summation elevated the testimony from "a bit of circumstantial evidence that adds to the State's case" to "scientific fact," led the jury to ignore the large number of bullets in circulation, and so prejudiced the jury that we must set aside its verdict. Slip op. at 8.

The dissent charges that "the State was able to present this case to the jury as though it had scientific proof that the bullets in question came from the same box, even though there were at least 49,985 other bullets in circulation." Post at __ (slip op. at 4). According to the dissent, "[t]he problem in the case is not what the expert testified to, but with what the State has attempted to do with his testimony." Post at __ (slip op. at 4).

In particular, the dissent highlights three statements from the State's summation:

> It is a very precise scientific process....
> ...

> You could almost see [Peters] in a white lab coat. You could almost see him in math class in high school in the back. He had all the answers. He’s a straight shooter.
> ...
> The key ... is the number of sources of lead; the number of batches. Millions of batches; each one unique like a snow flake, like a fingerprint.

At trial, defendant did not object to the first two statements. Not even in the Appellate Division did he challenge them. In overruling defendant's objection in the prosecutor's final statement to the analogy between snowflakes and bullets, the trial court characterized the statement as a "metaphor."

In his own closing argument, defense counsel, apparently anticipating the prosecutor's summation, argued that many boxes contain bullets matching the ones at issue. That argument directed the jury's attention to the issue that concerns the dissent, "whether too many bullets were in circulation to justify any real inference of guilt." During the course of the trial, moreover, defense counsel vigorously cross-examined Peters. Finally, nothing prevented defense counsel from introducing evidence contradicting Peters’s testimony or from requesting a charge on the jury's use of that testimony if it found the evidence to be unreliable or misleading.

Peters did not testify about the probability that the bullets came from defendant’s bag. Contrary to the dissent, moreover, his testimony did not constitute prejudicial scientific testimony that the bullets came from the same box. His testimony merely showed that some of the bullets from the crime scene, defendant’s bag, and the victim’s body contained the same trace elements. As such, the testimony constituted a link in the chain of evidence connecting defendant to the murder.

Excessive statements from both sides are a regrettable fact of life in criminal trials. In such trials, an objection by counsel remains as the first line of defense. Although the prosecutor's statement may have been more temperate, it, particularly in the absence of an objection, does not justify upsetting the jury verdict. Given the realities of adversary proceedings, the prosecutor’s remarks pass as fair comment.

The judgment of the Appellate Division is reversed, and defendant's conviction is reinstated.

CHIEF JUSTICE PORITZ and JUSTICES HANDLER, GARIBALDI, and COLEMAN join in JUSTICE POLLOCK's opinion. JUSTICE O'HERN has filed a separate dissenting opinion in which JUSTICE STEIN joins.

SUPREME COURT OF NEW JERSEY
A-143 September Term 1997

STATE OF NEW JERSEY,

Plaintiff-Appellant,

v.

JUDEL NOEL,

Defendant-Respondent.

O'HERN, J., dissenting.

In reversing the judgment of the Appellate Division, the Court states the question thus:

> The primary issue is whether, in the absence of statistical probability evidence, the trial court erred in admitting expert testimony concerning the similarity in composition of lead bullets . . . .
>
> [Slip op at 2.]

I agree that there need not be any stated percentage of probability before an expert witness may testify about the composition of lead bullets. That is not the thrust of the Appellate Division's opinion.

Defense counsel never objected to the State's expert testifying about lead composition tests performed on two spent bullets recovered from the victim's body, four spent shells recovered from the crime scene, and nine cartridges recovered from a box of ammunition taken from the defendant's clothing locker. Using an accepted chemical process, the witness analyzed the lead composition of each of the bullets on the basis of their content of various trace elements such as silver, tin, copper, and arsenic. The witness identified five compositional types of bullets. One group having the same trace elements included: one bullet from the hospital; one bullet from the victim; one bullet from the crime scene; and four bullets taken from the defendants. The second group included one bullet from the victim and two from the defendant. The third group included one bullet from the crime scene and two of the defendant's bullets. The fourth group contained only one bullet, a crime scene bullet. The fifth group contained one bullet from the crime scene and one bullet of the defendant's.

The expert described the process of bullet manufacturing. He said that lead bullets are made from an initial batch of molten lead and that there is a variation of the presence and percentages of trace elements in each batch. Thus it is highly improbable that any two batches or sources of bullets would have the identical composition. Because the bullets possessed by the defendant had the

same composition as those that killed the victim or were found at the crime scene, the expert gave the opinion that such bullets had come from the same batch or source of lead.

So far, so good. But in its Appellate Division brief the State asserted that this testimony is reliable scientific proof not only that the bullets "came from the same source of lead at the manufacturer" but were "sold in the same box." There was simply no reliable scientific proof of that latter proposition.

To simplify the analysis, let us use a more homely example. Assume that a person who committed a crime was seen wearing Levi's jeans and assume, as well, that an accused suspect was found to be in possession of a similar pair of Levi's. Does it follow that the two pairs of jeans were sold in the same box? Of course not. And why? Because there are just too many of the same kind of pants in circulation to justify any conclusive inference of guilt. That is the point of the Appellate Division opinion. The problem in the case is not with what the expert testified to, but with what the State has attempted to do with his testimony.

The State's ballistics expert was quite candid in explaining what he meant by a batch of lead. It is a source of lead of unknown quantity. From this unknown quantity there were extruded bullets, how many he or we cannot know. He testified that during the manufacturing process of bullets each batch or source of molten lead

is poured into blocks called "billets." Although the witness gave the opinion that approximately 4,300 bullets could be made from each billet,[1] he was unable to quantify the number of bullets or billets that could be made from a batch. The State's expert, however, did testify that "at least 50 thousand," identical bullets could come from the same source (the batch) and would have the same compositional mix.

Notwithstanding that fact, the State was able to present this case to the jury as though it had scientific proof that the bullets in question came from the same box, even though there were at least 49,985 other bullets in circulation similar to the matching bullets. The point of the Appellate Division opinion is the point made by this Court in State v. Spann, 130 N.J. 484 (1993). The prosecution may not present false scientific premises to a jury and proffer it as "a 'scientific' assumption, [and] an accepted part of a scientific calculation, 'objective', 'neutral', [and] 'fair' [when i]t is no such thing. . . ."[2] Id. at 497. Had the prosecution wished to state

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[1]There is confusion in the transcript concerning the number of bullets referred to by the State's expert. The transcript states, "I think around 43--4 thousand 3 hundred; somewhere around that." For purposes of this dissent, I accept 4,300 bullets as the more probable reading of his testimony.

[2]In Windmere v. International Insurance Co., 105 N.J. 373, 375 (1987), scientific evidence was proffered to state that a suspected arsonist's voice was the same voice as the voice on a tape that had called in a bomb threat. Fortunately

with scientific accuracy the results of the tests, it would have said something like this:

> Ladies and Gentlemen of the Jury.
> As you have heard, there are at least 50,000 bullets similar to the fifteen bullets found at the crime scene. There are thus at least 49,985 possible origins for the bullets found at the crime scene--other than from the defendant.[3]

Of course the State would not make that argument. Instead, although from a scientifically honest viewpoint one would have to have said that the chance may have been fifty thousand to one, the State was able to suggest to the jury that there was scientific certainty that the bullets came from the same box, even elevating the status of the ballistics expert to a mythical "man in the white coat." This is what the prosecutor said:

> Finally Mr. Charles Peters of the FBI [the ballistics expert]. I realized that was some sophisticated testimony and I know I personally had trouble following it. <u>But I hope the conclusions are what came clear</u>. <u>It is a very</u>

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for the suspect the real bomber confessed before the suspect was further implicated. In hindsight, we were able to state that voiceprints are not a reliable means of identifying the human voice.

[3]For convenience, I use the number 50,000. There were actually four matches between bullets linked to the crime and bullets linked to the defendant, and therefore approximately 200,000 bullets in play. (Each match means there was a common source or batch.) The fact that there were four matches does solidify the circumstantial evidence but, again, there was no "precise scientific process" to sustain that inferential boost.

precise scientific process that has been used for, I believe, he said about, about thirty years to test these bullet leads and his testimony is critical to this case because it completely blows away the murder theory advanced by the defense that [the witness] has somehow engineered the murder.

Now do you think Mr. Peters [the State's expert] was a liar? He's not a cop. He's not even an FBI agent. Charles Peters is a scientist and he looked like a scientist, didn't he? You could almost see him in a white lab coat. You could see him in math class in a high school in the back. He had all the answers. He's a straight shooter. [He] did not testify beyond what the results of his examination were. [He] didn't try to make it out to be more than what it was, but it is something very critical in this case.

Basically, what he told us was that an examination of bullets, whenever a manufacturer is going to run a line of bullets, they order a source of lead from a lead smelter. I asked him if that was like a "batch." He said it was. The scientists like using the word "source." I think it is easier to conceive as a batch of lead. And he said that there are millions, literally millions, of these batches of lead out in circulation and from those millions of batches of lead out in circulation, there are billions of bullets produced each year.

The key, I submit to you, is not what Mr. Roberts said it is, not about the number of bullets produced--the number of bullets produced, the key is the number of sources of lead, the number of batches. Millions of batches, each one unique like a snowflake; like a fingerprint.

Informing the jury that the lead in some of the bullets found at the crime scene was identical to the lead in some of the bullets seized from Mr. Noel says little more than what the jury already knew, that the bullets were of the same size and came from the same manufacturer. Yet the net effect of the allusions to the "white lab coat," the fingerprint and snowflake comparisons, and the "very precise science" and "he had all the answers" comments was that the State had (as its appellate brief suggests) conclusive scientific evidence that both sets of bullets came from the same box. This was highly prejudicial.

Before us, in oral argument, the State insisted that it had never offered the ballistics evidence as proof of a match as in DNA or fingerprinting but merely as a "bit of circumstantial evidence that adds to the State's case." Because that is all that the ballistics evidence established, that explains why defense counsel did not at the end object to it. It was the prosecutor who elevated the status of the proofs to create a false scientific premise. He did not describe Mr. Peters' testimony as merely a "bit of circumstantial evidence." The prosecutor said that the expert testimony "is critical to this case because it completely blows away the murder theory advanced by the defense. . . ." To return to our example of matching Levi's jeans, we must ask whether the State would be able fairly to assert that the fact that a defendant had a pair of

pants similar to the perpetrator's would "blow away" an alibi defense. Of course not. It was the elevation here of a "bit of circumstantial evidence" to a false scientific premise that was erroneous.

To summarize, the Appellate Division was entirely satisfied that plasma atomic emission spectroscopy of lead bullets is a process adequately accepted by the scientific community and produces sufficiently reliable results to warrant the admission into evidence of expert testimony regarding that test and the results derived therefrom. From that test you can tell whether two bullets are alike, not whether if there are fifty thousand similar bullets, the two in fifty thousand that you are looking at came from the same box. In reversing the defendant's conviction, it was the latter false scientific premise that the Appellate Division condemned. I would affirm its sound judgment.

Justice Stein joins in this opinion.

SUPREME COURT OF NEW JERSEY

NO. A-143 SEPTEMBER TERM 1997

ON APPEAL FROM Appellate Division, Superior Court

ON CERTIFICATION TO

STATE OF NEW JERSEY,

Plaintiff-Appellant,

v.

JUDEL NOEL,

Defendant-Respondent.

DECIDED February 10, 1999

Chief Justice Poritz PRESIDING

OPINION BY Justice Pollock

CONCURRING OPINION BY

DISSENTING OPINION BY Justice O'Hern

CHECKLIST	REVERSE	AFFIRM	
CHIEF JUSTICE PORITZ	X		
JUSTICE HANDLER	X		
JUSTICE POLLOCK	X		
JUSTICE O'HERN		X	
JUSTICE GARIBALDI	X		
JUSTICE STEIN		X	
JUSTICE COLEMAN	X		
TOTALS	5	2	