SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF NEW YORK: CRIMINAL TERM: PART 75

THE PEOPLE OF THE STATE OF NEW YORK	:	
-against-	:	DECISION AND ORDER
JEIFRY BRITO VASQUEZ,	:	Ind. No. 2203/2019
Defendant.	:	

ROBERT M. MANDELBAUM, J.:

Charged with two counts of criminal possession of a weapon and one of reckless endangerment, all in the second degree, defendant moves to preclude from his upcoming trial expert testimony regarding microscopic ballistics and forensic toolmark identification and comparison or, in the alternative, for a hearing on the admissibility of such evidence pursuant to Frye v United States (293 F 1013 [DC Cir 1923]).

The proffered evidence relates to a cartridge casing recovered near a public street where surveillance video shows a male, alleged to be defendant, shooting a firearm into the air, and a cartridge casing and loaded firearm recovered from defendant's bedroom. Having microscopically examined and compared the cartridge casings with four laboratory test-fires from the firearm, the People's expert intends to testify, if permitted, that in his opinion the cartridge casing recovered from defendant's bedroom was discharged from the same firearm as the test-fires, based on the observed agreement of their class characteristics and sufficient agreement of their individual characteristics. The examiner was unable to conclude, however, based on the same standards, that the cartridge casing recovered from the street was (or was not) fired from the same firearm as the test-fires.

Expert testimony pertaining to microscopic ballistics and toolmarks has long been admitted in New York (see e.g. People v Givens, 30 Misc 3d 475 [Sup Ct, NY County 2010]; see also People v Magri, 3 NY2d 562, 566 [1958]). Defendant contends, however, that such testimony should no longer be deemed admissible based primarily on People v Ross (68 Misc 3d 899 [Sup Ct, Bronx County 2020]), which in turn relied heavily on a 2016 report from the President's Council of Advisors on Science and Technology (PCAST).

Pursuant to Frye, which governs in New York (see People v Wesley, 83 NY2d 417 [1994]), the standard for admission of scientific evidence is whether the discipline or methodology is generally accepted in the relevant scientific community. The test is not whether a court, substituting its judgment for that of trained experts, determines for itself that the scientific evidence is reliable (cf. Daubert v United States, 509 US 579 [1993]). Unanimity of opinion is not required, merely general acceptance (see Sean R. v BMW of N. Am., LLC, 26 NY3d 801, 809 [2016]; People v Middleton, 54 NY2d 42, 49 [1981]). Even assuming that Ross can be colorably read as having applied the requisite Frye, rather than Daubert, standard, despite its extensive analysis of the legitimacy and reliability of the science itself, its principal reliance on arguments pressed in the PCAST report, which in turn questioned the reliability of toolmark evidence, does not call into question the general acceptance of that evidence in the relevant community.

Defendant would define the relevant scientific community as consisting of, essentially, scientists or, more precisely, experts in "scientific methodology," which is to say, scientists. But to expand the field so broadly is almost to guarantee the existence of outliers, or naysayers, or people in other disciplines far removed from the relevant scientific community, so that, once aggregated, it becomes possible to articulate a scenario in which general acceptance

can be called into doubt. But the relevant scientific community is not all those trained in the scientific method – i.e., scientists – but rather trained and accredited experts in the field of microscopic ballistics and forensic firearm and toolmark examination, as well as forensic scientists, statisticians, and other non-firearm practitioners enumerated in the multiple validation studies that have been conducted to demonstrate the reliability of the discipline and its examination results – a community in which acceptance of the challenged methodology is nearly universal.[1]

That forensic community, which bases its work on decades of peer-reviewed, published research, is governed by protocols and standards set by the Association of Firearms and Toolmarks Examiners, the Scientific Working Group for Firearms and Toolmarks, and the Organized Scientific Area Committee Firearm and Toolmark Subcommittee. It requires stringent adherence to international accreditation standards and, indeed, its practitioner at issue here – the New York City Police Department Firearms Analysis Section (FAS) – has achieved repeated laboratory accreditation to International Organization for Standardization standards by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board. FAS mandates that every laboratory examination begin from the same "null hypothesis" – an unbiased presumption that compared items do not stem from a common source – and comprise

[1] Although at its Frye hearing the Ross court purported to qualify an expert in the deemed-relevant field of "scientific research and methodology," the proffered expert in that field was in actuality a law school dean who had written on the topic of scientific evidence and whose scientific training was in psychiatry. The other defense expert credited by the court, purportedly in the fields of psychometrics, study design, and statistics, was not a statistician but a psychologist whose research focused on child abuse witnesses and juror reaction to evidence. Finally, the court called its own witness, a statistician, who was questioned by the court as to the validity of the studies showing the validity of toolmark examination (but see People v Wesley, 83 NY2d 417, 439 [1994, Kaye, C.J., concurring] [under Frye, as opposed to Daubert, judges should be "counting scientists' votes," not "verifying the soundness of a scientific conclusion" (internal quotation marks and citations omitted)]).

independent evaluations by two qualified and highly trained examiners, the second of whom is blind to the results of the first.

Defendant's denigration of forensic scientists and practitioners, as opposed to "academic scientists," reflects an elitist view of applied science as a poor relation of pure science. A wide variety of applied science departments, however, crowd the halls of every major university. Forensics are taught in many of them.[2]

Nor does the application of some subjective judgment in order to reach an ultimate conclusion as to whether particular items of ballistics evidence do or do not match render the field illegitimate. It is in the very nature of forensic feature-comparison disciplines – including examination and comparison of DNA samples, latent fingerprints, tiremarks, handwriting, hair, bitemarks, and footwear patterns, as well as firearm and toolmark identification – that a trained eye must render a final judgment.

In any event, the PCAST report has been thoroughly discredited. In United States Department of Justice Statement on the PCAST Report: *Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods* (2021) (DOJ Statement), the United States Department of Justice rejected the PCAST report, criticizing "its analysis, conclusions, factual inaccuracies, and other mistakes" (id. at 1). Among the PCAST report's "several fundamentally incorrect claims" (id.) are that traditional forensic pattern comparison

[2] Defendant contends, citing an "expert affidavit": "[M]any forensic science disciplines, including firearms and toolmarks, have minimal educational requirements. While the typical firearms and toolmarks examiner may have expertise in the class characteristics and operation of various firearms, they are not required to have advanced training in mathematics, statistics, signal processing, and experimental design. These topics are routinely covered in graduate programs in the scientific academic disciplines; they are also crucial for designing, conducting, and evaluating validation studies . . . . The expertise required to conduct validation studies does not rest with practitioners. These skills are most often obtained in PhD programs that require defense of a dissertation."

disciplines, which include firearm and toolmark identification, are part of the scientific field of metrology. But as the Department of Justice has explained, toolmark examiners visually *compare* individual features observed in two examined samples; they do not *measure* – the gravamen of the field of metrology (see id. at 2-9). Toolmark comparison results are expressed in nominal terms, or words, not in quantities or magnitudes.[3] Therefore, PCAST's fundamental criticism that toolmark examination fails to adhere to metrological standards is misplaced.[4]

The DOJ Statement further refuted the errors inherent in PCAST's unsupported claim that only a single form of study can be properly applied to validate feature-comparison methods. Nevertheless, the very type of study called for by PCAST – a "black box study" – has, since the time of the PCAST report, been repeatedly utilized to validate firearm and toolmark comparison methodology.

Most significantly, the Appellate Division, *after* Ross was decided, has repeatedly upheld the admission of ballistics expert testimony without the need for a Frye hearing (see People v Frederick, 186 AD3d 1398, 1399-1400 [2d Dept 2020]; People v Johnston, 192 AD3d 1516, 1522-1523 [4th Dept 2021]; see also People v Gerard, Sup Ct, NY County, Dec. 6, 2021, Jackson, J., indictment No. 1852/19). "A court need not hold a Frye hearing where it can rely upon previous rulings in other court proceedings as an aid in determining the admissibility of the proffered testimony. Once a scientific procedure has been proved reliable, a Frye inquiry need not be conducted each time such evidence is offered [and courts] may take judicial notice of reliability of the general procedure" (People v LeGrand, 8 NY3d 449, 458 [2007] [internal

[3] In complaining that the examiner's proffered conclusions are vague because they are not given in quantitative terms, defendant appears to concede that the field is non-metrological.
[4] As noted, the Ross court took testimony at its Frye hearing from a proffered expert in psychometrics, a field of study within psychology concerned with the theory and technique of measurement (that is, metrology).

quotation marks and citation omitted]; see also People v Williams, 35 NY3d 24, 38 [2020] ["Judicial precedent may also support a conclusion with respect to the general reliability of a disputed scientific technique short of a hearing"]).

Even if the People are permitted to offer expert testimony at trial in the field of firearm and toolmark examination, and even if the expert witness is permitted to render an opinion as to the cartridge casing recovered from defendant's bedroom, defendant seeks to preclude the People's ballistics expert from further testifying that the cartridge casing separately recovered from the street opposite his apartment, where he is alleged to have discharged the firearm, can be neither identified nor eliminated as having been fired from the weapon found in his room. The People's expert proposes to explain that the recovered cartridge casing shared class characteristics with defendant's firearm, although he is unable to determine whether they also shared or failed to share individual characteristics – in other words, that the cartridge casing was of the same make and model as defendant's gun, but it is impossible to say whether it was, or definitively was not, shot from that particular gun.

The People's theory is that the cartridge casing recovered from across the street from defendant's residence was ejected from the firearm he is alleged to have discharged at that location. Defendant contends that, inasmuch as it was found some hours after the shooting, it is not. That the fact is disputed does not, as defendant contends, render the evidence irrelevant. Evidence is relevant if it has "any tendency in reason to prove any material fact" (People v Lewis, 69 NY2d 321, 325 [1987] [internal quotation marks and citations omitted]) – in other words, if "it makes determination of the action more probable or less probable than it would be without the evidence" (People v Scarola, 71 NY2d 767, 777 [1988]). All relevant evidence is admissible at trial unless admission violates some exclusionary rule (see People v Alvino, 71

NY2d 233, 241 [1987]). That the recovered cartridge casing was of the same type as defendant's gun makes it more probable that it came from that gun that it would be without the evidence, rendering the evidence both relevant and admissible. To be sure, all evidence that supports the People's case is in some real sense prejudicial to defendant. But evidence is not *unduly* prejudicial merely because it tends toward a finding of guilt.

Of course, the court rules only as a gatekeeper on the admissibility of the evidence. To the extent defendant questions the conclusions reached by the People's expert, he is free to challenge them, whether through cross-examination or otherwise. That a minimum foundation for admissibility has been laid does not immunize testimony from cross-examination. But neither does the fact that it may be vulnerable to foreseeable cross-examination render it inadmissible. Once admitted, it is for the jury to decide whether to accept or reject it, whether to credit the testimony of the proffered expert or not (see CJI2d[NY] Expert Witness), including if defendant were to offer a competing expert who has reached a different conclusion.

Accordingly, defendant's motion to preclude or for a Frye hearing is denied.

This opinion shall constitute the decision and order of the court.

Dated: July 24, 2022
New York, New York

ROBERT M. MANDELBAUM
Acting Justice of the Supreme Court