ETHICALITY AND THE EXPERT WITNESS: REMEMBERING WHAT HANGS IN THE BALANCE

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Abstract: The motivation to write this article was born out of a keynote lecture given by the author at the University of Windsor, Ontario, Canada for the “Trends in Forensic Sciences: CSI Windsor 2014” Conference on March 21, 2014.

The thesis of the ensuing discussion, as the article’s title implies, emphasizes how absolutely essential it is for a forensic expert to embody the highest standards of honesty and integrity when called upon to testify in a court of law. First principles are re-visited and discussed in order that the reader understands the necessity of being familiar with the basic rules that are applicable to expert testimony as well as the moral codes that support the doctrinal underpinnings. In addition, the passage of time is explored against a backdrop of scientific advances to help illustrate why the scientific community must remain alive to the possibility that what is seen as a present day given, may be shown not to be so in the foreseeable future. From both a scientific and a legal perspective, at a time when wrongful convictions are being uncovered with some regularity, the various issues surrounding the giving of expert evidence are considered under a much more focused and critical lens.

Ultimately, recommendations are made to ensure that the ethicality of the expert witness remains intact, including methods to deter those whose own moral compass is simply not sufficient to stay the course. The tension that often arises between law and science is duly recognized, with compromises considered where appropriate. All comments found herein are solely those of the author made in his personal capacity.

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INTRODUCTION

The shifting sands of forensic knowledge, by necessity, require those who pursue the endeavour to continuously revisit first principles of scientific methodology and compare them to the present state of comprehension in the field in question. Indeed, returning to first principles is both a refreshing and fundamentally important journey to take in any walk of life. However, it is the position of the author that there is a universal principle that must underpin and animate all forensic understanding, lest there develop a schismatic divide between the science that is known to be and the science that some, either unwittingly or purposely, wish it to be. That universal principle is that science is worthless to humankind unless it is built on a foundation of ethicality.1

This article will focus on the jurisprudential standards that have developed in Canada and elsewhere for the introduction of expert evidence at trial. Examples from case law will be discussed to show how the passage of time exposes the foibles and limitations of all forensic pursuits. As well, the pseudo-sciences that continuously attempt to work their way into the legal landscape will be addressed. The concept of “re-integrative shaming”2 will be employed as a tool to attempt to deter those that have been interdicted by the gate-keeping function of the judiciary as well as the scientific charlatans who have yet to be detected. The tension between remaining true to one’s science and giving helpful testimony in a court of law will also be explored.3 Finally, some concluding remarks will hopefully assist present and prospective forensic

1. “At its core, the subject of ethics is a form of behavioural science – the study of how human beings behave when they decide that certain actions are “right” or “wrong”. As a form of human behaviour, the practice of creating and responding to ethical codes should be analyzed like any behavioural system. We must ask why people engage in the relevant conduct and what people do when pursuing the behaviour in question. What are the stimuli that lead to ethical systems, and what is the nature of the human mind’s response?” - from page 13 of Randal N. M. Graham, Legal Ethics (Toronto: Emond Montgomery, 2004).
2. The concept of “re-integrative shaming” and how it can be applied, even to judicial officer conduct, is discussed in Brian Manarin, “Of Tardy Judges and Timely Justice” (2011), (2&3) 57 C.L.Q. 216, at 235-239.
experts as they grapple with the ethical issues that will arise when they are called upon to cross the Rubicon from the crime scene or the laboratory, to the courtroom.

THE JURISPRUDENTIAL STANDARDS

In Canada, expert opinion evidence is presumptively inadmissible. For expert evidence to become admissible, the trial judge is first obliged to determine the nature and scope of the proposed evidence and only then, follow up with a two-stage admissibility inquiry. This two-stage inquiry has become better known as the Mohan test, named after the 1994 decision of the Supreme Court of Canada. The initial stage determines admissibility based on the application of the following criteria:

a) Relevance;
b) Necessity in assisting the trier of fact;
c) The absence of any exclusionary rule;
d) A properly qualified expert.

To be relevant, evidence must be found by the trial judge to be logically probative or helpful to prove an issue. The evidence may have a tendency to prove, or disprove, a litigious factual proposition.

Necessity in assisting the trier of fact, whether that is a judge sitting alone, or with a jury, means exactly that in essence. Is the expert testimony such that it will offer some necessary assistance? In determining the necessity issue, a judge is put in the somewhat unrealistic position of divining what is likely within or outside the scope of the life experience of ordinary people. Nevertheless, the test remains as such despite its “all-knowing” implications. The English case of R. v. Turner continues to aptly underscore the competing issues:

An expert’s opinion is admissible to furnish the court with scientific information which is likely to be outside the experience and knowledge of a judge or jury. If on the proven facts a judge or jury can form their own conclusions without help, then the opinion of an expert is unnecessary. In such a case if it is given dressed up in scientific jargon it may make judgment more difficult. The fact that an expert witness has impressive scientific qualifications does not by that fact alone make his opinion on matters of human nature and behaviour within the limits of normality any more helpful than that of the jurors themselves; but there is a danger that they may think it does.10

An example of the judicial presumption of jury knowledge conflicting with a body of expert knowledge is well illustrated in the case of R. v. Sikorski11 where application was made for the introduction of expert testimony on the subjects of memory recall, the reliability of memory recall and the role that suggestibility may play in memory recall. In dismissing the proposed defence evidence, Nordheimer, J. held that:

The issue of memory, in this context, is not outside the experience of a judge or jury. As individuals we are confronted with the failures of memories, both our own and others, on a constant basis. From an early age, we become familiar with failed memories, inaccurate memories and unreliable memories. An expert is not required to explain the realities of those conditions or the causation that anyone should adopt when deciding whether to accept events recounted by a witness especially many years after those events occurred.12

Implicit in the above-mentioned comments of Nordheimer, J. is the suggestion that appreciating the frailties of eyewitness testimony requires nothing more than some life experience which all able-minded adults would presumably possess. While that may generally be true, it is the more nuanced appreciation of the workings of the human memory that will likely escape the layperson, or so the memory experts argue. Is a sequentially presented photographic line-up superior to simply showing an array of photographs? If so, why? Does eyewitness confidence translate into eyewitness accuracy? What are the most appropriate instructions to give an eyewitness before he, or she, participates in a line-up procedure? Those in the “common sense” camp have been described

12. Ibid., at para. 17.
as being "...generally unaware of the knowledge in the area." Suffice it to say that what is "necessary" to assist a judge or jury, given that a defendant's guilt or innocence may hang in the balance, precisely on the issue of presumed knowledge, deserves continuous close scrutiny by all justice stakeholders.

The absence of any exclusionary rule is an issue that requires the court to consider whether a rule of evidence may prohibit the introduction of the proposed expert testimony. As such, the possibilities under this criterion are potentially limitless. Issues as divergent as conflict of interest, the rule prohibiting the introduction of pure propensity evidence, or even solicitor and client privilege may, in some circumstances, prohibit the testimony of an expert, or a portion thereof.

A properly qualified expert witness is one "who is shown to have acquired special or peculiar knowledge through study or experience in respect of the matters on which he or she undertakes to testify." Academic qualifications, field experience, publications, presentations, memberships and previous juridical declarations of expertise, are but a few of the considerations that a court will typically contemplate under the qualifications rubric. Once qualified the weight afforded to the expert's testimony is part of the province of the trier of fact. Even a less authoritative figure may, by virtue of his, or her, ability to communicate concepts, be a highly effective witness in the eyes of a judge or jury.

The second stage of the Mohan test requires the trial judge to determine whether the proposed evidence, as a necessary adjunct to relevancy considerations, is worth the time, effort and explanatory requirements that will precipitate its introduction. This secondary gatekeeping obligation vests the court with the following extra responsibilities:

13. Supra. note 9, at 206 (being part of chapter 9, contributed by Rod Lindsay). See also, generally, Kenneth A. Deffenbacher and Elizabeth F. Loftus, "Do Juries Share a Common Understanding Concerning Eyewitness Behaviour?" (1982), 6 Law and Human Behaviour 15.
17. Supra, note 7, at para. 27.
... weighing the costs and benefits of the proposed expert evidence to determine whether it is sufficiently beneficial to be admitted even if it meets the first stage of the admissibility inquiry. For the purpose of this second stage, benefits include the probative value of the evidence and the significance of the issue to which it is directed, whereas costs include consumption of time, prejudice and confusion. The product of this cost-benefit analysis is entitled to deference on appeal.\(^\text{20}\) (citations omitted)

Finally, even where both stages of the Mohan test have been satisfied and the expert is granted permission to testify, the court must remain vigilant to ensure that the expert stays within the area or areas of his, or her, qualified expertise. It is unfortunately a commonplace in certain trials, typically where parties consent to the introduction of evidence without the necessity of convening admissibility voir dires, that experts may stray far afield from his, or her, area of expertise. As explained by Moldaver, J., of the Supreme Court of Canada, “A properly qualified expert could stray into expressing inadmissible opinions about the guilt of an accused, and the trial judge must ensure that the expert’s testimony stays within the proper boundaries of such evidence and maintain the integrity and independence of his or her own fact-finding function as regards the credibility of witnesses and the guilt or innocence of the accused.”\(^\text{21}\) Thus, it is apposite to underscore that a forensic scientist is both morally and legally obligated to speak only about areas of qualified expertise, where the territory is presumably familiar and the trail is likely well-worn.\(^\text{22}\)

**THE SIGNIFICANCE OF THE OATH**

In Canada, whether a witness swears an oath to his, or her, chosen deity with an obligatory hand placed on a holy book, or simply makes a solemn affirmation,\(^\text{23}\) the same testimonial expectations come to the fore, that is that the evidence to be given will be “the truth, the whole truth and nothing but the truth.”\(^\text{24}\) It is submitted that it was by design and not by accident or prosaic flight of fancy that three distinct and equally important promises make up

20. Ibid. note 4.
22. Forensic Science, 3d ed. (Boca Raton: Taylor and Francis, 2009), at 674 (being part of chapter 34, contributed by Jon J. Nordby).
23. See the Canada Evidence Act, R.S.C. 1985, Chap. C-5, at s.14 (2).
24. Ibid. at s.14 (1).
an oath or affirmation. Although Pontius Pilate in the Gospel of St. John\textsuperscript{25} famously decried the general issue of truth-speaking, when he uttered the words “What is truth?”, the goal remains simplistic in nature. What is difficult for some witnesses, experts included, is charting the testimonial voyage to the land of honesty. Assuming, for the moment, that truth is a fairly straightforward concept, the admonishment “nothing but the truth” must be equally so, because it simply warns the witness to guard against weaving the occasional falsehood into the overall fabric of the truth. However, it is in the middle portion of the oath or affirmation where potential danger lurks. Failing to “tell the whole truth” has the potential to cause justice to miscarry and land the expert witness in hot water. This can happen when the expert strays from the path of neutrality and becomes partisan to a particular outcome at trial. Whole truth answering ensures a fulsome understanding of the area of questioning and squarely brings the reputation of the expert and his, or her, area of expertise into focus: The whole truth thus is not a Newtonian truth, objective and discernible to all parties, but is perhaps closer to relative truth or probabilistic truth, assuming a margin of uncertainty. Testimony that conveys the whole truth is inevitably sensitive to external biases and pressures, such as excluded information and distortions of testimony by one’s own or the opposing attorney. Expert witnesses are also proponents, not for one side or the other of the case, but for their own opinion, and that opinion should be based on an honest analysis of all the relevant facts.\textsuperscript{26} (citations omitted)

So, prima facie, there is nothing wrong with an expert witness remaining invested in the opinion he, or she, has generated, as long as its qualifications and limitations are offered up in the mix. Indeed, the expert should be well aware that the opinion of any human being, striving for objectivity, will still be less than objective, as absolute neutrality is likely beyond the scope of human ability. As one jurist said about behavioural scientists: “Every doctor has an emotional bias; he has an operational identification with an opinion which is used to support one side of the conflict: he has an inevitable identification with

the accuracy of his own findings.”27 Nevertheless, as soon as the expert changes from out-of-court advisor to that of in-court witness, providing specialized testimony under oath or affirmation, he, or she, must leave all allegiances aside. At that moment, the expert witness assumes an overriding duty to assist the court which, by definition, embraces a detached independence from whence he, or she, came.28

Wordsmithing is best left to the great writers and orators of our time. When it comes to the testimony of expert witnesses, giving comprehensible and complete answers is much more important than achieving verbal splendor. Verbosity is particularly unhelpful as salient points tend to be lost in the mix. If a question touches on one area directly and another indirectly, that expert witness should feel obliged to address both areas when providing an answer. There really should not be any “eureka”29 moment when a plodding questioner trips over an answer that was hiding just beneath the surface of an expert’s initial general answer.

To illustrate the point, one need only consider the circumstances in which former Canadian Prime Minister Brian Mulroney found himself, as a witness at the Commission of Inquiry into Certain Allegations Respecting Business and Financial Dealings between Karlheinz Schreiber and the Right Honourable Brian Mulroney.30 The essential background facts, which became part of the Inquiry record, established that in 1995 Mr. Mulroney, no longer in public office, was the subject of an investigation, along with others, involving the payment of improper commissions relating to government contracts for the purchase of aircraft. Mr. Mulroney, who was never charged with a criminal offence stemming from the investigation, sued the Canadian government for

29. Meaning “I have found it” in the Greek language. This comment was “the reputed exclamation of Archimedes on his discovery of a method of determining (by specific gravity) the amount of base metal in King Hiero’s crown, hence an exulting exclamation at any discovery.” - H. G. Emery and K. G. Brewster, eds., The New Century Dictionary, Volume 1 (London: D. Appleton-Century, 1942), at 521.
30. Better known as the "Oliphant Inquiry" named after the Commissioner, Justice Jeffrey J. Oliphant. The Inquiry began by Order in Council dated June 12, 2008 and was completed on May 31, 2010, when the Commissioner submitted his report to the Governor General in Council.
defaming his character and reputation. During that lawsuit, Mr. Mulroney was questioned about his relationship with Karlheinz Schriever, a German-Canadian businessman. Suffice it to say that Mr. Mulroney significantly downplayed the relationship. Ultimately the defamation lawsuit was settled with the Canadian government publicly apologizing to the former Prime Minister and also paying for his legal fees.

In 2008, after the police investigation had finished, it came out in the Commission of Inquiry that the relationship between Mr. Mulroney and Mr. Schriever was actually one of significance, during which Mr. Mulroney, on his own admission, had received envelopes of cash from Mr. Schriever totaling some $225,000.00. Curiously, Mr. Mulroney had never mentioned the money during his original defamation lawsuit testimony. When asked during the Commission of Inquiry why he had not mentioned the fact that money had changed hands, the former Prime Minister responded that the government lawyer defending the defamation suit had not “asked him the right question” at the time. Commissioner Oliphant, the Associate Chief Justice of the Manitoba Court of Queen’s Bench at the time, found the answer to be “patently absurd.” Strong language for a judge to use about a former Prime Minister. As Jeffrey Simpson of Canada’s Globe and Mail newspaper wrote, “Oliphant applied the smell test - and Mulroney failed.”

In not disclosing what was clearly called for in his answer, Mr. Mulroney failed to reveal the true state of affairs in question. Regrettably, all societies have grown accustomed to the prevarications of politicians. However, the rule of law cannot allow expert witnesses to regularly go down the same road. Too much hangs in the balance. Failing to tell the whole truth is anathema to justice.

But what if the expert desperately wants to tell the whole truth, but feels pinned down by the lawyer’s questions such that he, or she, cannot fully articulate a

31. Ibid, Volume 1, Executive Summary, at 35 - 36.
32. Ibid. at 36.
34. For an equally outrageous example of the testimonial gymnastics of a politician, this time with salacious overtones, recall the Senate impeachment trial of former U.S. President Bill Clinton due to the laying of perjury and obstruction of justice charges. The parsing of words by President Clinton, including his dubious understanding of the term “sexual relations” is well documented: see generally Phil Kutz, The Star Report, The Evidence (New York: Simon and Schuster, 1998).
desired answer? The author has always found this concern to be nothing more than a rather weak and pathetic excuse for not setting the record straight. This is not the time for the expert to assume a neutral posture; this is the time for the expert to advocate against a potential miscarriage of justice.35 Playing the game purely according to the lawyer's rules is never a wise or responsible way to approach the expert witness role. The expert should, as a condition precedent to being retained, make it very clear to the engaging counsel that their own opinions will not be suppressed for any reason.36 Certainly pro-action and taking firm stands while testifying have been recommended in the past for expert witnesses:

It may be that instead of accepting the law's demand that experts fit into its framework, experts could become better at playing the legal game in order to promote their viewpoint and possibly play the lawyers at their own game. Given the fact that, despite complaint, the adversarial system is not going to be altered, perhaps this is the way of the future.

It is perhaps time that experts broke out of the law's harness. The best way to do that might be not to rely on the lawyer but to look out for oneself. Without that proviso it is to easy for the expert to end up as the "fall guy" for the lawyer and the legal system.37

Despite the foregoing, it should be made clear that the author is not recommending an anarchistic revolt against the basic rules of procedure and evidence that govern expert testimony. Rather, the author is underscoring the importance of establishing a workable and thus ethical, retainer agreement, where the suppression of important evidence will not be countenanced. For instance, what expert worth his, or her, stripes would not want to pursue all relevant information before rendering an opinion? What responsible expert would not want to know whether previously retained experts had already rendered opinions to the engaging lawyer about the case in question? Accepting a willfully blind relationship is a recipe for disaster and will soon result in a

35. The statement, "The hottest places in hell are reserved for those who, in times of great moral crisis, maintain their neutrality" has been variously attributed to Italian poet Dante Alighieri, American President John F. Kennedy, and anyone desirous of indicting those who are prone to bouts of ethical inertia.
“hired gun” label being visited on the expert who is comfortable providing opinions that are insulated from a full record of available information.

The concept of litigation privilege was developed because “…when it comes time for a lawyer to prepare for litigation, there is information that the lawyer creates or collects to prepare for the adversarial trial process to which, although not protected by solicitor-client privilege because it does not contain client confidences, it would seem unfair to allow the opposing party access.” As such, information collected from an expert witness will fall under the umbrella of this privilege. Two conditions precedent must be in place for the privilege to be upheld: "1) That litigation was ongoing or was reasonably contemplated at the time the document was created; and, 2) That the dominant purpose of creating the document was to prepare for that litigation." As such, unless the expert witness entered into a retainer agreement which specifically stipulated that litigation privilege, also known as work product privilege, did not apply (a highly unlikely occurrence), the expert witness would be bound not to disclose his, or her, report, advice or any other information produced in contemplation of the litigation. However, once an expert’s opinion is put into evidence at a trial, privilege is deemed to be waived insofar as the foundational information that made the opinion is concerned. This window of limited disclosure affords opposing counsel a fair opportunity to assess how the expert came to his, or her, opinions, whether the opinions changed over time and what sources were accessed during the process. As explained by Binnie, J. in R. v. Stone, although in dissent but not on this particular issue “…once a witness takes the stand, he/she can no longer be characterized as offering private advice to a party” due to the fact that they are now “…offering an opinion for the assistance of the court.” Presumably, what constituted the foundational information that underpinned the expert’s opinion, as reflected in the obligatory report or

39. Ibid. at 13-71.
summary that must be generated by all experts,\textsuperscript{43} can be elaborated on by the proposed witness during a voir dire.

**JUNK SCIENCE AS AN UNSOUND BODY OF KNOWLEDGE AB INITIO**

The term “junk science” really needs no explanation; its incorporation of the word “junk” suggests that it is worthless. However, as the old adage goes “one man’s junk is another man’s treasure.”\textsuperscript{44} As such, a court of law must constantly be aware of the possibility that worthless science may inveigle itself into a trial record. Dubious sciences often bring with them a beguiling allure, with the proposed expert witness in the field more of a salesman than a scientist. Alan Gold warns that there are four danger signals that will typically expose junk science:

1) Data gathering that does not guard against “evidence tampering”;
2) A lack of any complete and objective record of the entire process of evidence gathering;
3) The absence of conclusion-drawing that is logical and cognizant of the necessity to determine every possible explanation other than the favoured theory, including mere chance; and,
4) Theory and claims that are not testable or falsifiable.\textsuperscript{45}

Indeed, with junk science, the scientific method is consciously avoided, because there is an awareness that the replication of consistent results from repeated testing cannot be achieved. While in real science the means justify the ends, in junk science circles, the converse is true.

Junk science is more often than not novel science; however, that is not always the case. Some junk science has kept a remarkable shelf-life. With regard to novel science, both the Canadian and United States Supreme Courts have developed tests which help trial judges determine threshold admissibility issues that involve scientific knowledge, particularly fledgling offerings. In Daubert v. Merrell Dow Pharmaceuticals, Inc.,\textsuperscript{46} the American approach was articulated to included four criteria:

\textsuperscript{43} See s. 557.3 (b)(i) and (ii) of the Criminal Code of Canada, R.S.C. 1985, Chap. C-46.
\textsuperscript{44} An English language proverb of unknown origin.
\textsuperscript{46} 509 U.S. 579 (1992).
1) Whether the theory or technique can be (and has been) tested;
2) Whether the theory or technique has been subjected to peer review and publication;
3) In the case of a particular technique, what the known or potential rate of error is or has been; and,
4) Whether the evidence has gained widespread acceptance within the scientific community.\textsuperscript{47}

In R. v. J. J., Binnie, J. expanded on the words of Sopinka, J. in Mohan that “expert evidence which advances a novel scientific theory or technique is subjected to special scrutiny to determine whether it meets a basic threshold of reliability.”\textsuperscript{48} Speaking for the Supreme Court of Canada in J.J., Mr. Justice Binnie agreed that many of the factors listed in Daubert resonated with the Canadian expert evidence experience and would assist in evaluating the legitimacy of a novel science.\textsuperscript{49} Thus, on both sides of the border, Canadian and American jurists are obliged to be on the lookout for, and be leery of, novel scientific evidence. “Novel” connotes “scientific evidence that is not yet generally accepted or that deviates from generally accepted standards or procedures.”\textsuperscript{50}

A good case to illustrate when novel science is rejected ab initio as junk science came in the decision of Jarvis, J. in R. v. Palombi.\textsuperscript{51} In the context of a child abuse prosecution, a defence expert was proffered to provide the court with expert testimony on the topic of, inter alia, Temporary Brittle Bone Disease (“TBBD”). As explained during the admissibility voir dire:

...When there is fetal immobilization – restricted movement of the fetus in the uterus – one result is that bone density is lost, or never developed to a normal degree, so that infants’ bones are extremely weak. As a consequence of this weakness, fractures can spontaneously occur without any special application of force. Dr. Miller’s theory is that this condition is temporary and generally resolves itself within a period of months, as evidenced by the fractures ceasing to occur anymore.\textsuperscript{52}

\textsuperscript{47} Ibid, at 593-594.
\textsuperscript{48} Supra, note 7, at para. 28.
\textsuperscript{49} [2000] 2 S.C.R. 600, at para. 33.
\textsuperscript{50} Supra, note 45, at 13.
\textsuperscript{52} Ibid, O.J. No. 3030, at para. 4.
In utilizing an amalgam of principles found in the Mohan, Daubert and J.J. cases, the court refused to allow the expert to testify on TBBD because:

- Only the proposed expert and one other in the world had promoted and written about the theory of TBBD;
- No controlled studies of TBBD had ever been conducted;
- The proposed expert’s writings on TBBD had appeared in only a small number of peer reviewed journals
- There appeared to be significant evidence of error; and,
- TBBD had not gained the general acceptance of the medical community.53

As the Greek philosopher Thales explained, “The wisest thing is time, for it brings everything to light.”54 In the area of forensic science, what may appear to be a certainty today is often exposed as decidedly less definite in the fullness of time. What is indeed a certainty is that, sometime during the career of a forensic scientist, he, or she, will unwittingly mislead a court because the expert testimony that was so cautiously and conservatively proffered will not stand the test of time, despite its present day appearance of correctness. Again, a case in point will illustrate Thales’ proposition. In 1959, in Canada, 14 year old Steven Murray Truscott was found guilty of the rape and murder of a 12 year old girl. It was a capital case, despite the offender’s age, and Mr. Truscott was sentenced to death by hanging.55 After exhausting the orthodox appeal routes, a Reference to the Supreme Court of Canada was convened in 1967, to essentially determine the propriety of the conviction, given that an application for leave to appeal to the Supreme Court of Canada was originally refused on February 24, 1960.56

Of seminal importance at the original trial was establishing the victim’s post mortem interval. In order to have committed the crime, Mr. Truscott had a very limited window of opportunity to do so and the calculation of the time of the victim’s death would either include or exclude his candidacy as the murderer. In the opinion of the pathologist who both examined the victim in situ, and who also conducted the autopsy, time of death was placed at between

55. See Reference re: Truscott, [1967] S.C.R. 309. Note that the sentence of death was commuted to life imprisonment on the same day that Mr. Truscott’s appeal to the Ontario Court of Appeal was dismissed: see (1960), 32 C.R. 150 (S.C.C.).
56. Ibid. a:3 (Q.L. version).
7:15 and 7:45 p.m. on June 9, 1959. Thus, the timeline arguably suggested that Mr. Truscott had exclusive opportunity to commit the crime based on eyewitness observations that straddled the opportunity window. The time of death calculation was based on the following evidence of the expert:

1) The extent of decomposition, which is entirely compatible with death approximately 45 hours prior to identification, having regard to the environmental and climatic conditions.

2) The extent of rigor mortis. This had almost passed off, a finding again compatible with death at a suggested time.

3) The limited degree of digestion, and the large quantity of food in the stomach for as long as two hours unless some complicating factor was present, of which I have no information. If the last meal was finished at 5:45 p.m., I would therefore conclude that death occurred prior to 7:45 p.m. The finding would be comparable with death as early as 7:15 p.m.

Some 40 years later, another Reference was ordered by the Federal Minister of Justice, this time to the Ontario Court of Appeal, to review Mr. Truscott’s conviction to determine if there was a reasonable basis to conclude that a miscarriage of justice likely occurred. A comprehensive review of the all the trial and initial Reference evidence was embarked upon, with close scrutiny remaining on the issue of time of death. Fresh pathological and gastroenterological evidence was considered by the court on the backdrop of the current medical knowledge base. During the relevant testimony it became apparent to the reviewing justices that a new focus of approach was now in place in forensic medicine circles, variously described in the following terms:

Traditionally, expert opinions were largely based on authoritative experience and anecdotal case reports. In the past few decades, and particularly in the last ten years, an alternative model has developed called the “evidence-based approach”. This approach requires a critical analysis of peer-reviewed literature and attention to primary reviewable evidence from the postmortem examination.

57. Ibid. at 14 (Q.L. version).
58. Ibid. Note that expert evidence to the contrary was tendered at the trial and at the original Supreme Court of Canada Reference which was obviously not persuasive on the jury or Canada’s highest court, regarding the time of death issue.
60. Ibid. at para. 169.
the evidence-based approach is "a new term for basing all medical treatment, diagnosis including pathology, on a firm experimental basis." in the 1960s and before, forensic pathologists tended to rely on their experience in performing autopsies as a basis for their conclusions, "often with very little challenge."61

In short order, the Ontario Court of Appeal became aware that, on an evidence-based analysis of the original expert testimony used by the prosecution in the Truscott trial, the conviction could not stand. The pathological science, as it stood in 1959, was exposed as being significantly flawed. The appellate court was educated on the process of decomposition and thus realized that it is a highly variable phenomenon that can visit cadavers, even drawn from the same environment, in entirely different ways; that rigor mortis is of no value for putting the time of death within a limited time frame, due to a multitude of internal and external variables; and, that stomach content volume and digestion status should never be used as probative evidence of the postmortem interval.62 Ultimately, the fresh expert evidence convinced the court that there was no scientific justification for the evidence, originally proffered by the prosecution that the victim must have died on June 9, 1959 between the hours of 7:00 and 7:45 p.m.63 Indeed, this new evidence undermined the findings of the Supreme Court of Canada at the first Reference.64 The passage of time had exposed the unreliability of a formerly accepted area of forensic endeavour.65

At times, the wheels of justice are slow in exposing faulty belief systems and assessment tools, simply because no lawyer has taken up the challenge. Remarkably, precedent and generally accepted opinion in a field can develop as a direct result of adversarial apathy. When lawyers become lulled into accepting the status quo, rather than employing the zealous form of inquiry that litigation requires, inaccurate perceptions of expert evidence can arise. It is possible that even the Supreme Court of Canada has been duped on occasion into recognizing certain syndromes that would have withered had they been properly scrutinized under the watchful eye of the scientific method. Such was the case in the matter of R. v. Olscamp,66 where the admissibility of expert

61. Ibid. at para. 183.
62. Ibid. at para. 163-214.
63. Ibid. at para. 215.
64. Ibid.
65. For further reading in the area of postmortem interval calculation see: Forensic Evidence in Canada, supra, note 9, at 136-147 (being part of chapter 8, contributed by David E. L. King).
evidence regarding the general behavioural and psychological characteristics of child victims of sexual abuse was challenged on the grounds that the very theory being advanced was unable to pass muster in terms of its validity.

Perhaps ironically, the trial judge in *Olscamp* was Madam Justice Louise Charron, later of the Supreme Court of Canada. In recognizing that evidence pertaining to the alleged distinctive presentations and expected portrayals of sexually abused children had already found its place as part of the jurisprudential landscape, the learned Justice was still alive to the fact that a *Mohan* voir dire remained an essential safeguard for the admission of expert evidence. As it turned out, even though the proposed evidence was logically relevant to an issue in the case, the court found that its probative value was extremely limited and its prejudicial effect potentially overwhelming. Separate and apart from the court’s finding that the particular expert in question lacked “the objectivity and professionalism expected from someone who undertakes such an important role, particularly at a criminal trial,” the court was also faced with the expert’s admission that there was no profile validity, in the scientific literature, for the sexually abused child:

The psychological literature illustrates the kinds of misconceptions that are common in this regard. Foremost among these is that there exists some form of valid, generally accepted profile of the child victim and of the child offender. There is none ... No reliable constellation of historical, demographic, personality or other factors has been found that accurately characterizes either the child victim or the child offender. Neither is there any reliable psychological or physiological test or method for determining whether a child has been sexually abused or whether someone has committed an act of sexual abuse ...  

To make matters worse, despite the lack of empirical data, the proposed expert in *Olscamp* was prepared to rely on her own clinical judgment and experience to bootstrap her opinion that certain symptoms are consistent with sexual

67. Ibid. at para. 15. Charron, J., as she then was, listed a number of reported decisions from provincial Courts of Appeal and the Supreme Court of Canada in this regard.
68. Ibid. at para. 17.
69. Ibid. at para. 24.
70. Ibid. at para. 8. The court was quoting from H. Weissman, “Forensic Psychological Examination of the Child Witness in Cases of Alleged Sexual Abuse” (1991), 16 (1) Amer. J. Orthopsychiat. 48, at 52.
abuse.\textsuperscript{71} However, her vainglorious assertion of clinical prowess was devoid of any evidence that would support the reliability of her clinical judgment.\textsuperscript{72} Thus, despite the historical recognition and acceptance of the type of expert evidence in question, given the court's case law review, Charron, J. concluded her 1994 decision by finding that "The present state of knowledge in the field is such that the soundness and reliability of any expert opinion purporting to characterize behavioural symptoms as 'consistent with sexual abuse' cannot be demonstrated."\textsuperscript{73}

Other examples of how much time it can take for forensic scientists to catch up with their mistakes, whether they be in the science itself or the language used to describe the point in issue, can be found in such diverse areas as hair and fiber analysis\textsuperscript{74} and the "Shaken Baby Syndrome" diagnosis.\textsuperscript{75} These and other

\textsuperscript{71} Ibid. at para. 12.
\textsuperscript{72} Ibid.
\textsuperscript{73} Ibid. at para. 14.
\textsuperscript{75} Consider the opinions accepted early on in cases like R. v. Lawrence, [1987] O.J. No. 1250 (H.C.J.), at 2-3 and juxtapose them with the cautionary note sounded by the Ontario Court of Appeal 24 years later in R. v. Kumar, [2011] O.J. No. 618 (C.A.), where the court at paragraph 19 observed:

In a lengthy report, Dr. Pollanen has provided a helpful review of the diverse views concerning the validity of Shaken Baby Syndrome. There are a number of controversies surrounding Shaken Baby Syndrome. Most prominent is the meaning that should be attached to the triad of symptoms considered to be indicative of SBS: thin film subdural haemorrhage (SDH), widespread bilateral retinal haemorrhage (RH), and hypoxic ischemic encephalopathy (HIE). In the early 1990's, when the autopsy was conducted in this case, these findings were widely accepted to be diagnostic of non-accidental head injury. In effect, the infant had been shaken to death with such force that any normal adult would realize that the infant would be seriously injured. The current view of forensic pathologists, although not necessarily clinicians, is that the triad is at worst suspicious, but can no longer be considered absolute proof of traumatic head injury in the absence of other evidence. There are some experts who hold the view that, in fact, there is no such thing as Shaken Baby Syndrome; it is impossible to apply sufficient force to an infant by shaking without there being other injuries such as trauma to the spine and neck areas.
areas of forensic pursuit serve to remind justice system stakeholders that the status quo must continually be challenged and re-assessed. To do otherwise, is to ensure that history repeats itself.

**EXPOSING BAD APPLES**

A good reputation, based on honesty, integrity and accuracy in testimony, can take a lifetime to establish and can be dashed in an ill-conceived moment. That ill-conceived moment has tremendous significance in the legal arena, for the lives of many can be irreparably damaged when the trial process is corrupted by falsehoods and inaccuracies that are often, at least at first instance, unknown to the litigants and the court. Of course, ideally it is hoped that the moral compass of each and every expert witness will help chart a proper course towards a just outcome. However, the lot of humankind has shown repeatedly that such halcyon goals are too often illusory. As such, other checks and balances must be engaged in order to maintain acceptable professional standards in the courtroom.

Many self-governing bodies take pride in the belief that the oversight of the membership will suffice in keeping each individual member in line. Perhaps born out of notions of group pride and the exclusivity of the society in question, self-governance is seen as an efficient way of maintaining the best traditions (i.e. honour and integrity) of the body in question, with whistle-blowing expectations seen as a desirable quality rather than one reserved for the common snitch. However, as one author has observed:

> We can't count on peer review weeding out the garden of junk science. Peer review seems to be about as popular and ineffectual for scientists as it is for lawyers and judges. I also rule out fear of consequences as providing effective control of charlatans. There has been a tendency to circle the wagons. The scientist is rarely fired for court related


76. For example, Rule 6 (3) of the Rules of Professional Conduct (2000), promulgated by The Law Society of Upper Canada ("LSUC"), places a positive duty on all lawyers to report the misconduct of their fellow lawyers to the LSUC.
performance, and prosecutions are unheard of even when there is evidence that the expert has perjured himself and obstructed justice in the process.77

Despite the rather pessimistic comments above, other observers of expert witnesses have recognized that there is at least some utility in “outing” those worthy of assailment.78 Some urge a two-stage approach where admissibility hearings regarding expert testimony in court can be bolstered by the spectre of a professional organization’s sanction waiting when the witness leaves the witness stand.79 The consequence of the judicial endgame that rules expert testimony inadmissible is self-evident for the litigation in question, whereas shining a light on the impugned testimony that casts a shadow outside the four corners of the litigation can have more significant consequences:

An “outing” might cause the expert to be more careful in the future and to have a better justification for opinions. It may adversely affect an expert’s academic reputation. A serious “outing” may cause other lawyers to be less willing to hire the expert in the future. Each of these effects may be more or less consequential depending on the situation of the individual expert.80 (citations omitted)

Canadian jurisprudence has made it, in the author’s opinion, unnecessarily difficult to expose suspect expert witnesses for what they are. In R. v. Marquard,81 the Supreme Court of Canada threw an undeserved life ring to all poorly informed expert witnesses by circumscribing how counsel can attempt to impeach expert testimony when challenging the area of general knowledge in the field. In short, when an expert professes ignorance of a publication or, in his, or her, opinion feels that the publication is not authoritative, no further cross-examination can occur on the treatise in question. Thus, discrediting an expert is dependent on how well-read they may be and how willing they are to concede why the writing in question commands respect and influence. Rather than foreclose questioning without the two conditions-precedent being in place,

78. See Paul C. Giannelli and Kevin C. McMunigal, “Prosecutors, Ethics and Expert Witnesses” (2007), 76 Fordham L. Rev. 1493. In particular, note the outing of Dr. Michael West, a Mississippi dentist, at 1501-1506.
80. Ibid., at 1571.
one wonders why the expert should not be left to joust the point completely with counsel when counsel sees fit? Surely the obscurity of the publication or the unimportance of its content can be easily explained by expert who has claimed it to be the case.

A similarly bizarre Canadian practice forecloses, barring an actual conviction for perjury or for the giving of contradictory evidence, cross-examining a witness on the fact that his, or her, testimony has been rejected or disbelieved in a prior case.\(^{82}\) Essentially, the purported logic behind the rule suggests that previous disbelief/rejection is not easily reviewable by the triers of fact faced with the present allegations. Without walking a mile in the earlier-in-time fact-finders’ shoes, a potential for misleading scenarios and inappropriate inferences becomes a legitimate concern, or so the logic goes. In the case of R. v. Ghorvei, the trial judge described the police officer in question as “a compulsive liar” whose testimony was “false”.\(^{83}\) It would seem, given those emphatic findings of fact, that the necessity for a conviction for a lying under oath type of offence is rendered superfluous. Nevertheless, because it is often speculative to try to determine how credibility findings were made in other trials, the Ghorvei rule is equally applicable to expert witness testimony.\(^{84}\) Practitioners and Academics alike have expressed alarm “that an expert discredited in one trial, may remain unscathed in the next trial, and so on ad infinitum as if nothing ever happened, even if the opposing counsel is fortunate enough to have the ammunition from previous flameouts.”\(^{85}\) As explained by Professor David M. Tanovich, at least in the case of lying by the police:

Lying by police officers is very much discreditable conduct, especially in light of the systemic nature of the problem. Moreover, police officers are, unlike most witnesses, professional witnesses. They are experienced in testifying and they are permitted to use their notes. Lying also breaches their duty as public servants and as officers of the administration of justice.\(^{86}\)

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85. Supra, note 77, at 4.
It is submitted that much of the foregoing passage could be superimposed onto the expert witness experience.

There is no shortage of examples in Canadian jurisprudence, and elsewhere, where rogue experts have been exposed to the cold light of day for their forensic misconduct. See for example: Loblaws Inc. v. United Dominion Industries Ltd., [2007] N.J. No. 72 (S.C.T.D.) - structural engineering; McCarthy v. State, 765 P. 2d 1215 (Okla. Crim. App. 1988) - forensic chemistry; Re AB (Child Abuse: Expert Witnesses), [1994] E.W.H.C. Fam 5 - medicine. A key word search of any legal database, using the name of the expert in question, will often open the floodgates. To paraphrase the boxer Joe Louis, [the expert] “can run [from trial to trial], but he can’t hide.”

CONCLUSION

Fortunately for justice, courts are now much more inclined to exclude the testimony of an expert witness from a trial where, on a voir dire, bias becomes apparent. Independence and objectivity remain the watchwords that officers of the court must continue to relay to the experts they consider retaining. Bold, sweeping statements that are not reflected in valid research will sound the advocacy alarm for courts that are standing guard to ensure that causes do not take precedence over content.

While it is hoped that justice systems will continue to provide lawyers with the tools to expose unethical and consciously biased expert witnesses, these measures alone will not suffice. Respectable expert witnesses must themselves continue to push back against the pressures they experience that, if succumbed to, would militate against moral scientific conduct. With a balanced and reciprocal effort, ethicality will continue to be the rule, and not the exception, that governs the conduct of the expert witness.

87. As quoted in The Coshocton Tribune, Coshocton, Ohio (June 9, 1946).