

BOOK REVIEW

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A Review of *Strategic Use of Scientific Evidence*

REFERENCE: Tarantino, J. A., *Strategic Use of Scientific Evidence*, Kluwer Law Book Publishers, New York, NY, 1988. 628 pp.

This is a bad book, a book which I nevertheless review with much hesitancy and considerable trepidation. In this hesitance, there is only a seeming paradox. Reviewing a bad book can be akin to picketing an objectionable movie. It can give currency, notoriety, and a false prominence to a book that should, by all rights, be consigned to the abyss.

On the other hand, to one with a Mencken-like disposition, reviewing a bad book is like planting a bed of petunias with a backhoe. It creates the superficial appearance of doing a needed task, under the guise of a much more destructive goal. I am not, I hasten to add, of the Mencken stripe.

The author, a practicing lawyer with an established track record as the author of a number of texts on the practical aspects of lawyering, has set out to fill what he calls a "void" existing in the available texts on the legal uses of scientific evidence. He has discerned a gap in the treatment of the subject from the point of view of practicing attorneys, like himself. He has, consequently, assembled a 14-chapter text on scientific evidence, which includes "explanatory material, sample forms, checklists and an extensive bibliography," intended to do what academicians and scientists have not done, and possibly cannot do, in his estimation, for the practicing lawyer in their texts on the subject.

The sample forms and the checklists in the book are a novel addition to the literature and certainly do distinguish this one volume on the forensic sciences from its two predecessors in the field.^{2,3} Whether, however, the value of those forms and checklists is of such surpassing importance as to eclipse the errors, sometimes monstrous in nature, in this text—in which this vast subject is covered by only one author—remains for his audience of practitioners to judge for themselves.

Will his readership among attorneys be bold enough to rely on any part of a book that regularly miscites and mischaracterizes the legal opinions it tenders as support for its premises, even to the point of misdescribing leading opinions of the United States Supreme Court? On page 75, for example, in the throes of his discussion of the evidentiary significance of fingerprint evidence, he refers to *Jackson v. Virginia*⁴ for the proposition that "with respect to fingerprint evidence, every reasonable hypothesis other than the

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²Moenssens, A. A., Inbau, F. E., and Starrs, J. E., *Scientific Evidence in Criminal Cases*, 3rd ed., Foundation Press, Mineola, NY, 1986.

³Gianelli, P. C. and Imwinkelried, E. J., *Scientific Evidence*, The Michie Co., Charlottesville, VA, 1986.

⁴443 U.S. 307 (1979).

assumption that the defendant is the person who impressed his fingers at the crime scene must be satisfied before the prosecution has met its burden of going forward.”

But, *au contraire* and *sacre bleu* (Anglo-Saxon phraseology would be unprintable), the *Jackson* case not only says nothing of the sort, not even remotely of the sort, but has not one whit to say about fingerprint or even scientific evidence of any kind, type, or character. And the author’s misreporting of *Jackson* is reaffirmed, apparently to assure us that it was not just a momentary lapse, in a succeeding footnote, also on page 75.

On page 344, in the analysis of the legal standing of the trace metal detection technique (TMDT), the author leans exclusively on the New York trial court opinion in *People v. Lauro*, which rejected the proffered TMDT evidence, in support of his claim that “there is a split in the courts on the admissibility of T.M.D.T. evidence.” But the *Lauro* opinion is entitled to little or no weight, for it concerned an accused who, as a jeweler, might well be expected to have had traces of metallic particles on his hands. Further, the *Lauro* case has been expressly limited to its facts in a subsequent trial court opinion, also from Westchester County, New York, but not cited by the author, in *People v. Borcsok*.⁵ In addition, what good can be said of a case, such as *Lauro*, which describes the trace metal detection technique as “related somewhat to fingerprint analysis.” TMDT is as much related to fingerprint evaluation as a swamp fox is related to a canary.

Other scientific methods and disciplines have received a similar halfhearted or negative response from the author, although the case law cited by him simply does not bear out his pessimistic evaluation. Forensic anthropology is one of the disciplines damned with faint praise.

On page 375, we are informed that “[i]t is still a relatively open question whether forensic anthropological techniques satisfy the *Frye* test.” Yet, no cases are mentioned in which the courts have shown even the slightest reluctance in accepting the testimony of anthropologists. Indeed, the only references offered are to reported decisions where anthropologists were accepted without a successful challenge.⁶

In one of these cases, supporting the most exotic and extreme uses of anthropology in the courtroom,⁷ the author tells us that “an anthropologist was allowed to render an opinion estimating the decedent’s age, stature and appearance.” But that statement is a bit of creative and false authorship. In the case referred to, there was no decedent and there was no estimation of age, stature, or appearance of anyone, decedent or otherwise.

The Third Federal Circuit’s opinion in *United States v. Ferri* refers to the testimony of the late and controversial Dr. Louise Robbins, who testified, in this explosive criminal trial, that her analysis of Ferri’s feet and the inner surfaces of a number of shoes enabled her to connect Ferri with the crime scene shoes.

The author further obscures the true holding in the *Ferri* case by placing it prominently in a paragraph devoted to the “relatively open question whether forensic anthropological techniques satisfy the *Frye* test.” But the *Ferri* court, adhering firmly to its earlier holding in *United States v. Downing*,⁸ explicitly and unequivocally rejected the authority of *Frye* in the Third Circuit. In *Ferri*, then, the anthropologist did not say what the author attributes to her testimony nor does the court even remotely ask anthropologists to measure their conclusions according to the *Frye* test.

The author’s unjustified refusal to acknowledge the merits of well-accepted scientific methods or disciplines runs rampant throughout the text. At page 342, he states that the acceptance of the scanning electron microscope “by future courts” is said to be “debatable at this time.” X-ray fluorescence⁹ is treated with the author’s same skepticism, but anodic

⁵452 N.Y.S. 2d. 814 (1982) (Blood Typing for Enzyme Analysis).

⁶See Footnotes 54 to 56.

⁷*United States v. Ferri*, 778 F., 2d. 985 (3d. Cir. 1985), Footnote 55.

⁸753 F. 2d 1234 (3rd. Cir. 1985).

⁹Page 343.

stripping voltametry is given a rather acquiescent nod. The author does not seem to know where to strike or which iron is hot for striking.

In the chapter titled Forensic Pathology, the author discusses the ever-present need to determine the distance from which a gunshot wound was inflicted. Test firing a “suspect gun” by a pathologist is said to be a surefire method by which “the muzzle to target distance can be determined.”¹⁰ The test firing, take careful note, is confidently said to enable the pathologist *to determine*, not to give an estimate of the range of fire, but *to determine* the range—with exactitude? That all-too-assured conclusion necessarily guides the eye to his footnote authorities.

On page 387, two cases are cited to buttress the author’s thesis regarding test firing to determine firing distance.¹¹ Neither case gives the barest, the slightest, not even the merest strength to his conclusion. In the first decision cited, *People v. Reyes*, a pathologist, one Dr. Ikram, was allowed to testify that a gunshot wound was not a contact wound and was inflicted from a distance of more than three feet. No test firing was said to have been involved by the pathologist, who made his determinations from the character of the wound alone.

In the second case cited as an authority, *People v. Bonilla*, nothing of any kind, shape, or form was addressed to the subject of firing distance determinations. The sole and exclusive issue was whether the medical team who removed a crime victim’s kidneys and spleen was the immediate cause of the victim’s death rather than the accused, whose conduct rendered the life support mechanisms necessary to keep the victim alive.

With the manifold errors in the legal authorities cited by the author, this book would be bad enough, but its allusions to scientific matters make it ripe for the bonfire.

According to the old spiritual the “ankle bone is connected to the leg bone.” By analogy, fingernails are connected to the phalanges of the fingers. But, in forensic science, fingernail identifications are not related in the slightest way to fingerprints, palm prints, or footprints. Yet, the author would have us believe otherwise.

At page 74, the reader is informed that a “variety of techniques,” in addition to fingerprints, have been judicially accepted. Among these are said to be “palm prints and footprints, as well as fingernail identification evidence.” But fingernails are matched, as a general rule, by the striations existing on the posterior portion of them, whereas it is the friction ridges of fingerprints, palm prints, and footprints that occasion an identification. Fingernail comparisons are more like toolmarks than like fingerprints.

But, might it be said that a criticism of this misalignment of subjects is just so much professional pettifoggery? Not so. The author just does not know his scientific fields or the subjects within them. Witness his presentation on the topic of forensic radiology on page 376.

It is said, quite correctly, that antemortem X-rays can be a basis of comparison with postmortem X-rays to identify an unknown decedent. The method of accomplishing this X-ray comparison is said to require that “antemortem samples be *superimposed* [the italics are mine] on the postmortem X-rays.” Such a superimposition or overlay method is a ludicrous suggestion, since the body position of the person X-rayed, as well as the angle and distance of X-raying, will differ from person to person and from situation to situation. Indeed the authority cites, in Footnote 64, the opinion in *Commonwealth v. Devlin* as support for the acceptability of forensic radiology. And, yet, the author seems not to be aware that the radiologist, Dr. Sosman, who testified to the X-ray matching in *Devlin* did so as he said “by visual comparison.” The *Devlin* case itself makes direct reference to this “visual comparison,” not to any superimposition.

On page 441, we are informed that a questioned document examiner must meet certain

¹⁰Page 387.

¹¹Footnote 123.

“threshold criteria to qualify” as an expert witness. In support, *United States v. King* is cited, where a witness whose only qualifications were “self-study and a correspondence course” was deemed unqualified as a questioned document examiner. All of this is quite accurate, except that the author misses the vital point of the *King* case. The purported expert there was a graphologist, not a document examiner in the proper meaning of that discipline. But the author does not apparently know the difference.

Further, in the same erroneous vein, the author cites, on page 442, that the “American Society of Questioned Document Examiners” is “a section of the American Academy of Forensic Sciences.” That is simply not true.

A number of the author’s statements, apparently with the aura of science as backing, are so outlandish as to be their own refutation. Under the heading Battered Child Syndrome on page 382, we are unqualifiedly informed that “children are not prone to develop soft tissue injuries at an early age unless the injuries result from the application of force by another person.” Children, we are misled into believing, will not be children. They do not fall accidentally from their bicycles or under other demonstrably accidental circumstances.

Some matters in this book can be passed over with only a token objection. It is irksome that the author chooses to lift materials bodily from a text coauthored by this reviewer,¹² and uses a citation from this text which, except for the change or addition of a definite or indefinite article, is a direct quote, although that is only suggestive of plagiarism. But, when he selectively takes materials from my text in such a way as to mislead his readership, that is an unpalatable miscreancy. Note his references to the subject of hair analysis and comparison.

On page 93, the author states that “*The* medullary index is used to identify *the* species origin from *the* medullary diameter” [the italics are mine]. Page 481 of my text is cited as the authority, where the following appears: “A medullary index is used to identify species origin from medullary diameter.” The only differences in the two texts are italicized.

Never mind that the author does not explain the meaning of the “medullary index,” as is done in my own text. What is most disenchanting about his reference to my text is that he neglects to mention that not all human hair will have a medulla, which leads him to suggest, quite fallaciously, that the width of the medulla can be used to differentiate animal from human hair, apparently in all cases.

And there is more of a similar kind, too superficial and potentially misleading, throughout this text. On page 389, exit wounds are said to have a “starlike appearance.” And on page 386, entrance wounds of a contact nature are declared to be “characterized by a starlike split in the skin.” But nothing is said about distinguishing one from the other, for those who are led to that need by the discussion.

Aside from all of the above, there are those who might pin their most severe censure on this book’s inclusions, exclusions, and coverage. Nothing is said on the entire subject of DNA analysis, but 55 pages are given over to the matter of hypnosis. Twenty-five pages are devoted to thermography, but only 19 pages are seen fit for the vital and absorbing subject of drug analysis. The twin subjects of arson and explosives are nowhere to be seen. And what is worse, no explanations are given for the coverage and the selections of what is in and out. The readership deserves better, that is, what few readers there will or should be.

¹²Moenssens, et al., op. cit.