

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

UNITED STATES	:	CRIMINAL ACTION
	:	
vs.	:	
	:	
JAMES McCLINTOCK	:	
	:	No. 05-441

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Gene E.K. Pratter, J.

January 5, 2006

The Government has moved to exclude testimony of Defendant James McClintock's forensic anthropology expert in this criminal case involving the armed robbery of a bank. Mr. McClintock intends to present the testimony of this expert to refute identification testimony of Government witnesses.¹

INTRODUCTION

Mr. McClintock is charged with one count of armed bank robbery in violation of 18 U.S.C. § 2113(d). The Government contends that Mr. McClintock has been identified by several witnesses as the person who robbed a Wachovia Bank branch located at 6420 Frankford Avenue on January 23, 2004, including at least one eyewitness who was at the bank at the time of the robbery and witnesses who recognized Mr. McClintock from a bank surveillance photograph that was published in the Philadelphia Daily News shortly after the robbery.

According to the Government, Mr. McClintock entered the bank on the pretense of

¹Mr. McClintock has filed his own Motion to Admit Expert Testimony of forensic anthropologist Janet Monge, Ph.D., as well as a supplement to that motion. Both motions present the Court with the identical issue, to wit, whether Dr. Monge will be permitted to testify at trial. Accordingly, these Findings of Fact and Conclusions of Law will resolve both motions.

opening a new account and then professed to have a bomb in his possession and demanded \$100,000 in cash. After being told that the bank did not have that much cash on the premises, Mr. McClintock allegedly took all the cash the bank had available, which amounted to approximately \$12,344, and fled, leaving a black case he purported to be a bomb at the door of the bank and instructing the employees not to contact the police for at least 20 minutes or he would detonate the bomb.² Upon further investigation, the bomb was discovered to be a hoax. Mr. McClintock was apprehended and arrested after he was identified by several persons as being the person in a bank surveillance photograph of the robber.

One day before trial was scheduled to begin, on December 12, 2005, the Government filed a motion in limine to exclude the testimony of Dr. Janet M. Monge, a forensic anthropologist listed as a defense witness. Dr. Monge is expected to testify that the physical attributes of the robber in the surveillance photograph, specifically the attachment of the robber's earlobes to his neck ("attached earlobes"), refutes the possibility that Mr. McClintock is the robber because Mr. McClintock's earlobes are not attached to his neck. In its Motion, the Government requested a hearing pursuant to Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), to assess whether Dr. Monge meets the scientific and/or technical admissibility requirements set forth in the Federal Rules of Evidence.³ As indicated above, Mr. McClintock

² The robber asserted that he was wired to an electronic device which gave him access to the Philadelphia Police department radio system and would, therefore, know if the police had been contacted.

³The Government additionally argued that because Mr. McClintock gave notification of his intent to call Dr. Monge on November 30, 2005 and did not provide the Government with a copy of her report until December 5, 2005, the Government would be unfairly prejudiced should such testimony be admitted, thereby supporting the outright disallowance of the testimony. Because trial was continued from the December date, this untimeliness issue is moot and will not

then filed a Motion to Admit Expert Testimony of Dr. Monge and, later, a Supplement to the Motion to Admit Expert Testimony.

The Court held an evidentiary hearing to consider whether Dr. Monge is qualified as an expert, pursuant to the criteria set forth in Daubert v. Merrell Dow Pharmaceuticals, Inc., *supra*, and Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137 (1999), on December 28, 2005 and January 3, 2006. The Court's findings of fact and conclusions of law follow.

FINDINGS OF FACT

1. Janet Monge, Ph.D., is a physical anthropologist and forensic anthropologist who is presently employed at the University of Pennsylvania Museum and also teaches graduate and undergraduate students at the University and serves as a forensic anthropologist consultant. Janet M. Monge, Curriculum Vitae, Deft. Ex. 1. Dr. Monge has worked in the field of physical anthropology since 1983. Physical anthropology is primarily the study of human variation, and forensic anthropology is a sub-discipline of physical anthropology in which "the skills or techniques in biological/physical anthropology" are applied "to various kinds of legal cases." Dec. 28, 2005 Transcript ("Dec. Tr." at 15: 12-17.)

2. Dr. Monge earned her Ph.D. in Anthropology from the University of Pennsylvania in 1991. Dec. Tr. at 8: 22-23.

3. As part of her doctoral curriculum, Dr. Monge took courses that included photographic methods and comparisons and has taken exams with respect to such methods and comparisons. Dec. Tr. at 12: 7-25; 13: 14-18. She has also studied and taken examinations on physical characteristics of the human ear. Dec. Tr. at 20: 8-9. Dr. Monge has made such

be addressed by the Court.

photographic comparisons of human physical characteristics for approximately 30 years. Dec. Tr. at 13: 10-13.

4. In conducting photographic comparisons, Dr. Monge analyzes criteria that distinguish people from each other in morphological form. One type of analysis that Dr. Monge conducts is a comparison persons' ears for the purpose of assessing whether there are unique and immutable characteristics that would assist in the identification of an individual. Dec. Tr. at 24-27. An "immutable characteristic" is one that does not naturally change over time. Dec. Tr. at 26: 12-21. Earlobe characteristics such as being attached or unattached are examples of immutable physical characteristics. Dec. Tr. at 26-27.

5. Dr. Monge has conducted or attempted to conduct this type of ear structure comparison analysis in approximately 40 other instances in which she was not satisfied that sufficient distinctions could be discerned from the photographic evidence to permit identification conclusions. Dec. Tr. at 18: 15-25; 19: 1-7. Her photographic comparison analysis in connection with this case, however, is the first instance in which Dr. Monge has concluded that there exists a definitive distinction between the surveillance photographs and the photographs of a specific person, in this instance the defendant, Mr. McClintock. Id.

6. Each time she has conducted such an analysis, Dr. Monge has consulted with other forensic anthropologists or advanced anthropology graduate students in order to test her conclusion that the data does or does not permit a determination to be made. Dec. Tr. at 25: 19-23.

7. In this case, Dr. Monge was contacted by counsel for Mr. McClintock and asked to review eight surveillance photographs taken at the victim bank on the date of the robbery.

Dec. Tr. at 27: 14-15. After examining the photographs by scanning them into her computer equipment and enlarging them, Dr. Monge concluded that at least four of the surveillance photographs were clear enough and otherwise suitable for her to examine more closely and compare with photographs of Mr. McClintock taken of him in prison by a colleague of defense counsel. Dec. Tr. at 28: 1-25; 34: 24-25; 35: 1-14; 68: 19-25.

8. The purpose of Dr. Monge's analysis was to compare the ear structure, and, particularly, the earlobes of the bank robber shown on the surveillance photographs to the ear structure and earlobes of Mr. McClintock.

9. Dr. Monge acknowledges that efforts to duplicate all conditions extant in any given photograph would be subject to "a high rate of error" and, consequently, has never relied upon a single photograph for making a comparison based upon a physical characteristic. Dec. Tr. 63: 15-25; 64: 1-21.

10. Dr. Monge applied a methodology in which, using four of the surveillance photos and the prison photos of Mr. McClintock, she completed a series of worksheets and compared the characteristics of the ear of both the bank robber and Mr. McClintock. Dec. Tr. at 73: 5-25; 74: 1-25; 75: 1-19. In addition to conducting a visual comparison, Dr. Monge conducted metric measurement comparisons of discrete characteristics of the various components of the ear. Id.

11. The study of unique ear characteristics, or ear biometrics, and its application as a vehicle for identification of an individual has been documented by others in the scientific community. See, e.g., Hanna-Kaisa Lammi, Ear Biometrics, available at www.it.lut.fi/kurssit/03-04/010970000/seminars/Lammi.pdf; M. Burge and W. Burger, Ear Biometrics for Machine Vision, available at

www.computing.armstrong.edu/FacNStaff/burge/pdf/oagm-97-us.pdf. This documentation suggests that there are three methods for ear identification: (1) taking a photo of an ear; (2) taking “earmarks” by pushing an ear against a flat glass; and (3) taking thermogram pictures of the ear. Lammi, Ear Biometrics at 4.

CONCLUSIONS OF LAW

1. A criminal defendant has a right, under both the Due Process Clause of the Fifth Amendment and the Compulsory Process Clause of the Sixth Amendment,⁴ to call witnesses on his or her own behalf. California v. Trombetta, 467 U.S. 479, 486 n.6 (1984). The right of an accused to present witnesses in his or her own defense is an essential attribute to the adversary system of justice in this country. Gov’t of the Virgin Islands v. Mills, 956 F.2d 443, 445 (3d Cir. 1992) (citing Taylor v. Illinois, 484 U.S. 400, 408 (1988)).

2. A criminal defendant does not, however, have an “unfettered right to offer testimony that is incompetent, privileged or otherwise inadmissible” under the standard rules of evidence. Taylor v. Illinois, 484 U.S. at 409. Thus, the proposed presentation of an expert witness on behalf of the defendant must comport with the Federal Rules of Evidence.

3. Federal Rule of Evidence 702, which governs the admissibility of expert testimony, provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon

⁴ The Sixth Amendment directly provides the accused the right “to have compulsory process for obtaining witnesses in his favor.” U.S. CONST. amend. VI. Likewise, the Supreme Court has stated that the right of an accused to call witnesses on his or her own behalf is “essential to due process.” Chambers v. Mississippi, 410 U.S. 284, 294 (1973).

sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

FED. R. EVID. 702.

4. In Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), the Supreme Court imposed upon district courts the role of a gatekeeper to “ensure that any and all scientific evidence is not only relevant, but reliable.” ID Sec. Sys. Canada, Inc. v. Checkpoint Sys., Inc., 198 F. Supp. 2d 598, 601-02 (E.D. Pa. 2002) (quoting Daubert, 509 U.S. at 589); see also Schneider v. Fried, 320 F.3d 396, 404 (3d Cir. 2003).

5. When “faced with a proffer of expert scientific testimony . . . the trial judge must determine at the outset, pursuant to Rule 104(a), whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand and determine a fact in issue.” Id. at 602 (quoting Daubert, 509 U.S. at 592). This gatekeeping function of the district court extends beyond scientific testimony to “testimony based on . . . ‘technical’ and ‘other specialized’ knowledge.” Id. (quoting Kumho Tire Co. v. Carmichael, 526 U.S. 137, 141, 119 S. Ct. 1167, 143 L. Ed. 2d 238 (1999)). The gatekeeping function helps to assure that an expert who bases his testimony upon professional studies or personal experience uses the same level of intellectual rigor in the courtroom that would typify the practice of an expert in the relevant field.

6. Federal Rule of Evidence 702 provides “three distinct substantive restrictions on the admission of expert testimony: qualifications, reliability and fit.” Elcock v. Kmart Corp., 233 F.3d 734, 741 (3d Cir. 2000). The party offering the expert testimony has the burden of establishing that the proffered testimony meets each of the three requirements by a

preponderance of the evidence. ID Sec. Sys. Can., Inc., 198 F. Supp. 2d at 602 (citing Padillas v. Stork-Gamco, Inc., 186 F.3d 412, 418 (3d Cir. 1999)).

Qualifications

7. The first requirement, whether the witness is qualified as an expert, requires a witness to have “specialized knowledge” about the area of testimony. Elcock v. Kmart Corp., 233 F.3d at 741. The basis of such knowledge may include “practical experience as well as academic training and credentials.” Id. This requirement has been interpreted liberally to encompass “a broad range of knowledge, skills, and training.” Id. (quoting Waldorf v. Shuta, 142 F.3d 601 (3d Cir. 1998)).

8. After consideration of the evidence presented, the Court concludes that Dr. Monge is qualified as an expert who is capable of conducting photographic comparisons of ear morphology. Dr. Monge has taken a number of courses in photography and comparative photography, including as used in connection with analysis of human physical characteristics, in order to obtain her doctoral degree, and has developed and examined photographs of other individuals who are charged with crimes. See, e.g., Dec. Tr. at 56:8-12; 56:17-25; 57:1-24. Therefore, the Court concludes that Dr. Monge is qualified to conduct the analysis presented.

Reliability

9. The second prong of the analysis requires a court to conclude that an expert’s testimony is reliable. Id. When the expert testifies to “scientific knowledge,” his opinion “must be based on the ‘methods and procedures of science’ rather than on ‘subjective belief or unsupported speculation’; the expert must have ‘good grounds’ for his or her belief.” In re Paoli Railroad Yard Litigation, 35 F.3d 717, 743 (3d Cir. 1994). In considering whether there are

“good grounds” for the expert’s opinions, district courts examine a series of factors:

(1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique’s operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

In re Paoli, 35 F.3d at 742 n.8.

10. This list of factors “is non-exclusive and . . . each factor need not be applied in every case.” Elcock, 233 F.3d at 746.⁵ The Supreme Court has noted that a district court has “considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable.” Id. (citing Kumho Tire, 526 U.S. 137 (1999)). That is to say, a trial court should consider the specific factors identified in Daubert where they are reasonable measures of the reliability of expert testimony. Kumho Tire, 526 U.S. at 152.

11. Based on the evidence presented, the Court concludes that the methods applied by Dr. Monge in drawing her conclusions are reliable under the Daubert/Kumho Tire analysis.

12. First, as Dr. Monge testified, her own analyses were based upon a methodology well beyond mere naked-eye visual observation and were subject to the review of other physical anthropologists who are professionally familiar with the tasks of comparing anatomical features by photograph. This, in combination with the fact that others have published articles with respect to utilizing unique ear characteristics for identification purposes, sufficiently establishes that the methods applied by Dr. Monge have been reviewed by appropriate peers.

⁵ It must be noted, however, that to the extent the Daubert factors are “reasonable measures of the reliability” of an expert’s testimony, they should be considered by the district court. Elcock, 233 F.3d at 746.

13. Although the Government is understandably concerned that the quality of the surveillance photographs would make the determination of an error rate for Dr. Monge's processes impossible, the evidence established that Dr. Monge took the quality of the photographs into account in conducting her analysis. For example, Dr. Monge acknowledged that because the conditions of the comparative photographs could not be precisely duplicated, the error rate in conducting such a comparison would be higher than average. Dec. Tr. at 63:19-23. In fact, Dr. Monge testified that this higher rate of error is the reason that out of approximately 40 other surveillance photo cases in which she initiated an analysis, she was unable to draw any definitive conclusion. Dec. Tr. at 64:1-21. In the present case, however, Dr. Monge testified that she felt able to draw a definitive conclusion because the attached earlobe feature repeated in the surveillance photographs, a happening that is a rarity in comparison to the other cases she has seen. Dec. Tr. at 64:12-17. Finally, in consideration of the relatively poor quality of the surveillance photographs, Dr. Monge modified her methodology to use only "very clear gross anatomical features" in conducting her comparative measurements. Supplemental Report of Janet M. Monge, Explanation of Photograph 7. Although the quality of the photographs and Dr. Monge's adjustments may surely present an issue for the Government to attempt to exploit, among others, with respect to the weight of this evidence, the adjustments themselves support a finding of reliability. Thus, the Court concludes that the potential rate of error was acknowledged, and Dr. Monge's report and conclusions adjusted for a heightened rate of error.

14. The methodology applied by Dr. Monge included not only the examination of an enlarged photograph, but also measurements of certain physical features of the ears of the bank robber and Mr. McClintock. This methodology has been studied and discussed by others and

appears to be an acceptable method for analyzing ear characteristics for the purposes of assessing identification. See, e.g., Lammi, Ear Biometrics at 5. Dr. Monge's supplemental report reflects that she examined, measured and compared the ear characteristics of the bank robber with those of Mr. McClintock in the same manner suggested by other scientists. See Supplemental Report of Janet M Monge at Explanation of Photographs 8, 9.

15. As discussed above, Dr. Monge is qualified to discuss the characteristics and components of the ear. Dr. Monge has not only studied these features in the course of her doctoral work, but she has also conducted similar analyses nearly 40 other cases. Although she has not testified in each of these cases, that is reportedly because of her discernment that the error rate was unacceptably high and not because her expertise in morphological comparison of the ear was lacking. Dec. Tr. at 64:18-21. The record also shows that Dr. Monge has had a notable amount of experience with criminal identification cases. Dec. Tr. at 57:15-24.

16. Finally, there are non-judicial uses to which this type of analysis can be applied. Dr. Monge testified that these types of analyses are used in academia to assess pattern variations among humans in an attempt to understand why such pattern variations exist. Dec. Tr. at 20:18-21.

17. Although the Government has not directly attacked Dr. Monge's work as being too "new" to be allowed in this case, the Government's disdain for her approach is unmistakable, this prompting reference to John Locke's observation that "[n]ew opinions are always suspected, and usually opposed, without any other reason but because they are not already common." Locke, Essay Concerning Human Understanding (1690). In any event, on this record the Court concludes that Dr. Monge's methodology is sufficiently established and reliable.

Fit

18. The final prong of Daubert/Kumho Tire requires that the expert testimony “fit” by assisting the trier of fact. Oddi v. Ford Motor Co., 234 F.3d 136, 145 (3d Cir. 2000).

“Admissibility thus depends in part upon ‘the proffered connection between the scientific research or test result to be presented and particular disputed factual issues in the case.’” In re Paoli, 35 F.3d at 743. Without interfering with the jury’s role as the trier of fact, judges must determine whether the proposed expert evidence will, in addition to being reliable, assist the trier of fact, thereby keeping from the jury testimony that, in the sense observed by physicist Wolfgang Pauli as reported in Peter Huber’s Galileo’s Revenge: Junk Science in the Courtroom at 54 (1991), is not even good enough to be wrong. See Kumho Tire at 1176.

19. The “fit” standard does not require a plaintiff to prove “their case twice.” Oddi, 234 F.3d at 145. Plaintiffs need not “demonstrate to the judge by a preponderance of evidence that the assessments of their experts are correct, they only have to demonstrate by a preponderance of evidence that they are reliable.” In re Paoli, 35 F.3d at 744. Thus, the test does not require that an expert’s opinion have “the best foundation” or be “demonstrably correct,” but only that the “particular opinion is based on valid reasoning and reliable methodology.” Oddi, 234 F.2d at 146. In assessing “fit,” a court must “examine the expert’s conclusions in order to determine whether they could reliably flow from the facts known to the expert and the methodology used.” Id.

20. The Court concludes that the methodology applied to the photographs by Dr. Monge will serve to assist the jury in interpreting some of the evidence with which they are presented. As agreed by counsel for the Government and Mr. McClintock, the jury’s

determination in this case will depend significantly upon identification evidence, and the jury will be shown surveillance photographs, as well as testimony by witnesses who identified Mr. McClintock from those photographs, from which the jurors will have to discern whether they believe the robber was or was not Mr. McClintock. Indeed, in the absence of Dr. Monge's calling attention to a specific characteristic in the surveillance photographs, the jurors may well be at risk of not looking at the photographs as carefully or critically as one would hope they would in order to evaluate much of the expected documentary and testimonial evidence in this case. The fact that the result of Dr. Monge's examination of the photographs is at odds with the results of other witnesses' evaluations of the same photographs is certainly no reason to keep Dr. Monge from testifying at trial. The jury members will, of course, be instructed that they may accept or reject some, all or none of her opinions. As such, there is a definite connection between the result of Dr. Monge's proposed testimony and the disputed identification evidence.

21. The methodology applied by Dr. Monge is based on the comparison of photographs and measurement of certain characteristics of the ear and its component parts. The quality of the surveillance photographs, which by all estimations certainly is not perfect, was accounted for in the analysis and, to some degree, compensated by enlargement and magnification. Dec. Tr. at 28:4-9. Dr. Monge then applied her training and experience in examining and comparing ear characteristics and drew the conclusion that the attached earlobe repeated itself in several of the photographs such that she could reasonably conclude that the bank robber had attached earlobes. Considering the evidence presented, the Court concludes that the conclusions drawn by Dr. Monge could reasonably flow from the facts known to Dr. Monge.

22. Dr. Monge's analysis will serve to assist the jury in assessing the evidence

with which it will be presented. In addition to Dr. Monge's testimony, the jurors will be presented with identification evidence of friends and family members of Mr. McClintock. The genesis of that expected identification evidence is the surveillance photographs from the bank that were published in the newspaper. Thus, this jury will be asked to closely evaluate the surveillance photos. Dr. Monge's testimony can assist them in doing so. She will not be usurping the jury's function but merely aiding the jury's performance of its responsibility.

23. Furthermore, because there is a lack of direct physical evidence linking Mr. McClintock to the robbery, the surveillance photographs are a significant component of this case. Accordingly, Dr. Monge's testimony may assist the jury by providing them with some degree of perspective to apply when viewing the photographs and making a decision for themselves. That is, Dr. Monge's testimony will not direct the jurors as to what conclusion they must draw, but will be presented to assist the jury in performing the task with which they are charged.

CONCLUSION

For the reasons discussed above, the testimony of Dr. Monge will be admitted.
An appropriate Order consistent with these Findings and Conclusions follows.

/S/
Gene E.K. Pratter
United States District Judge

January 5, 2006

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

UNITED STATES	:	CRIMINAL ACTION
	:	
vs.	:	
	:	
JAMES McCLINTOCK	:	
	:	No. 05-441

ORDER

AND NOW, this 5th day of January, 2006, upon consideration of the Motion in Limine to Exclude Defendant's Forensic Anthropologist Expert Testimony (Docket No. 66) filed by the Government, the Motion to Admit Expert Testimony (Docket No. 71) filed by Mr. McClintock, and the Supplemental Motion to Admit Expert Testimony (Docket No. 75) filed by Mr. McClintock, it is **ORDERED** that the Motion to Exclude Defendant's Forensic Anthropologist Expert Testimony is **DENIED** and the Motions to Admit Expert Testimony are **GRANTED**. It is **FURTHER ORDERED** that in proffering her testimony, Dr. Monge shall present to the Court and jurors the same photographs, magnified and/or enlarged in the same manner as set forth in her analysis and shall make available to the Government, upon its reasonable request, such hardware and software as used by Dr. Monge to undertake her analysis and prepare her report.

BY THE COURT:

/S/ _____
GENE E.K. PRATTER
United States District Judge