Her Majesty the Queen v. Abbey

[Indexed as: R. v. Abbey]

97 O.R. (3d) 330

Court of Appeal for Ontario,
Doherty, MacPherson and Lang JJ.A.
August 27, 2009

Criminal law -- Evidence -- Expert evidence -- Crown alleging that accused had killed rival gang member -- Accused getting teardrop tattoo about 4 or 5 months after the murder -- Accused acquitted of first degree murder after evidence excluded -- Crown appealing -- Crown seeking to call expert evidence of sociologist about possible meanings of teardrop tattoo within gang culture -- Trial judge making several errors in ruling that expert evidence not sufficiently reliable including failing to properly define nature and scope of proposed evidence and characterizing it as "novel scientific theory" -- Criteria applicable to admissibility of expert evidence regarding "hard science" not relevant to social science opinion based on specialized knowledge arising from experience, research and studies -- Trial judge applying too high a standard of [page331] reliability and considering factors relevant only to ultimate reliability -- Appropriate test whether expert's research and experience allowed him to develop sufficiently specialized knowledge regarding possible meanings of teardrop tattoo within gang culture to justify placing opinion before jury -- Trial judge also erring in excluding evidence of three members of accused's gang regarding meaning of tattoo and evidence of gang member regarding exchange with accused immediately before alleged confession to gang member -- Cumulative effect of erroneously excluded evidence sufficient to demonstrate that verdict may not necessarily have

been the same and new trial ordered.

The accused was charged with first degree murder. It was the theory of the Crown that the accused was associated with a street gang, the Malvern Crew, which was engaged in a violent turf war with another gang, and that he shot the deceased because he believed that he was a member of the rival gang. In addition, two members of the Malvern Crew, AB and CS, erroneously told the accused that the victim was the man who had robbed him some months before. AB and CS testified as Crown witnesses and implicated the accused in the shooting. Four or five months after the shooting, the accused had a teardrop tattoo inscribed on his face. The Crown attempted to elicit evidence as to the meaning of the teardrop tattoo from AB, CS and another gang member, GD, from Dr. T, a sociologist who was an acknowledged expert in the culture of Canadian street gangs and from a police officer with extensive experience dealing with gangs. It was agreed, for the purpose of determining the admissibility of Dr. T's evidence, that the accused was an associate of the Malvern Crew and that the murder was gang-related. In his report and his testimony on the voir dire, Dr. T stated that a teardrop tattoo on the face of a young male member of an urban street gang signified one of three things: the death of a fellow gang member or family member of the wearer of the tattoo; that the wearer had been incarcerated in a correctional facility; or that the wearer had murdered a rival gang member. The trial judge did not permit Dr. T to give expert evidence at trial on the basis that the evidence was not sufficiently reliable. He characterized the proposed evidence as a "novel scientific theory", thereby invoking the stringent test in Daubert. He then applied criteria applicable to expert evidence in a "hard science". The trial judge criticized the proposed evidence on the basis that the expert couldn't provide an error rate, the sample of gang members interviewed was not large enough and did not include members of the accused's gang, was said to conflict with one published article in the field, his interview suspects were of doubtful credibility and his opinion had internal inconsistencies. The judge also found that the facts underlying the opinion hadn't been proven because it had not been peer-reviewed. The trial judge did not permit the three gang members to testify as to their understanding of the

meaning of the teardrop tattoo. He found that as they couldn't point to a specific source for their understanding apart from the media and what they had heard "on the street", and therefore their opinions were based on hearsay and were unreliable. The trial judge also excluded evidence from a gang member about an exchange with the accused immediately before he allegedly confessed to the details of the murder. The accused was acquitted. The Crown appealed.

Held, the appeal should be allowed.

A trial judge must be cautious in defining the boundaries of the proposed expert evidence and ensuring that the evidence adduced remains within those confines. The first part of the process is to determine if the party seeking to adduce the evidence demonstrates that the criteria for the admission of expert evidence are met. The conditions for admissibility are whether the proposed evidence is about [page332] something that is properly the subject of expert evidence, whether the witness is qualified to give the opinion, whether another evidentiary rule mandates the exclusion of the evidence and whether it is logically relevant to a material issue at trial. Second, the judge must perform a gate-keeping function by weighing whether, even if the proposed evidence meets the criteria for admission, its benefits to the trial process outweigh the risks of admitting it including the consumption of time, prejudice and whether the evidence is so complex that may confuse a jury.

The trial judge made five legal errors in his analysis. First, he failed to properly define the nature and scope of the expert's evidence before examining its admissibility. Second, when assessing the reliability of the evidence, he applied criteria applicable to opinions relating to "hard" science, such as error rates and random sampling, and failed to apply criteria that were relevant to non-scientific expert evidence, such as that given by Dr. T. Third, the trial judge imposed too high a standard for the reliability of the opinion and misunderstood some aspect of the evidence. Fourth, he considered factors that were relevant to ultimate reliability that was the province of the jury rather than limiting himself to threshold reliability. Fifth, he erred in finding that as

the opinion had not been peer-reviewed, the facts underlying it had not been proven and it was therefore inadmissible.

Dr. T's expertise, like those of other professionals who might testify as non-scientific experts, came from his training, experience, research and studies he has conducted and reviewed. There are different criteria that assist in examining the reliability of such experts, including reviewing the expert's qualifications within a recognized field of specialized training, whether there are quality assurance standards that another person in the field could review, whether the methodology used to gather information relied upon by the expert enhance its reliability and whether the data relied upon was gathered independently from the litigation process.

Three members of the gang to which the accused was alleged to belong should have been permitted to testify about their understanding of what a teardrop tattoo meant within their own culture, which included their own membership in the same gang and friends and family members who were also part of that gang. Their evidence was not a form of expert evidence and the trial judge erred it as unreliable because none of them had a teardrop tattoo or because none of them could point to a specific source for their belief as to what it meant within their culture. If the jury accepted the expert's evidence about the possible inferences arising from getting a teardrop tattoo and the other gang member's evidence about what it meant within their gang, this could strongly support an inference that the accused got the tattoo because he had killed someone.

The third gang member was permitted to testify about the accused's admission about the circumstances surrounding the murder of the victim but not about their exchange right before that admission. The exchange, which began by the gang member suggesting to the accused that he was "bringing heat" on himself by getting the tattoo, but his statement did not refer to a murder. The accused then immediately began a detailed explanation about the murder. Had that evidence been admitted, it also supported the inference that the accused also believed that a person wearing a teardrop tattoo had killed someone.

It is not necessary to rule on the Crown's additional argument that the trial judge erred by excluding the evidence of a police officer with extensive gang experience about the meaning of the tattoo. The record of the parties' positions regarding the admissibility of this evidence is not clear from the trial record and a new trial judge will be free to review this issue afresh. [page333]

Viewed cumulatively, the improperly excluded evidence of Dr. T. about possible explanations for the tattoo, and the three gang members about the meaning of the tattoo within their gang, and the exchange between one of the gang members and the accused just before the latter's admission, were sufficient to meet the Crown's burden of showing that but for the errors the verdict would not necessarily have been the same. A new trial is ordered.

Cases referred to

Daubert v. Merrell Dow Pharmaceuticals Inc., 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993); R. v. Mohan, [1994] 2 S.C.R. 9, [1994] S.C.J. No. 36, 114 D.L.R. (4th) 419, 166 N.R. 245, J.E. 94-778, EYB 1994-67655, 71 O.A.C. 241, 89 C.C.C. (3d) 402, 29 C.R. (4th) 243, 23 W.C.B. (2d) 385, consd

Other cases referred to

Kumho Tire Co. v. Carmichael, 526 U.S. 137, 119 S. Ct. 1167, 143 L. Ed. 2d 238 (1999); R. v. Abbey, [2007] O.J. No. 277, 73 W.C.B. (2d) 411 (S.C.J.); R. v. Abbey, [2007] O.J. No. 443, 72 W.C.B. (2d) 502 (S.C.J.); R. v. Abbey, [2007] O.J. No. 547 (S.C.J.); R. v. B. (S.A.), [2003] 2 S.C.R. 678, [2003] S.C.J. No. 61, 2003 SCC 60, 231 D.L.R. (4th) 602, 311 N.R. 1, [2004] 2 W.W.R. 199, J.E. 2003-2086, 21 Alta L.R. (4th) 207, 339 A.R. 1, 178 C.C.C. (3d) 193, 14 C.R. (6th) 205, 112 C.R.R. (2d) 155, 58 W.C.B. (2d) 430; 112 C.R.R. (2d) 155, 58 W.C.B. (2d) 430; R. v. Batista, [2008] O.J. No. 4788, 2008 ONCA 804, 238 C.C.C. (3d) 97, 62 C.R. (6th) 376, 181 C.R.R. (2d) 300; R. v. Bernardo, [1995] O.J. No. 2249, 42 C.R. (4th) 96, 28 W.C.B. (2d) 130 (Gen. Div.); R. v. Bonisteel, [2008] B.C.J. No. 1705, 2008 BCCA 344, 61 C.R.

(6th) 64, 79 W.C.B. (2d) 506, 259 B.C.A.C. 114, 236 C.C.C. (3d) 170; R. v. Clark (2004), 69 O.R. (3d) 321, [2004] O.J. No. 195, 181 O.A.C. 276, 182 C.C.C. (3d) 1, 61 W.C.B. (2d) 104 (C.A.); R. v. Clarke, [1998] O.J. No. 3521, 112 O.A.C. 233, 129 C.C.C. (3d) 1, 18 C.R. (5th) 219, 39 W.C.B. (2d) 389 (C.A.); R. v. D. (D.), [2000] 2 S.C.R. 275, [2000] S.C.J. No. 44, 2000 SCC 43, 191 D.L.R. (4th) 60, 259 N.R. 156, J.E. 2000-1894, 136 O.A.C. 201, 148 C.C.C. (3d) 41, 36 C.R. (5th) 261, 47 W.C.B. (2d) 311; R. v. Dimitrov (2003), 68 O.R. (3d) 641, [2003] O.J. No. 5243, 180 O.A.C. 338, 181 C.C.C. (3d) 554, 18 C.R. (6th) 36, 59 W.C.B. (2d) 488 (C.A.) [Leave to appeal to S.C.C. refused (2004), 70 O.R. (3d) xvii, [2004] S.C.C.A. No. 59]; R. v. F. (D.S.) (1999), 43 O.R. (3d) 609, [1999] O.J. No. 688, 169 D.L.R. (4th) 639, 118 O.A.C. 272, 132 C.C.C. (3d) 97, 23 C.R. (5th) 37, 41 W.C.B. (2d) 315 (C.A.); R. v. G. (P.), [2009] O.J. No. 121, 2009 ONCA 32, 63 C.R. (6th) 301, 244 O.A.C. 316, 242 C.C.C. (3d) 558; R. v. Grant, [2005] O.J. No. 5891 (S.C.J.); R. v. Graveline, [2006] 1 S.C.R. 609, [2006] S.C.J. No. 16, 2006 SCC 16, 266 D.L.R. (4th) 42, 347 N.R. 268, J.E. 2006-916, 207 C.C.C. (3d) 481, 38 C.R. (6th) 42, 69 W.C.B. (2d) 721, EYB 2006-104245; R. v. H. (H.J.), [2002] B.C.J. No. 3103, 2002 BCSC 1833, 57 W.C.B. (2d) 484 (S.C.); R. v. J. (J.), [2000] 2 S.C.R. 600, [2000] S.C.J. No. 52, 2000 SCC 51, 192 D.L.R. (4th) 416, 261 N.R. 111, J.E. 2000-2140, 148 C.C.C. (3d) 487, 37 C.R. (5th) 203, 47 W.C.B. (2d) 591; R. v. K. (A.) (1999), 45 O.R. (3d) 641, [1999] O.J. No. 3280, 176 D.L.R. (4th) 665, 137 C.C.C. (3d) 225, 27 C.R. (5th) 226, 67 C.R.R. (2d) 189, 43 W.C.B. (2d) 349 (C.A.); R. v. Klymchuk, [2005] O.J. No. 5094, 205 O.A.C. 57, 203 C.C.C. (3d) 341, 68 W.C.B. (2d) 1 (C.A.); R. v. L. (E.A.), [1998] O.J. No. 4160, 141 O.A.C. 234, 130 C.C.C. (3d) 438, 40 W.C.B. (2d) 42 (C.A.); R. v. Lindsay, [2004] O.J. No. 4097, [2004] O.T.C. 896, 63 W.C.B. (2d) 464 (S.C.J.); R. v. Llorenz, [2000] O.J. No. 1885, 132 O.A.C. 201, 145 C.C.C. (3d) 535, 35 C.R. (5th) 70, 46 W.C.B. (2d) 350 (C.A.); R. v. McIntosh (1997), 35 O.R. (3d) 97, [1997] O.J. No. 3172, 102 O.A.C. 210, 117 C.C.C. (3d) 385, 35 W.C.B. (2d) 377 (C.A.) [Leave to appeal to S.C.C. refused [1998] 1 S.C.R. xii, [1997] S.C.C.A. No. 610]; R. v. Morin, [1988] 2 S.C.R. 345, [1988] S.C.J. No. 80, 88 N.R. 161, J.E. 88-1374,

30 O.A.C. 81, 44 C.C.C. (3d) 193, 66 C.R. (3d) 1, 5 W.C.B. (2d) 309; R. v. Nahar, [2004] B.C.J. No. 278, 2004 BCCA 77, 193 B.C.A.C. 217, 23 B.C.L.R. (4th) 269, 181 C.C.C. (3d) 449, 20 C.R. (6th) 30, 60 W.C.B. (2d) 497; R. v. Olscamp, [1994] O.J. No. 2926, 95 C.C.C. (3d) 466, 35 C.R. (4th) 37, 26 W.C.B. (2d) 82 (Gen. Div.); [page334] R. v. Osmar (2007), 84 O.R. (3d) 321, [2007] O.J. No. 244, 2007 ONCA 50, 220 O.A.C. 186, 217 C.C.C. (3d) 174, 44 C.R. (6th) 276, 150 C.R.R. (2d) 301, 73 W.C.B. (2d) 98 [Leave to appeal to S.C.C. refused (2007), 85 O.R. (3d) xviii, [2007] S.C.C.A. No. 157]; R. v. Ranger (2003), 67 O.R. (3d) 1, [2003] O.J. No. 3479, 176 O.A.C. 226, 178 C.C.C. (3d) 375, 14 C.R. (6th) 324, 59 W.C.B. (2d) 21 (C.A.); R. v. Trochym, [2007] 1 S.C.R. 239, [2007] S.C.J. No. 6, 2007 SCC 6, 276 D.L.R. (4th) 257, 357 N.R. 201, J.E. 2007-279, 221 O.A.C. 281, 216 C.C.C. (3d) 225, 43 C.R. (6th) 217, 71 W.C.B. (2d) 895, EYB 2007-113047; R. v. Wilson, [2002] O.J. No. 2598, [2002] O.T.C. 453, 166 C.C.C. (3d) 294, 54 W.C.B. (2d) 518 (S.C.J.); St. John (City) v. Irving Oil Co., [1966] S.C.R. 581, [1966] S.C.J. No. 36, 58 D.L.R. (2d) 404, 52 M.P.R. 126; United States of America v. Hankey, 203 F.3d 1160 (9th Cir. 2000); United States of America v. Mejia, 545 F.3d 179 (2nd Cir. 2008)

Statutes referred to

Criminal Code, R.S.C. 1985, c. C-46, s. 486.5 [as am.]

Authorities referred to

Hill, S. Casey, David M. Tanovich and Louis P. Strezos, McWilliams' Canadian Criminal Evidence, 4th ed., looseleaf (Aurora, Ont.: Canada Law Book, 2009)

Leonard, David. P., Edward J. Imwinkelried, David H. Kaye, David E. Bernstein and Jennifer L. Mnookin, The New Wigmore: A Treatise on Evidence (New York: Aspen Publishers, 2004)

Mark, Melvin M., "Social Science Evidence in the Courtroom: Daubert and Beyond?" (1999), 5 Pychol. Pub. Pol'y. & L. 175

Ontario, Inquiry into Pediatric Forensic Pathology in Ontario, Report: Policy and Recommendations, vol. 3 (Toronto: Queen's Printer, 2008)

Ontario, Report of the Kaufman Commission on Proceedings Involving Guy Paul Morin, vol. 1 (Toronto: Queen's Printer, 1998)

Paciocco, David M., "Context, Culture and the Law of Expert Evidence" (2001), 24 Adv. Q. 42

Paciocco, David M., "Coping With Expert Evidence About Human Behaviour" (1999), 25 Queen's L.J. 305
Paciocco, David M., "Taking a 'Goudge' out of Bluster and Blarney: an 'Evidence-Based Approach' to Expert Testimony" (2009), 13 Can. Crim. L.R. 135
Paciocco, David M., and Lee Stuesser, The Law of Evidence, 5th ed. (Toronto: Irwin Law Inc., 2008)
Pratte, Guy, Nadia Effendi and Jennufer Brusse, "Experts in Civil Litigation: A Retrospective on Their Role and Independence with a View to Possible Reforms" in Hon. Archibald, Todd L. and Hon. Randall Scott Echlin, Annual Review of Civil Litigation, 2008 (Toronto: Thomson Carswell, 2008)
Sales, Bruce Dennis, and Daniel W. Shuman, Experts In Court: Reconciling Law, Science, and Professional Knowledge (Washington, D.C.: American Psychological Association, 2005)

APPEAL by the Crown from the acquittal returned on March 29, 2007 in Toronto, Ontario by a jury presided over by Archibald J. of the Superior Court of Justice on a charge of first degree murder.

Randy Schwartz, for appellant.

Christopher Hicks and Catriona Verner, for respondent.

[page335]

The judgment of the court was delivered by

DOHERTY J.A.: --

I. Overview

[1] A jury acquitted the respondent of first degree murder. The Crown appeals, alleging that the trial judge erred in law in excluding evidence relating to the meaning of a teardrop tattoo the respondent had inscribed on his face a few months after the murder. At trial, the Crown contended that the

excluded evidence, considered as a whole, provided evidence from which the jury could infer that the respondent had killed a rival gang member. The Crown contended that this evidence, placed in the context of the rest of the evidence, provided a strong case identifying the respondent as the killer of Simeon Peter, the victim named in the indictment. Identity was the only live factual issue at trial.

[2] The Crown attempted to elicit evidence as to the meaning of the teardrop tattoo from three gang members, A.B., C.S. and G.D.; [See Note 1 below] Detective Sergeant Quan, a police officer with extensive involvement with Toronto street gangs; and Dr. Mark Totten, an acknowledged expert in the culture of Canadian street gangs. For various and different reasons, the trial judge refused to allow any of these witnesses to testify as to their understanding of the meaning of the teardrop tattoo.

[3] On appeal, the Crown argues that the exclusion of the evidence of the gang members, standing alone, constitutes a reversible error in law. Crown counsel makes the same submission with respect to the exclusion of Dr. Totten's evidence. Counsel submits that the exclusion of Detective Sergeant Quan's evidence, while not sufficient on its own to merit a new trial, exacerbates the improper exclusion of the other evidence.

[4] I would allow the appeal. For the reasons that follow, I would hold that the trial judge erred in excluding Dr. Totten's evidence insofar as that evidence identified the potential meanings of the teardrop tattoo within the urban street gang culture. I would also hold that the three gang members should have been [page336] allowed to testify as to the meaning of that tattoo within the culture that they shared with the respondent. Finally, I would hold that the witness, G.D., should have been allowed to provide evidence of his comments concerning the respondent's tattoo, made during his conversation with the respondent immediately before the respondent's description of his involvement in the murder. Had G.D. been allowed to testify to the entirety of this interaction, a jury may well have inferred from the respondent's conduct that the inscription of the tattoo on his

face was related to the murder. The improperly excluded evidence, taken as a package, could well have affected the verdict. The acquittal must be quashed and a new trial ordered.

[5] I will not address the merits of the Crown's argument that the trial judge should have admitted the evidence of Detective Sergeant Quan. The trial record on this issue is unclear in many respects and the appeal can be resolved without deciding the admissibility of this evidence.

II. The Evidence

[6] In January 2004, two Toronto street gangs, the Malvern Crew and the Galloway Boys, both of whom claimed parts of Scarborough as their territory, were engaged in a bloody turf war. Several members of the Malvern Crew had been the targets of drive-by shootings attributed to the Galloway Boys. Any sighting of a member of the Galloway Boys in the part of Scarborough regarded as Malvern territory could instigate a violent reaction by members of the Malvern Crew. The respondent lived in Empringham, part of the Malvern district of Scarborough. He was an associate of the Malvern Crew with ties to a gang called the "Emps", a subset of the Malvern Crew operating in the Empringham area.

[7] On the afternoon of January 8, 2004, Mr. Simeon Peter and his girlfriend, Clorie-Ann Anderson, were walking towards Ms. Anderson's home in the Malvern district of Scarborough. Ms. Anderson noticed that they were being followed. Mr. Peter slowed down and fell behind Ms. Anderson. The person following Mr. Peter opened fire, striking Mr. Peter with at least one bullet. The shooter approached the wounded Mr. Peter and shot him from close range. He then fled the scene, running through backyards in the direction of Empringham Park. The police later found seven cartridge casings along the route where the shots were fired. The post-mortem examination revealed that Mr. Peter had been shot three times.

[8] It was agreed at trial that the murder was gang related and that one or more of the Malvern Crew had killed Mr. Peter [page337] believing that he was a member of the Galloway Boys. [See Note 2 below] The Crown contended that the respondent was

the shooter and that he had the help of A.B. and C.S., two other Malvern Crew members. The defence did not call any evidence but argued that the respondent had nothing to do with the shooting and that A.B. and/or C.S. had killed Mr. Peter.

[9] The respondent was not arrested until March 2005, some 14 months after the homicide. Apart from the excluded teardrop tattoo evidence, the Crown's case was based on evidence of motive; the testimony of A.B. and C.S.; the testimony of G.D., a third member of the Malvern Crew; and some circumstantial evidence.

[10] The Crown advanced two motives for the murder. First, the Crown contended that the respondent and his accomplices decided to kill Mr. Peter because, as members of the Malvern Crew, they believed that Mr. Peter, who they thought was a member of the rival Galloway Boys, had no right to be in their territory. The Crown contended that in the street gang world inhabited by the respondent and his accomplices, a rival gang member's presence in the territory of the Malvern Crew was enough to justify killing that individual. The Crown led evidence to establish the existence of these street gangs, their respective territories, their bloody rivalry and the manner in which they operated.

[11] The second motive relied on by the Crown was more personal to the respondent. When Mr. Peter was seen by A.B. and C.S. on January 8, 2004, they mistakenly believed that he was a person named "Tevin", a Galloway Boys gang member who had recently robbed the respondent. They reported this information to the respondent, who, on the Crown's theory, went after Mr. Peter and shot him.

[12] The Crown alleged that A.B. and C.S. assisted the respondent in the commission of the murder. Both were members of the Malvern Crew. They had criminal records and were admitted drug dealers. Both testified as part of a plea agreement, which saw them receive lenient treatment in return for acknowledging their involvement in the Malvern Crew, admitting responsibility in certain criminal activities and testifying against the respondent. The trial judge cautioned

the jury against relying on the unconfirmed evidence of either A.B. or C.S.

[13] A.B. testified that on January 8, 2004, he and C.S. were driving through Scarborough on their way to Ajax, Ontario to [page338] see another member of the Malvern Crew. As they approached the highway, they noticed Ms. Anderson and Mr. Peter. C.S. recognized Ms. Anderson as a person who went out with members of the Galloway Boys. A.B. and C.S. decided that Mr. Peter could well be a member of the Galloway Boys and that he should not be in the Malvern Crew territory.

[14] A.B. testified that he and C.S. decided to go to the respondent's home as it was nearby. They needed a gun to go after Mr. Peter and they knew that the respondent had access to the guns communally used by members of the Malvern Crew. A.B. also thought that the respondent would be interested in going after Mr. Peter because he believed Mr. Peter was the man named "Tevin" who had robbed the respondent about a week earlier.

[15] A.B. and C.S. arrived at the respondent's home and told him that they had seen a suspected Galloway Boys member in their territory. They told the respondent that it could be "Tevin" -- the person who had robbed him. According to A.B., the respondent agreed to go after this person. He was armed. The three men drove to where Mr. Peter and Ms. Anderson had been seen earlier by A.B. and C.S. They saw Mr. Peter and Ms. Anderson get on a bus. They followed the bus until Ms. Anderson and Mr. Peter disembarked. The respondent got out of the car and followed Ms. Anderson and Mr. Peter on foot.

[16] A.B. and C.S. drove to Ajax. About 20 minutes after letting the respondent out of the car, A.B. called him on his home number and spoke with him. He did not ask the respondent what had happened because he thought the phone could be tapped by the police. He asked the respondent if everything was okay, and the respondent replied that it was. A.B. told him he should take a shower.

[17] A.B. spoke to the respondent the next day. The respondent told A.B. that he believed that Mr. Peter had a gun

so he had shot him in the leg from behind. He then ran up to Mr. Peter and shot him again. The respondent went on to tell A.B. that he turned the gun on Ms. Anderson intending to shoot her but that he was out of bullets. The respondent recounted how he ran home and subsequently disposed of the gun. A.B. also testified about other similar conversations with the respondent. The respondent complained that rumours were circulating that he was the shooter and that he was being teased for having run out of bullets before he could shoot Ms. Anderson.

[18] C.S. denied any involvement in the murder. He testified that he was in his vehicle with A.B. and the respondent when they saw Mr. Peter and Ms. Anderson standing at a bus shelter. There was some discussion about Mr. Peter being a member of [page339] the Galloway Boys, but there was no discussion about doing him any harm. According to C.S., shortly after they passed the bus shelter, the respondent left the vehicle indicating he wanted to visit a friend who lived nearby.

[19] C.S. testified that in the days after the murder, the respondent told him that he had shot Mr. Peter. The respondent told C.S. that Mr. Peter was the person who had robbed him earlier. The respondent described how he followed Mr. Peter and his girlfriend, shot Mr. Peter in the leg, caught up to him and shot him a couple more times. The respondent also told C.S. that he had turned the gun on Ms. Anderson and tried to shoot her but that it was out of bullets.

[20] C.S.'s credibility was even more suspect than A.B.'s credibility. The Crown ultimately told the jury that it should reject C.S.'s evidence except where it was supported by other evidence. In the end, the Crown relied only on C.S.'s evidence regarding the admissions made to him by the respondent.

[21] G.D., the third member of the Malvern Crew to testify for the Crown, had nothing to do with this murder. G.D. was, however, a long-time senior member of the Malvern Crew street gang. G.D. had a lengthy criminal record and had been arrested on a variety of offences. He ultimately decided to co-operate with the police and give evidence concerning the operation of

the Malvern Crew and his conversations with the respondent. G.D. was serving a 12-year sentence when he testified against the respondent. He had not entered into any plea agreement with the Crown in exchange for his testimony; however, his co-operation was considered by the trial judge as a mitigating factor when G.D. received the 12-year sentence.

[22] G.D. testified that the respondent told him that he and three other members of the Malvern Crew had killed Mr. Peter, who they believed to be a member of the rival gang. According to the respondent, he was chosen as the shooter because the other three gang members knew Ms. Anderson. G.D. testified that the respondent told him that he followed the victim and Ms. Anderson, shot the victim first in the leg and then chased him down and shot him again. The respondent also told G.D. that he tried to shoot Ms. Anderson but that the gun was out of bullets. [See Note 3 below] [page340]

[23] In addition to the evidence from the gang members, there was some circumstantial evidence, which played a minor supporting role in the Crown's case. Cellphone records confirmed that the respondent was in the vicinity of the shooting shortly before it occurred and that he was at his residence, also within the vicinity of the shooting, shortly after the shooting occurred. Shoeprint impressions taken at the scene indicated that the shooter probably wore size 13 Nike Air Force 1 shoes. The respondent wore size 13 Nike Air Force 1 shoes. The police could not, however, connect any shoes owned by the respondent to the murder scene. The shoes he was wearing when arrested, some 14 months after the homicide, were not manufactured until sometime after the homicide.

[24] Expert evidence also established that the seven cartridge casings found at the scene of the murder matched a .45 calibre semi-automatic handgun manufactured by Springfield Armory. That gun is a near exact replica of the Colt model handgun commonly referred to as a "Colt .45". A.B. testified that Malvern Crew gang members, including the respondent, had access to a communal "Colt .45" handgun.

III. The Admissibility of Dr. Totten's Evidence

(i) Background

[25] The Crown offered Dr. Totten, a sociologist, as an expert in the culture of urban street gangs in Canada. The Crown proposed to have Dr. Totten give his opinion as to the meaning of a teardrop tattoo within the urban street gang culture and to give his opinion as to the meaning of the respondent's teardrop tattoo. The admissibility of this evidence was one of several issues addressed in a series of pre-trial motions that proceeded intermittently for several weeks prior to trial. Dr. Totten prepared a report dated December 8, 2006. He testified on a voir dire and his report was filed on consent. Following Dr. Totten's evidence, the trial judge expressed concerns about its admissibility and invited the Crown to address those concerns by way of further evidence from Dr. Totten. Dr. Totten prepared a second report, dated January 3, 2007, which was also filed as an exhibit. He testified for a second time. The defence did not call any evidence on the voir dire and the trial judge's ruling was based on Dr. Totten's evidence and the contents of the two reports. [See Note 4 below] [page341]

[26] Several facts were agreed upon for the purpose of determining the admissibility of Dr. Totten's evidence. It was agreed that the respondent was an associate of the Malvern Crew street gang with proven ties to the Emps, a subset of the Malvern Crew. It was also agreed that the Malvern Crew and the Galloway Boys were involved in a bloody turf war in January 2004 when Mr. Peter was killed and that his murder was gang related. Counsel further agreed for the purpose of the voir dire that the respondent had a teardrop tattoo inscribed on his face some time in May or June 2004, about four or five months after the homicide. Counsel also agreed that no other member of the Galloway Boys was murdered in the first half of 2004 and that the person or persons who killed Mr. Peter believed that he was a member of the Galloway Boys.

[27] The defence also conceded the following facts:

-- no member of the Malvern Crew was murdered in 2003 or 2004;
-- no close family member of the respondent died in 2003 or in the first six months of 2004; and
-- the respondent had not spent any significant time in a

penitentiary or a correctional institution.

[28] This latter group of admissions was relevant to the three possible meanings of the teardrop tattoo put forward by Dr. Totten in his reports and testimony.

(ii) The Crown's position

[29] The Crown contended that Dr. Totten's expertise extended to the manner in which gang members communicated with each other and with members of other gangs. Various symbols, including tattoos, had certain meanings within the gang culture and were used to communicate with fellow gang members and sometimes with rival gang members. The Crown submitted that Dr. Totten's numerous research studies, his long clinical experience and his review of the relevant academic literature, enabled him to offer the opinion that a teardrop tattoo inscribed on the face of a young gang member had one of three possible meanings. One of those meanings was that the person with the tattoo had recently murdered a rival gang member. [page342]

[30] The Crown proposed to have Dr. Totten testify not only as to the three possible meanings of the teardrop tattoo, but also to answer a hypothetical question that would include factual assumptions eliminating the two other possible meanings. In effect, the Crown wanted Dr. Totten to testify that, based on his knowledge of gang culture and the Crown's assumptions (to be supported, presumably, by the evidence), the respondent's inscription of a teardrop tattoo meant that he had killed a rival gang member. In the context of the rest of the evidence, this could only mean that he had killed Mr. Peter.

[31] The Crown took a less ambitious alternative position, submitting that Dr. Totten should be permitted to at least identify the three possible meanings of the teardrop tattoo within the urban street-gang culture. It would then be left to the Crown to lead evidence that would permit the jury, if so inclined, to exclude the other two possibilities, leaving only the explanation that the respondent had killed a rival gang member. Crown counsel at trial expressed her alternative position in these terms:

> [T]he other position is that we would be asking Your Honour to also consider whether this gentleman can provide merely the definitions [explanations], because the definitions have been consistent throughout that there are, as he put it, three, though I see four. There is three; one of them is double-barrelled: loss of family member or a gang member has died; killed someone; or has spent time in prison.
>
> Whether that definition -- we will be asking Your Honour to consider whether just merely the definition can be left to the jury, and then it is for the jury, not usurping the jury's role, because then it is for the jury to decide whether they want to make the inferences that the Crown may ask them to make.

(Emphasis added)

(iii) The defence position

[32] The defence did not argue that the meaning of the teardrop tattoo was not properly the subject of expert evidence. Nor did the defence argue that Dr. Totten was not qualified to offer an opinion with respect to the meaning of a teardrop tattoo based on his study and knowledge of street gang culture. The defence submitted, however, that Dr. Totten's opinion concerning the meaning to be attributed to the respondent's teardrop tattoo was not sufficiently reliable to justify risking the potential prejudice to the trial process that could flow should his opinion be heard by the jury. In arguing that the potential probative value of the evidence was insufficient to risk the prejudice occasioned to the trial process, counsel stressed that Dr. Totten could not speak specifically to the meaning of the teardrop tattoo [page343] among members of the Malvern Crew. Counsel also emphasized that Dr. Totten's opinion could potentially be taken by the jury as determinative on the issue of identity, the only factual issue at trial.

(iv) Dr. Totten's evidence

[33] It is unnecessary to detail Dr. Totten's extensive and impressive academic, research and clinical credentials. The trial judge accepted that Dr. Totten was a "preeminent leader"

in his field -- the study of the culture of street gangs in Canada. The trial judge readily accepted that Dr. Totten's expertise could assist the trier of fact in understanding how gang members communicate. That expertise extended to the interpretation of tattoos, one of the symbols used by gang members to communicate with fellow gang members and with rival gangs.

[34] In his reports and testimony, Dr. Totten stated that it was his opinion that a teardrop tattoo on the face of a young male member of an urban street gang signified one of three things:

-- the death of a fellow gang member or family member of the wearer of the tattoo;
-- that the wearer of the tattoo had served a period of incarceration in a correctional facility; or
-- that the wearer of the tattoo had murdered a rival gang member.

[35] Dr. Totten testified, however, that the meaning of a tattoo worn by any particular individual was ultimately a personal matter. He said:

> In my opinion, and based on existing studies in the area, it is not possible to determine the meaning of a teardrop tattoo unless one spends a significant period of time with the person wearing the tattoo.
>
> What's important is to understand how he -- the meanings that he attaches to the tattoo. We can't impute motives. We can't assume that we know why the tattoo has been inscribed under the eye.
>
> So, if, for example, a researcher was merely to photograph people or just to use mug shots of offenders who had the tattoo, you can't -- you can't imply that the reason that these individuals got the tattoo was for "X". We know that there are at least three distinct possibilities.

(Emphasis added)

[36] This testimony echoes the comments in his January 3,

2007 report:

> This means that one cannot ascribe one meaning only to the tear drop tattoo worn by an individual without having access to other supporting data. It is [page344] not possible to just look at someone with this tattoo and verify the meaning without having specific information on the individual and his gang.

(Emphasis added)

[37] Dr. Totten based his opinion as to the possible meanings of a teardrop tattoo on data gathered through several research projects conducted over ten years, information gained through a 25-year clinical practice involving long-term relationships with gang members both in and out of custody, and his review of the relevant academic literature. Dr. Totten's research consisted of six different studies conducted between 1995 and 2005. These studies explored the day-to-day lives of gang members through detailed interviews with those who lived in that culture. The manner in which gang members communicated, including various symbols used, was one of the many aspects of gang culture explored in these studies. Questions about tattoos were a small part of a much wider range of questions. The broad purpose of the studies was to understand the urban street-gang world from the perspective of those who lived in that world.

[38] Each of the research studies involved long interview sessions with gang members who agreed to be interviewed by Dr. Totten and his fellow researchers. These interviews were recorded and the questioners took detailed notes. The accumulated data were examined and assessed by the researchers. Often, more than one researcher would examine the same data and their assessments would be compared. Dr. Totten used the information garnered from these interviews and assessments when asked by the Crown to offer an opinion as to the meaning of the teardrop tattoo on the respondent's face. None of this information was gathered for the purpose of offering an opinion for the Crown in a criminal proceeding.

[39] Dr. Totten described his research as qualitative and not quantitative. He explained that quantitative studies employ

large sample sizes, attempt to explore the strength of association between variables and establish generalizations applicable to populations beyond the study sample. Qualitative research depends on information gleaned from individuals through a carefully constructed interview process. In research involving cultural habits, knowledge gained through many individual interviews with persons who live within a given culture permits the researcher to come to conclusions about the meaning that members of that group or culture attribute to certain conduct or symbols.

[40] Dr. Totten indicated that in the fields of criminology, sociology and anthropology, there is a long-established tradition of excellent qualitative research into the culture and lifestyle of various groups, including street gangs. Dr. Totten referred to [page345] various well-recognized and accepted qualitative studies and reports on gang culture reaching back 80 years. Dr. Totten gave uncontradicted evidence to the effect that qualitative research techniques had been proven to yield excellent and reliable data "on the fine details of gang life". In his assessment, quantitative studies based on statistical inferences could not provide the same insight into those "fine details".

[41] Dr. Totten described at length the steps taken by him, and others in his field, to enhance the reliability of answers received from those interviewed during his studies. Several techniques were used to increase the reliability of the questioning process itself. Interviews followed a fixed and carefully formulated format. The language used in each question was selected using insight gained from the experience of prior studies and input from peer review of the proposed questions. Dr. Totten sought to remove anything from the questions that was suggestive of the answer, ambiguous or would not have a common meaning across a broad spectrum of interviewees.

[42] Dr. Totten also explained that answers given by interviewees were not simply accepted at face value. Answers were checked against reliable independent sources such as criminal records and police reports, a process called triangulation. If information from these outside sources was

inconsistent with the answers given, those answers were not accepted as accurate.

[43] Dr. Totten described at length a technique known as investigative discourse analysis. Applying that technique, an examination of the actual language used by an interviewee in his answers afforded insight into the veracity of those answers. Dr. Totten testified that this technique was well understood by him and other qualitative sociological researchers and that it had a long and well-established pedigree as a useful tool in his kind of research.

[44] Dr. Totten also explained that several prospective subjects were excluded from his studies because there were reasons to doubt the reliability of any answers they might give. Gang members suffering from mental disorders or severe drug abuse were not asked to participate in the studies. Gang members who had been charged with a homicide related offence and who were awaiting trial were excluded from the study on the basis that their legal status gave them a motive to be less than honest about any criminal activity in which they had engaged. About 45 gang members were excluded from the studies.

[45] Dr. Totten's six studies involved interviews with 300 gang members between the ages of 15 and 26. Roughly one-half were in custody. Ninety-seven of the gang members interviewed had [page346] been convicted of some form of homicide. Of that group, 71 had teardrop tattoos under one eye. Of the 203 not convicted of homicide, ten had teardrop tattoos under one eye. In total, 81 of the 300 gang members whose interviews were considered had a teardrop tattoo. All 71 gang members interviewed who had a teardrop tattoo and had also been convicted of a homicide related offence indicated that the teardrop tattoo signified that they had killed a rival gang member. The ten gang members who had a teardrop tattoo but had not been convicted of a homicide related offence explained that the tattoo meant they had served time in a correctional institution.

[46] Dr. Totten was questioned about the concept of peer review as it applied to his field of study. He acknowledged the

importance of peer review in sociological research. Dr. Totten testified that in addition to the efforts made to carefully select those interviewed and to produce questions that yielded reliable answers, his studies underwent extensive peer reviews at several levels. In any given study, the questions he intended to use to collect data and his proposed methodology were peer reviewed before conducting the study. A post-study peer review occurred if any of the collected data were proposed for publication. Co-authors, where studies involved Dr. Totten and another author, served as a means of peer review after the studies were completed. Finally, those studies commissioned by a government ministry were subject to careful review by officials within the commissioning ministry.

[47] While Dr. Totten insisted that concepts such as error rates and random sampling applied to quantitative scientific research and not to qualitative behavioural analysis, he agreed that concerns about the reliability of one's methodology and the validity of one's results were as germane to his work as the work of those engaged in quantitative research. However, in his view, given the very different nature of the research that he conducted as compared to quantitative research, different analytical tools than those used to assess quantitative research had to be used to assess the reliability of his methods and the validity of his results.

[48] Dr. Totten found confirmation for the data collected in his studies from his own clinical experience. In the course of a 25-year clinical practice, Dr. Totten had been involved in many long-term relationships with gang members. During those relationships, he had had many conversations with gang members who had teardrop tattoos and had discussed with them what those tattoos meant to them. The answers provided were consistent with the answers received in the studies conducted by Dr. Totten.

[49] The six studies conducted by Dr. Totten involved interviews with young male gang members in most of the major cities across [page347] Canada. His research was centered in Ottawa. He interviewed ten persons who were members of street gangs in Toronto. Dr. Totten did not interview any members of

the Malvern Crew.

[50] In cross-examination, Dr. Totten testified that his own experience and the academic literature suggested that the potential meanings of teardrop tattoos were not localized to any particular street gang, but cut across gang lines throughout North America. He pointed to his clinical experience, some of which occurred in Chicago, as support for this observation. Dr. Totten also indicated that his results were consistent with the results reported in American academic literature. He opined that there was "no evidence at all to suggest that it [the teardrop tattoo] is the property of one or a couple of street gangs".

[51] Dr. Totten was also questioned about the sample size of his studies. He explained that as his data came from six separate studies, including some 300 gang members, his sample size was much larger than the size commonly used for behavioural research involving street gangs.

[52] Dr. Totten was asked how long after a homicide the perpetrator would typically inscribe a tattoo on his cheek. Dr. Totten suggested that it could be between four months and a year after the homicide. He acknowledged that he could not be very specific and that there was "quite a range". He thought it would be unusual for a gang member to inscribe the teardrop soon after the homicide because by doing so he would identify himself to knowledgeable people, including the police, as the perpetrator. Dr. Totten did not refer to any specific parts of his studies or anything in the academic literature that directly addressed the amount of time that would pass after the homicide before the gang member who committed that homicide would have the teardrop tattoo inscribed on his face.

[53] Dr. Totten agreed in cross-examination that gang symbols, including teardrop tattoos, could be used by "wannabees" or "poseurs" who wished to appear to be part of a gang culture but in reality had nothing to do with gangs, much less with the murder of rival gang members. Dr. Totten thought this an unlikely explanation for the respondent's teardrop tattoo in that he was an acknowledged member of the

Malvern Crew and, as a result of this membership, he would be exposed to attack by other gang members if he inscribed a teardrop tattoo on his face and had not "earned" that tattoo.

[54] Dr. Totten also agreed that the meanings of gang symbols, including tattoos, were subject to change: as those outside of the gang world became aware of and adopted gang symbols into [page348] parts of the mainstream culture, the meaning of those same symbols was lost or changed within the gang culture.

(v) The trial judge's reasons [See Note 5 below]

[55] The trial judge began his reasons by reference to the criteria governing the admissibility of expert opinion evidence. He quickly disposed of the criteria that were not in dispute before him. He accepted, as did defence counsel, that Dr. Totten's opinion was logically relevant to the identification of the respondent as the killer (at para. 45). Likewise, the trial judge accepted that Dr. Totten was properly qualified to give an opinion on aspects of gang culture, including the meaning of tattoos, and that this was a subject matter that was appropriate for expert evidence by a properly qualified expert (at paras. 13-15, 34). Finally, although the trial judge did not expressly address this issue, there was no exclusionary rule apart from the rule governing the admissibility of expert opinion evidence barring the admissibility of Dr. Totten's opinion. Having disposed of the non-contentious issues, the trial judge turned his attention to the reliability of Dr. Totten's opinion. The trial judge appreciated that his role as "gatekeeper" required that he determine whether that evidence was sufficiently reliable to warrant its consideration by the jury. He found that it was not.

[56] The trial judge gave many reasons for rejecting Dr. Totten's evidence as insufficiently reliable. Several are summarized near the beginning of his reasons, at para. 4:

> Based on the evidence, I am not satisfied that Dr. Totten's opinion is reliable. First, Dr. Totten's qualitative research is used to make specific quantitative conclusions. Second, he

> cannot provide an error rate for his analysis. Third, I have concerns about the small size of his study sample and its composition. Fourth, his opinions clash with authoritative texts in the field. Fifth, his attempts at verifying the "truth-status" of his interview subjects are suspect. Sixth, his own conclusions are internally inconsistent -- he often vacillated on the issues of whether the teardrop tattoo meaning was regional or universal, and whether the meaning could be generalized to individuals outside his study. Seventh, he did not interview any members of the Malvern Crew -- the very gang of which the accused is a member. Eighth, Dr. Totten's theories with respect to the meaning of the teardrop are rare, and have never been peer-reviewed or published.

[57] The trial judge found that the evidence was unreliable because, in addition to the reasons set out in the above passage, [page349] it was not based on proven facts (at para. 46) and did not take into account the possibility that the meaning of the teardrop tattoo could change in time (at para. 70) or the possibility that a "poseur" or "wannabee" may inscribe the tattoo "as some kind of fad" (at para. 66).

[58] The trial judge also characterized Dr. Totten's opinion concerning the meaning of the tattoo as "a novel scientific theory". Having so characterized his opinion, the trial judge, applying binding authority, subjected Dr. Totten's evidence to a more rigorous threshold reliability inquiry than would be the case if his opinion was not regarded as involving a novel scientific theory. However, it would seem from the trial judge's reasons that he would have excluded Dr. Totten's evidence even on the lower threshold reliability requirement applicable to expert opinion evidence that does not involve a novel scientific theory (at para. 92).

[59] Despite the many reasons advanced by the trial judge for rejecting Dr. Totten's evidence, it would appear that had Dr. Totten's studies and clinical work included members of the Malvern Crew, the trial judge would have admitted his evidence (at para. 12). In the course of explaining four possible ways in which the Crown could have adduced admissible expert

evidence, the trial judge said, at para. 9:

> The third possible way would be through a sociologist, criminologist, or psychologist with specific experience of the Malvern Crew.

(vi) Analysis

[60] The admissibility of Dr. Totten's opinion as to the meaning of the respondent's teardrop tattoo raised a difficult evidentiary problem for the trial judge. On the one hand, gang culture and the murderous violence it promotes were unavoidably central features of the factual matrix of this trial. On the other hand, the respondent could only be properly convicted if the Crown could prove his personal criminal responsibility in Mr. Peter's death. The respondent could not be convicted on the basis of his involvement in a violent gang culture. In ruling on the admissibility of Dr. Totten's evidence, the trial judge had to steer a course that would at once equip the jury with all relevant, reliable information available and needed to arrive at a correct verdict, while avoiding exposure to information that could invite a verdict based on the jury's understandably negative reaction to those who were part of the gang culture: see R. v. J. (J.), [2000] 2 S.C.R. 600, [2000] S.C.J. No. 52, at para. 61.

[61] With respect, I think the trial judge, whose reasons reveal a detailed consideration of the issues raised by Dr. Totten's proposed [page350] evidence, erred in excluding Dr. Totten's evidence in its entirety. Before turning to the errors in his analysis, I will address the general principles governing the admissibility of this kind of evidence. I propose to outline an approach that I suggest may be helpful when assessing admissibility. In doing so, I do not depart from the controlling jurisprudence of the Supreme Court of Canada. Nor do I intend to suggest that the admissibility of expert opinion evidence should always be approached in the same way.

(a) Delineating the scope of the expert's opinion

[62] The admissibility inquiry is not conducted in a vacuum. Before deciding admissibility, a trial judge must determine the

nature and scope of the proposed expert evidence. In doing so, the trial judge sets not only the boundaries of the proposed expert evidence but also, if necessary, the language in which the expert's opinion may be proffered so as to minimize any potential harm to the trial process. A cautious delineation of the scope of the proposed expert evidence and strict adherence to those boundaries, if the evidence is admitted, are essential. The case law demonstrates that overreaching by expert witnesses is probably the most common fault leading to reversals on appeal: see, for example, R. v. Ranger (2003), 67 O.R. (3d) 1, [2003] O.J. No. 3479 (C.A.); R. v. Klymchuk, [2005] O.J. No. 5094, 203 C.C.C. (3d) 341 (C.A.); R. v. K. (A.) (1999), 45 O.R. (3d) 641, [1999] O.J. No. 3280 (C.A.), at paras. 123-35; R. v. Llorenz, [2000] O.J. No. 1885, 145 C.C.C. (3d) 535 (C.A.), at paras. 33-40.

[63] A determination of the scope of the proposed expert opinion evidence and the manner in which it may be presented to the jury if admissible will be made after a voir dire. The procedures to be followed on that voir dire are for the trial judge to decide. Sometimes the expert must be examined and cross-examined on the voir dire to ensure that the proposed evidence is properly understood. At the conclusion of the voir dire, the trial judge must identify with exactitude the scope of the proposed opinion that may be admissible. He or she will also decide whether certain terminology used by the expert is unnecessary to the opinion and potentially misleading: see R. v. G. (P.), [2009] O.J. No. 121, 242 C.C.C. (3d) 558 (C.A.), at para. 16. Admissibility is not an all or nothing proposition. [See Note 6 below] Nor is the trial judge limited to [page351] either accepting or rejecting the opinion evidence as tendered by one party or the other. The trial judge may admit part of the proffered testimony, modify the nature or scope of the proposed opinion, or edit the language used to frame that opinion: see, for example, R. v. Wilson, [2002] O.J. No. 2598, 166 C.C.C. (3d) 294 (S.C.J.).

[64] The importance of properly defining the limits and nature of proposed expert opinion evidence and the language to be used by the expert is one of the valuable lessons learned from the Inquiry into Pediatric Forensic Pathology in Ontario. [See Note

7 below] That inquiry examined the forensic work of Dr. Charles Smith, who at the time was considered to be a leading pediatric pathologist in Ontario. The inquiry determined that, among other failings, Dr. Smith often went beyond the limits of his expertise when offering opinions in his testimony. His excesses were sometimes not caught by the court or counsel and, along with other shortcomings, led to several miscarriages of justice. Goudge J.A., the Commissioner, stressed the trial judge's obligation to take an active role in framing the scope and the language of the proposed expert opinion evidence. He observed, at pp. 499-500:

> A final outcome from the admissibility process is a clear definition of the scope of the expertise that a particular witness is qualified to give. As discussed in the earlier part of this chapter, it will be beneficial to define the range of expertise with as much precision as possible so that all the parties and the witness are alerted to areas where the witness has not been qualified to give evidence. . . . As I earlier recommended, the trial judge should take steps at the outset to define clearly the proposed subject area of the witness's expertise. At the conclusion of the voir dire, the trial judge will be well situated to rule with precision on what the witness can and cannot say. These steps will help to ensure that the witness's testimony, when given, can be confined to permissible areas and that it meets the requirement of threshold reliability.

(Emphasis added)

[65] The present case affords an example of the problem that can ensue when the proffered expert opinion evidence is not properly circumscribed. In its primary position, the Crown contended that Dr. Totten's opinion could be put before the jury in the form of a hypothetical, which, as the trial judge accurately observed, was "tantamount to a confession" (at para. 92). The [page352] Crown's proposed formulation of Dr. Totten's evidence drew a straight and powerful line between the jury's acceptance of his opinion and the conviction of the respondent on a charge of first degree murder. As advanced by the Crown in its primary position, Dr. Totten's evidence reads less like the opinion of a sociologist on the meaning of a symbol used in a

certain culture and more like evidence from a factual witness offering identification testimony: see United States of America v. Mejia, 545 F.3d 179 (2nd Cir. 2008), at pp. 195-96.

[66] In his reasons, the trial judge acknowledged both the primary and alternative positions advanced by the Crown, but in his analysis focussed almost entirely on the Crown's primary position. For example, very early in his analysis (at para. 25), he summarized Dr. Totten's proposed evidence in these terms:

> Dr. Totten concluded that Mr. Abbey's tattoo was related to the murder of a rival gang member in 2004.

[67] References to Dr. Totten's evidence going directly to the meaning of the respondent's tattoo are found throughout the reasons. In the concluding paragraph (at para. 96), the trial judge said:

> It would be an error to allow Dr. Totten to testify to the potential meanings of the teardrop tattoo on Mr. Abbey's face and to present a ready-made inference concerning it to the jury.

The close and strong connection urged by the Crown between Dr. Totten's opinion and the ultimate issue of identification quite properly caused the trial judge to be concerned that if admitted, Dr. Totten's evidence could usurp the jury's fact-finding role on the ultimate issue in the trial: R. v. Mohan, [1994] 2 S.C.R. 9, [1994] S.C.J. No. 36, at p. 24 S.C.R.

[68] The Crown's attempt to link directly Dr. Totten's opinion to the identity of the respondent as the killer misconceived the true nature of Dr. Totten's opinion and the role he could legitimately play in assisting the jury. His report and his evidence made it clear that he could not speak to the reason the respondent placed a teardrop tattoo on his face. Dr. Totten could speak to the culture within urban street gangs in Canada and specifically the potential meanings to be taken from the inscription of a teardrop tattoo on the face of a young male member of that culture. Dr. Totten's evidence was directed to the potential meanings attributed to that symbol

within a given culture and not to the reason any particular individual placed a tattoo on his face. Properly understood, Dr. Totten's opinion provided context within which to assess other evidence that the jury would hear, thereby assisting the jury in making its own assessment as to [page353] the meaning, if any, to be given to the respondent's teardrop tattoo: see David M. Paciocco and Lee Stuesser, The Law of Evidence, 5th ed. (Toronto: Irwin Law, 2008), at p. 209; Melvin M. Mark, "Social Science Evidence in the Courtroom: Daubert and Beyond?" (1999), 5 Psychol. Pub. Pol'y & L. 175, at p. 187, n. 7.

[69] The Crown's secondary position on the voir dire was described by the trial judge in these terms, at para. 28:

> . . . Dr. Totten's evidence could be limited to the introduction alone of the possible meanings for the tattoo without providing his analysis of the specific meaning attributable to Mr. Abbey's tattoo.

[70] This secondary position reflects the proper limits of the opinion that Dr. Totten could properly advance. Phrased in this manner, his opinion did not go directly to the ultimate issue of identity and did not invite the jury to move directly from acceptance of the opinion to a finding of guilt. Dr. Totten's opinion, as properly delineated, would form part of a larger evidentiary picture to be evaluated as a whole by the jury.

(b) The applicable principles and a suggested approach to admissibility

[71] It is fundamental to the adversary process that witnesses testify to what they saw, heard, felt or did, and the trier of fact, using that evidentiary raw material, determines the facts. Expert opinion evidence is different. Experts take information accumulated from their own work and experience, combine it with evidence offered by other witnesses, and present an opinion as to a factual inference that should be drawn from that material. The trier of fact must then decide whether to accept or reject the expert's opinion as to the appropriate factual inference. Expert evidence has the real

potential to swallow whole the fact-finding function of the court, especially in jury cases. Consequently, expert opinion evidence is presumptively inadmissible. The party tendering the evidence must establish its admissibility on the balance of probabilities: Paciocco and Stuesser, at pp. 184, 193; Hon. Jus. S. Casey Hill, David M. Tanovich and Louis P. Strezos, McWilliams' Canadian Criminal Evidence, 4th ed., looseleaf (Aurora, Ont.: Canada Law Book, 2009), at para. 12:30.10.

[72] The increased reliance on expert opinion evidence by both the Crown and defence in criminal matters is evident upon even a cursory review of the reported cases. Sometimes it seems that a deluge of experts has descended on the criminal courts ready to offer definitive opinions to explain almost anything. Expert evidence is particularly prevalent where inferences must be [page354] drawn from a wide variety of human behaviour: see, for example, R. v. McIntosh (1997), 35 O.R. (3d) 97, [1997] O.J. No. 3172 (C.A.), at pp. 101-103 O.R., leave to appeal to S.C.C. refused R. v. McCarthy, [1998] 1 S.C.R. xii, [1997] S.C.C.A. No. 610 (leave sought by second appellant in McIntosh, Mr. McCarthy); David M. Paciocco, "Coping With Expert Evidence About Human Behaviour" (1999) 25 Queen's L.J. 305, at pp. 307-308; S. Casey Hill et al., at para. 12:30.10; R. v. Olscamp, [1994] O.J. No. 2926, 95 C.C.C. (3d) 466 (Gen. Div.), approved in R. v. L. (E.A.), [1998] O.J. No. 4160, 130 C.C.C. (3d) 438 (C.A.), at para. 24; Ontario, Report of the Kaufman Commission on Proceedings Involving Guy Paul Morin, vol. 1 (Toronto: Queen's Printer, 1998), at pp. 311-24. As Moldaver J.A. put it in R. v. Clark (2004), 69 O.R. (3d) 321, [2004] O.J. No. 195 (C.A.), at para. 107, a case involving the proposed expert evidence of a criminal profiler:

> Combined, these two concerns [giving expert evidence more weight than it deserves and accepting expert evidence without subjecting it to the scrutiny it requires] raise the spectre of trial by expert as opposed to trial by jury. That is something that must be avoided at all costs. The problem is not a new one but in today's day and age, with proliferation of expert evidence, it poses a constant threat. Vigilance is required to ensure that expert witnesses like Detective Inspector Lines are not allowed to hijack the trial and usurp

the function of the jury.
(Emphasis added)

[73] Despite justifiable misgivings, expert opinion evidence is, of necessity, a mainstay in the litigation process. Put bluntly, many cases, including very serious criminal cases, could not be tried without expert opinion evidence. The judicial challenge is to properly control the admissibility of expert opinion evidence, the manner in which it is presented to the jury and the use that the jury makes of that evidence.

[74] The current approach to the admissibility of expert opinion evidence was articulated by Sopinka J. in Mohan. Broadly speaking, Mohan replaced what had been a somewhat laissez faire attitude toward the admissibility of expert opinion evidence with a principled approach that required closer judicial scrutiny of the proffered evidence. After Mohan, trial judges were required to assess the potential value of the evidence to the trial process against the potential harm to that process flowing from admission.

[75] The four criteria controlling the admissibility of expert opinion evidence identified in Mohan have achieved an almost canonical status in the law of evidence. No judgment on the topic seems complete without reference to them. The four criteria are:

-- relevance; [page355]
-- necessity in assisting the trier of fact;
-- the absence of any exclusionary rule; and
-- a properly qualified expert.

[76] Using these criteria, I suggest a two-step process for determining admissibility. First, the party proffering the evidence must demonstrate the existence of certain preconditions to the admissibility of expert evidence. For example, that party must show that the proposed witness is qualified to give the relevant opinion. Second, the trial judge must decide whether expert evidence that meets the preconditions to admissibility is sufficiently beneficial to the trial process to warrant its admission despite the potential harm to the trial process that may flow from the

admission of the expert evidence. This "gatekeeper" component of the admissibility inquiry lies at the heart of the present evidentiary regime governing the admissibility of expert opinion evidence: see Mohan; R. v. D. (D.), [2000] 2 S.C.R. 275, [2000] S.C.J. No. 44; J. (J.); R. v. Trochym, [2007] 1 S.C.R. 239, [2007] S.C.J. No. 6; K. (A.); Ranger; R. v. Osmar (2007), 84 O.R. (3d) 321, [2007] O.J. No. 244 (C.A.), leave to appeal to S.C.C. refused (2007), 85 O.R. (3d) xviii, [2007] S.C.C.A. No. 157.

[77] I appreciate that Mohan does not describe the admissibility inquiry as a two-step process. It does not distinguish between what I refer to as the preconditions to admissibility and the trial judge's exercise of the "gatekeeper" function. My description of the process as involving two distinct phases does not alter the substance of the analysis required by Mohan. In suggesting a two-step approach, I mean only to facilitate the admissibility analysis and the application of the Mohan criteria.

[78] It is helpful to distinguish between what I describe as the preconditions to admissibility of expert opinion evidence and the performance of the "gatekeeper" function because the two are very different. The inquiry into compliance with the preconditions to admissibility is a rules-based analysis that will yield "yes" or "no" answers. Evidence that does not meet all of the preconditions to admissibility must be excluded and the trial judge need not address the more difficult and subtle considerations that arise in the "gatekeeper" phase of the admissibility inquiry.

[79] The "gatekeeper" inquiry does not involve the application of bright line rules, but instead requires an exercise of judicial discretion. The trial judge must identify and weigh competing considerations to decide whether on balance those considerations favour the admissibility of the evidence. This cost-benefit analysis is case-specific and, unlike the first phase of the admissibility [page356] inquiry, often does not admit of a straightforward "yes" or "no" answer. Different trial judges, properly applying the relevant principles in the exercise of their discretion, could in some situations come to

different conclusions on admissibility.

[80] In what I refer to as the first phase, four preconditions to admissibility must be established, none of which were in dispute at trial:

-- the proposed opinion must relate to a subject matter that is properly the subject of expert opinion evidence;
-- the witness must be qualified to give the opinion;
-- the proposed opinion must not run afoul of any exclusionary rule apart entirely from the expert opinion rule; and
-- the proposed opinion must be logically relevant to a material issue.

[81] For the purpose of explaining the analytic distinction I draw between the preconditions to admissibility and the "gatekeeper" function, I need not address the first three preconditions. The relevance criterion, however, does require some explanation. Relevance is one of the four Mohan criteria. However, I use the word differently than Sopinka J. used it in Mohan.

[82] Relevance can have two very different meanings in the evidentiary context. Relevance can refer to logical relevance, a requirement that the evidence have a tendency as a matter of human experience and logic to make the existence or non-existence of a fact in issue more or less likely than it would be without that evidence: J. (J.), at para. 47. Given this meaning, relevance sets a low threshold for admissibility and reflects the inclusionary bias of our evidentiary rules: see R. v. Clarke, [1998] O.J. No. 3521, 129 C.C.C. (3d) 1 (C.A.), at p. 12 C.C.C. Relevance can also refer to a requirement that evidence be not only logically relevant to a fact in issue, but also sufficiently probative to justify its admission despite the prejudice that may flow from its admission. This meaning of relevance is described as legal relevance and involves a limited weighing of the costs and benefits associated with admitting evidence that is undoubtedly logically relevant: see Paciocco and Stuesser, at pp. 30-35.

[83] The relevance criterion for admissibility identified in Mohan refers to legal relevance. To be relevant, the evidence

must not only be logically relevant but must be sufficiently probative to justify admission: see Mohan, at pp. 20-21 S.C.R.; K. (A.), at paras. 77-89; Paciocco and Stuesser, at pp. 198-99. [page357]

[84] When I speak of relevance as one of the preconditions to admissibility, I refer to logical relevance. I think the evaluation of the probative value of the evidence mandated by the broader concept of legal relevance is best reserved for the "gatekeeper" phase of the admissibility analysis. Evidence that is relevant in the sense that it is logically relevant to a fact in issue survives to the "gatekeeper" phase where the probative value can be assessed as part of a holistic consideration of the costs and benefits associated with admitting the evidence. Evidence that does not meet the logical relevance criterion is excluded at the first stage of the inquiry: see, e.g., R. v. Dimitrov (2003), 68 O.R. (3d) 641, [2003] O.J. No. 5243 (C.A.), at para. 48, leave to appeal to S.C.C. refused (2004), 70 O.R. (3d) xvii, [2004] S.C.C.A. No. 59.

[85] My separation of logical relevance from the cost-benefit analysis associated with legal relevance does not alter the criteria for admissibility set down in Mohan or the underlying principles governing the admissibility inquiry. I separate logical from legal relevance simply to provide an approach which focuses first on the essential prerequisites to admissibility and second, on all of the factors relevant to the exercise of the trial judge's discretion in determining whether evidence that meets those preconditions should be received.

[86] As indicated above, it was not argued that Dr. Totten's evidence did not meet the preconditions to admissibility. Nor is it suggested that it was not logically relevant to identity, a fact in issue. The battle over the admissibility of his evidence was fought at the "gatekeeper" stage of the analysis. At that stage, the trial judge engages in a case-specific cost-benefit analysis.

[87] The "benefit" side of the cost-benefit evaluation requires a consideration of the probative potential of the

evidence and the significance of the issue to which the evidence is directed. When one looks to potential probative value, one must consider the reliability of the evidence. Reliability concerns reach not only the subject matter of the evidence, but also the methodology used by the proposed expert in arriving at his or her opinion, the expert's expertise and the extent to which the expert is shown to be impartial and objective. [See Note 8 below] [page358]

[88] Assessment of the reliability of proffered expert evidence has become the focus of much judicial attention, particularly where the expert advances what is purported to be scientific opinion: see, for example, Daubert v. Merrell Dow Pharmaceuticals Inc., 509 U.S. 579, 113 S. Ct. 2786 (1993); J. (J.), at paras. 33-37; S. Casey Hill et al., at para. 12:30.20.30; Bruce D. Sales and Daniel W. Shuman, Experts in Court Reconciling Law, Science, and Professional Knowledge (Washington, D.C.: American Psychological Association, 2005).

[89] In assessing the potential benefit to the trial process flowing from the admission of the evidence, the trial judge must intrude into territory customarily the exclusive domain of the jury in a criminal jury trial. The trial judge's evaluation is not, however, the same as the jury's ultimate assessment. The trial judge is deciding only whether the evidence is worthy of being heard by the jury and not the ultimate question of whether the evidence should be accepted and acted upon.

[90] The "cost" side of the ledger addresses the various risks inherent in the admissibility of expert opinion evidence, described succinctly by Binnie J. in J. (J.), at para. 47 as "consumption of time, prejudice and confusion". Clearly, the most important risk is the danger that a jury will be unable to make an effective and critical assessment of the evidence. The complexity of the material underlying the opinion, the expert's impressive credentials, the impenetrable jargon in which the opinion is wrapped and the cross-examiner's inability to expose the opinion's shortcomings may prevent an effective evaluation of the evidence by the jury. There is a risk that a jury faced with a well-presented firm opinion may abdicate its fact-

finding role on the understandable assumption that a person labelled as an expert by the trial judge knows more about his or her area of expertise than do the individual members of the jury: J. (J.), at para. 25.

[91] In addition to the risk that the jury will yield its fact-finding function, expert opinion evidence can also compromise the trial process by unduly protracting and complicating proceedings. Unnecessary and excessive resort to expert evidence can also give a distinct advantage to the party with the resources to hire the most and best experts -- often the Crown in a criminal proceeding.

[92] All of the risks described above will not inevitably arise in every case where expert evidence is offered. Nor will the risks have the same force in every case. For example, in this case, I doubt that the jury would have difficulty critically evaluating Dr. Totten's opinion. There was nothing complex or obscure about his methodology, the material he relied on in forming his [page359] opinion or the language in which he framed and explained his opinion. As when measuring the benefits flowing from the admission of expert evidence, the trial judge as "gatekeeper" must go beyond truisms about the risks inherent in expert evidence and come to grips with those risks as they apply to the particular circumstances of the individual case.

[93] The cost-benefit analysis demands a consideration of the extent to which the proffered opinion evidence is necessary to a proper adjudication of the fact(s) to which that evidence is directed. In Mohan, Sopinka J. describes necessity as a separate criterion governing admissibility. I see the necessity analysis as a part of the larger cost-benefit analysis performed by the trial judge. In relocating the necessity analysis, I do not, however, depart from the role assigned to necessity by the Mohan criteria.

[94] It seems self-evident that an expert opinion on an issue that the jury is fully equipped to decide without that opinion is unnecessary and should register a "zero" on the "benefit" side of the cost-benefit scale. Inevitably, expert opinion

evidence that brings no added benefit to the process will be excluded: see, for example, R. v. Batista, [2008] O.J. No. 4788, 238 C.C.C. (3d) 97 (C.A.), at paras. 45-47; R. v. Nahar, [2004] B.C.J. No. 278, 181 C.C.C. (3d) 449 (C.A.), at paras. 20-21. Opinion evidence that is essential to a jury's ability to understand and evaluate material evidence will register high on the "benefit" side of the scale. However, the ultimate admissibility of the opinion, even where it is essential, will depend on not only its potential benefit, but on the potential prejudice to the trial process associated with its admission.

[95] In many cases, the proffered opinion evidence will fall somewhere between the essential and the unhelpful. In those cases, the trial judge's assessment of the extent to which the evidence could assist the jury will be one of the factors to be weighed in deciding whether the benefits flowing from admission are sufficiently strong to overcome the costs associated with admission. In addressing the extent to which the opinion evidence is necessary, the trial judge will have regard to other facets of the trial process --such as the jury instruction -- that may provide the jury with the tools necessary to adjudicate properly on the fact in issue without the assistance of expert evidence: D. (D.), at para. 33; R. v. Bonisteel, [2008] B.C.J. No. 1705, 236 C.C.C. (3d) 170 (C.A.), at para. 69.

[96] It is unnecessary to explore the necessity requirement in any greater detail. The trial judge appears to have accepted defence counsel's concession that Dr. Totten's evidence was necessary in the sense that the meaning of a teardrop tattoo was outside of the ordinary knowledge of a Toronto juror (at para. 34). [page360]

(c) Application of the principles to this case

[97] The trial judge's decision to exclude Dr. Totten's evidence was the product of his cost-benefit analysis. That assessment is entitled to deference on appeal: D. (D.), at para. 13; Bonisteel, at para. 70. In my view, however, the trial judge made five legal errors in his analysis. First, he did not properly delineate the nature and scope of Dr. Totten's evidence before addressing its admissibility. Second, in

testing the reliability of Dr. Totten's proposed opinion evidence, the trial judge relied almost exclusively on concepts and criteria that were inappropriate to the assessment of the reliability of Dr. Totten's opinion while failing to consider the criteria that were relevant. Third, in examining the methods used by Dr. Totten to enhance the reliability of his opinion, the trial judge imposed too high a standard of reliability, misapprehended parts of Dr. Totten's evidence and considered evidence that was irrelevant to the reliability of the opinion. Fourth, in assessing the reliability of Dr. Totten's opinion, the trial judge went beyond questions of threshold reliability and considered features of Dr. Totten's evidence that should have been left to the jury in their ultimate assessment of that evidence. Fifth, the trial judge erred in holding that because Dr. Totten's opinion had not been peer reviewed, it followed that his opinion was not based on proven facts and could not be admitted into evidence.

(d) The nature and scope of Dr. Totten's evidence

[98] I outlined Dr. Totten's evidence above (see Part III (iv)). The trial judge directed virtually the entirety of his admissibility analysis to the Crown's primary position, which would have had Dr. Totten testifying as to the meaning of the respondent's teardrop tattoo. I have already indicated that position was not consistent with the substance of Dr. Totten's evidence or his reports. Dr. Totten could not speak directly to the reasons the respondent had put a teardrop tattoo on his face. But, he could offer an opinion based on his research, clinical experience and review of the relevant literature as to the meaning ascribed to a teardrop tattoo within the urban street-gang culture, a community to which the respondent admittedly belonged. The Crown's alternative position was consistent with the scope of Dr. Totten's evidence and expertise.

[99] The difference between an opinion on why the respondent put the teardrop tattoo on his face and an opinion on the meanings of that symbol in the street gang culture in which the respondent lived is much more than semantical. The former speaks directly to the issue of the murderer's identity. That opinion, if [page361] heard, invites the jury to move directly

from accepting Dr. Totten's evidence to a finding of guilt. The latter opinion speaks on a much more general level and provides context in which the evidence of other witnesses, who can speak more directly to the facts of the case, can be placed and assessed.

[100] The distinction between the proper scope of Dr. Totten's evidence and the scope as primarily advanced by the Crown and considered by the trial judge is not unlike the distinction drawn in K. (A.). In that case, Charron J.A. dealt with expert evidence relating to the behaviour of children who had allegedly been abused. As she explained, the experts in that case could not testify that certain features of a child's behaviour demonstrated that the child had been abused. In other words, the experts could not forge a direct link between their observations and prior abuse of the complainant. However, those experts could testify for the limited purpose of explaining that certain kinds of behaviour have been commonly observed in victims of child abuse. That kind of expert evidence was admissible because it provided the jury with a more complete picture when assessing the entirety of the evidence and, in particular, when deciding what inferences or conclusions should be drawn from the post-event behaviour of the complainants: see, also, R. v. Bernardo, [1995] O.J. No. 2249, 42 C.R. (4th) 96 (Gen. Div.); R. v. F. (D.S.) (1999), 43 O.R. (3d) 609, [1999] O.J. No. 688, 132 C.C.C. (3d) 97 (C.A.), at paras. 50-52.

[101] The trial judge, no doubt influenced by the Crown's primary position, failed to properly limit the scope of Dr. Totten's opinion. He addressed the question of admissibility on the assumption that Dr. Totten would speak directly to the reason the respondent had put a teardrop tattoo on his face. The trial judge's only reference to the merits of the Crown's alternative position in the course of his 96-paragraph decision appears in the last sentence of the last paragraph where he states "the same reliability concerns are present in either form of the proposed expert evidence".

[102] I disagree with this assessment. Had the trial judge limited Dr. Totten's opinion to the potential meanings of the

tattoo within the street gang culture, Dr. Totten would not have testified about the meaning of the respondent's tattoo. His evidence could not be described as "tantamount to a confession" (at para. 1). Nor would Dr. Totten's evidence "present a ready-made inference concerning it [the meaning of the tattoo]" (at para. 96).

[103] Properly limited, Dr. Totten's evidence took a first, albeit important, step toward establishing the Crown's position that the respondent's teardrop tattoo signified that he had killed Mr. Peter. Standing alone, however, the evidence could not make [page362] the Crown's case with respect to the meaning of the tattoo. I see no significant risk that the jury, having heard Dr. Totten's opinion in its properly limited form, would have moved directly from accepting that opinion to a conviction of the respondent. One must bear in mind that if Dr. Totten's evidence was admitted, he would have been cross-examined. No doubt, his ready acknowledgement that he could not speak directly to the respondent's reasons for putting a tattoo on his face would be front and centre in that cross-examination. Had the trial judge limited the scope of Dr. Totten's evidence along the lines proposed by the Crown in its alternative position, the cost-benefit analysis required by the case law may well have yielded a different result.

(e) Assessing the reliability of Dr. Totten's opinion

(1) The Daubert factors are not applicable

[104] During Dr. Totten's evidence and the argument following his evidence, the trial judge continually referred to the reliability factors identified in Daubert, the leading American authority, which is approvingly referred to in the Supreme Court of Canada's decision in J. (J.). In numerous lengthy dialogues with Crown counsel, the trial judge repeatedly challenged the Crown to establish the reliability of Dr. Totten's opinion using the Daubert factors. Those factors include the existence of measurable error rates, peer review of results, the use of random sampling and the ability of the tester to replicate his or her results.

[105] In his reasons for excluding Dr. Totten's evidence, the trial judge treated the evidence as advancing a "novel

scientific theory" (at para. 38) put forward to "scientifically prove that Mr. Abbey's tattoo means he killed Simeon Peter" (at para. 92). Having set Dr. Totten's opinion up as a scientific theory, the trial judge then tested the reliability of that theory as if it had been put forward as the product of an inquiry based on the scientific method. The trial judge's reasons are replete with references to the absence of error rates (at paras. 56-59, 62-64), the failure to use random sampling (at paras. 56-59), the absence of peer review of Dr. Totten's conclusions (at para. 78) and the absence of any attempt to replicate Dr. Totten's findings (at para. 78). It is clear that the trial judge viewed the absence of the factors identified in Daubert as fatal to the reliability of Dr. Totten's evidence. He said, at para. 78:

> Without evidence on the rate of error, a peer review of his conclusions, or the replication of his findings, I am not satisfied that Dr. Totten's conclusion is not flawed. [page363]

[106] The extent to which the Daubert factors dominated the trial judge's reliability analysis can be seen in the following passage from his reasons (at para. 56):

> One of the problems with accepting his methodology is that the common indicia of reliable, replicable, scientific studies are not present (nor could they be according to Dr. Totten) in his qualitative research. In order to generalize and extrapolate Dr. Totten's findings, or use his theory as a diagnostic tool, I should have some knowledge about the statistical probability of the accuracy of his conclusions. To that end, his conclusions should be tested by applying them to a random sample of the population of street gangs who wear teardrop tattoos to see if his conclusion can be falsified.

(Emphasis added)

[107] This passage mischaracterizes Dr. Totten's evidence as presenting a "theory" to be used as a "diagnostic tool". This language, taken from the leading authority of J. (J.), does not fit Dr. Totten's evidence. I also do not understand the meaning

of the reference to "random samples of the population of street gangs who wear teardrop tattoos". The persons interviewed by Dr. Totten were randomly selected in the sense that he did not seek out particular gang members. They were not randomly selected in the sense that Dr. Totten specifically excluded persons who had a strong motive to mislead him. It may be that the trial judge was simply saying that Dr. Totten's conclusions could have been tested through additional interviews with more street gang members from different gangs all of whom had teardrop tattoos. One cannot disagree that interviews with more gang members who had teardrop tattoos would have assisted in weighing Dr. Totten's opinion. However, that process is not the same as the process of random sampling as that term is used in the application of the scientific method.

[108] It is not surprising that Dr. Totten's opinion could not pass scientific muster. While his research, and hence his opinion, could be regarded as scientific in the very broad sense of that word, as used in McIntosh, Dr. Totten did not pretend to employ the scientific method and did not depend on adherence to that methodology for the validity of his conclusions. As his opinion was not the product of scientific inquiry, its reliability did not rest on its scientific validity. Dr. Totten's opinion flowed from his specialized knowledge gained through extensive research, years of clinical work and his familiarity with the relevant academic literature. It was unhelpful to assess Dr. Totten's evidence against factors that were entirely foreign to his methodology. As Professors Sales and Shuman put it in their text, Experts in Court: Reconciling Law, Science, and Professional Knowledge, at pp. 74-75: "[f]or non-scientific expert testimony, scientific validity is an oxymoron". [page364]

[109] Scientific validity is not a condition precedent to the admissibility of expert opinion evidence. Most expert evidence routinely heard and acted upon in the courts cannot be scientifically validated. For example, psychiatrists testify to the existence of various mental states, doctors testify as to the cause of an injury or death, accident reconstructionists testify to the location or cause of an accident, economists or rehabilitation specialists testify to future employment

prospects and future care costs, fire marshals testify about the cause of a fire, professionals from a wide variety of fields testify as to the operative standard of care in their profession or the cause of a particular event. Like Dr. Totten, these experts do not support their opinions by reference to error rates, random samplings or the replication of test results. Rather, they refer to specialized knowledge gained through experience and specialized training in the relevant field. To test the reliability of the opinion of these experts and Dr. Totten using reliability factors referable to scientific validity is to attempt to place the proverbial square peg into the round hole. [See Note 9 below]

[110] Tested exclusively against the Daubert factors, much of the expert evidence routinely accepted and acted upon in courts would be excluded despite its obvious reliability and value to the trial process. However, Daubert does not suggest that the factors it proposes are essential to the reliability inquiry. Instead, Daubert, at p. 594 U.S., describes that inquiry as "a flexible one". This flexibility was subsequently emphasized in Kumho Tire Co. v. Carmichael, 526 U.S. 137, 119 S. Ct. 1167 (1999). Unlike Daubert, Kumho Tire Co. did not involve an opinion, the validity of which relied upon the scientific method. The expert's opinion in Kumho Tire Co. depended in part on scientific principles but also upon the knowledge of the witness gained through his experience and training.

[111] In Kumho Tire Co., the court made it clear that, while all expert opinion evidence must demonstrate a sufficient level of reliability to warrant its admissibility, a flexible approach to the determination of reliability was essential. Some Daubert factors, e.g., error rates, are not germane to some kinds of expert testimony. The court observed, at p. 150 U.S.: [page365]

> In other cases, the relevant reliability concerns may focus upon personal knowledge or experience. As the Solicitor General points out, there are many different kinds of experts, and many different kinds of expertise. . . . Daubert makes clear that the factors it mentions do not constitute a "definitive checklist or test." . . . We agree with the

> Solicitor General that "the factors identified in Daubert may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert's particular expertise, and the subject of his testimony."

(Emphasis in original; footnote omitted)

[112] An example of the flexible approach to the assessment of reliability favoured in Daubert and Kumho Tire Co. is found in United States of America v. Hankey, 203 F.3d 1160 (9th Cir. 2000), a case involving expert evidence regarding gangs. There, the prosecution offered expert opinion evidence through a long-time undercover police officer of the "code of silence" that operated within the culture of certain urban street gangs. After referring to Kumho Tire Co. and the need to assess reliability by indicia that are relevant to the particular expertise advanced, the court said, at p. 1169 F.3d:

> Given the type of expert testimony proffered by the government, it is difficult to imagine that the court could have been more diligent in assessing relevance and reliability. The Daubert factors (peer review, publication, potential error rate, etc.) simply are not applicable to this kind of testimony, whose reliability depends heavily on the knowledge and experience of the expert, rather than the methodology or theory behind it.

(Emphasis added)

[113] Several Canadian trial courts have reached a similar conclusion and admitted expert evidence about various features of gang culture relevant to the particular prosecution: see, e.g., R. v. Wilson; R. v. H. (H.J.), [2002] B.C.J. No. 3103, 2002 BCSC 1833; R. v. Grant, [2005] O.J. No. 5891 (S.C.J.); R. v. Lindsay, [2004] O.J. No. 4097, [2004] O.T.C. 896 (S.C.J.).

[114] The same caution against the inappropriate use of the Daubert factors to assess the reliability of expert opinion evidence can be found in Canadian commentary. Professor Paciocco has observed:

> Clearly it is inappropriate to consider all expertise as science, or to require all expertise to attain the scientific

> method. Some expert witnesses rely on science only in a loose sense. Actuaries apply probability theory and mathematics to produce decidedly unscientific results. Appraisers make subjective assessments of objective data, as do family assessment experts. Professionals testifying to standards of care within their profession are doing nothing scientific. Yet Daubert spawned a jurisprudence that was fixated for a time with science. This led lower courts to commit two kinds of error. First, it caused some lower courts to hold that the Daubert test and the gatekeeping role is confined to scientific expertise. Experts who were not scientists would not be subjected to the reliability inquiry prescribed by Daubert. Second, it caused other courts to apply the criteria listed in Daubert [page366] in a wooden fashion, even to non-scientific forms of expertise. Each of these two kinds of errors was caused by the failure to take context into account. [See Note 10 below]

(Emphasis added)

[115] Commissioner Goudge made the same point in his report, at p. 493:

> Forensic pathology provides a good example of a discipline that has not traditionally engaged in random testing or determining rates of error. The reasons are obvious: testing and reproducibility cannot be used to verify a cause of death. The forensic pathologist's opinion must instead rely on specialized training, accepted standards and protocols within the forensic pathology community, accurate gathering of empirical evidence, attention to the limits of the discipline and the possibility of alternative explanations or error, knowledge derived from established peer-reviewed medical literature, and sound professional judgment.

(Emphasis added)

[116] The trial judge mischaracterized Dr. Totten's opinion as involving a novel scientific theory. It was not scientific. It was not novel. And it was not a theory. Dr. Totten's opinion was based on knowledge he had acquired about a particular culture through years of academic study, interaction in various ways with members of that culture and review of the relevant

literature. He spoke to the meaning, as he understood it from his knowledge, of certain symbols within that culture. Dr. Totten's evidence could no more be regarded as a "scientific theory" than would evidence from a properly qualified expert to the effect that wearing certain clothing in a particular culture indicates that the wearer belonged to a particular religious sect.

[117] The proper question to be answered when addressing the reliability of Dr. Totten's opinion was not whether it was scientifically valid, but whether his research and experiences had permitted him to develop a specialized knowledge about gang culture, and specifically gang symbology, that was sufficiently reliable to justify placing his opinion as to the potential meanings of the teardrop tattoo within that culture before the jury: see David P. Leonard, Edward J. Imwinkelried, David H. Kaye, David E. Bernstein and Jennifer L. Mnookin, The New Wigmore: A Treatise on Evidence (New York: Aspen Publishers, 2004), at para. 9.3.4. [page367]

(2) The relevant reliability factors

[118] In holding that the trial judge improperly attempted to use the specific Daubert factors in assessing the reliability of Dr. Totten's evidence, I do not suggest that the Crown was not required to demonstrate threshold reliability. That reliability had to be determined, however, using tools appropriate to the nature of the opinion advanced by Dr. Totten.

[119] As with scientifically based opinion evidence, there is no closed list of the factors relevant to the reliability of an opinion like that offered by Dr. Totten. I would suggest, however, that the following are some questions that may be relevant to the reliability inquiry where an opinion like that offered by Dr. Totten is put forward:

- To what extent is the field in which the opinion is offered a recognized discipline, profession or area of specialized training?
- To what extent is the work within that field subject to quality assurance measures and appropriate independent review by others in the field?

-- What are the particular expert's qualifications within that discipline, profession or area of specialized training?
-- To the extent that the opinion rests on data accumulated through various means such as interviews, is the data accurately recorded, stored and available?
-- To what extent are the reasoning processes underlying the opinion and the methods used to gather the relevant information clearly explained by the witness and susceptible to critical examination by a jury?
-- To what extent has the expert arrived at his or her opinion using methodologies accepted by those working in the particular field in which the opinion is advanced?
-- To what extent do the accepted methodologies promote and enhance the reliability of the information gathered and relied on by the expert?
-- To what extent has the witness, in advancing the opinion, honoured the boundaries and limits of the discipline from which his or her expertise arises?
-- To what extent is the proffered opinion based on data and other information gathered independently of the specific case or, more broadly, the litigation process? [page368]

[120] The significance of testing the expert's methodologies against those accepted in the field was highlighted in Kumho Tire Co., at p. 152 U.S.:

> The objective of that requirement [the gatekeeper function] is to ensure the reliability and relevancy of expert testimony. It is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigour that characterizes the practice of an expert in the relevant field.

(Emphasis added)

[121] The study of cultural mores within particular communities or groups in a community is a well-recognized field of study within the broader academic and professional disciplines of sociology, criminology and anthropology. Dr. Totten's expertise in this particular field was acknowledged by all involved in this case. There was no challenge to the manner

in which Dr. Totten gathered the relevant data. By that I mean it was not suggested that the information he looked to had not been accurately recorded and memorialized by those involved in the various studies. These three features of his evidence should have factored into the trial judge's assessment of the threshold reliability of Dr. Totten's evidence. They were not.

[122] Dr. Totten testified at length about the techniques and methods he used in his research to assemble and verify the information he ultimately drew on to advance his opinion. While acknowledging that he could not ensure that all the information he received from gang members was accurate, he explained the various methods used in an attempt to maximize the veracity of the information received. Dr. Totten testified that the methodology he followed was well established within his field of study and was entirely consistent with the methods used by others conducting the same kind of research. For example, Dr. Totten explained several ways in which the concept of peer review was used in his field. His studies were all peer reviewed using those techniques.

[123] The trial judge, as he was entitled to do, made his own assessment of the effectiveness of some of the specific techniques used by Dr. Totten to enhance the reliability of the information he received in his studies. However, the trial judge should have taken into account in his threshold reliability assessment the unchallenged evidence that Dr. Totten's work was done in accordance with the established and accepted methodology used in his field. Dr. Totten, by employing "the same level of intellectual rigour" (Kumho Tire Co., at p. 152 U.S.) when advancing his opinion in the courtroom that he and his colleagues used in the course of their practice, enhanced the threshold reliability of the opinion based on that work. [page369]

[124] Two other factors not mentioned by the trial judge were potentially important to the reliability assessment. First, Dr. Totten drew his conclusions from data gathered in research studies that had no connection to this case. There was no chance that in gathering the relevant information, Dr. Totten sought, consciously or subconsciously, to lend his expertise to

one side of the legal controversy. "Confirmation bias" was not an issue. It cannot be suggested that Dr. Totten set out to confirm an existing belief about the meaning of teardrop tattoos when he conducted his research. Dr. Totten's neutrality when he gathered the information he ultimately looked to to form the relevant opinion distinguishes his evidence from that of experts who are sought out to generate information for the purposes of litigation, or those who come to a case with firmly held preconceived notions that place the expert firmly on one side of the controversy.

[125] Second, neither the methodology used by Dr. Totten nor his opinion concerning the teardrop tattoos were complex or difficult for the layperson to understand and evaluate. I have no doubt that the methods Dr. Totten employed, the data those methods produced and his opinion based on those data could be critically evaluated and independently assessed by a jury. This was not rocket science.

[126] I am satisfied that the factors outlined above, taken in combination, offer a firm basis upon which a trial judge could conclude that Dr. Totten's opinion, that the inscription of a teardrop tattoo on the face of a young male gang member carried one of three possible meanings within the urban gang culture, was sufficiently reliable to justify its admission. Unfortunately, the trial judge did not address these factors but focused almost exclusively on the Daubert factors, which, for the reasons I have explained, had no relevance to the reliability of Dr. Totten's evidence.

(3) Further errors in the reliability assessment

[127] In addition to using inapplicable reliability factors and failing to consider applicable ones, the trial judge made errors in his assessment of the methods used by Dr. Totten to enhance the reliability of his data. Most significantly, the trial judge applied too high a standard in determining whether those methods provided sufficient reliability to clear the threshold reliability requirement.

[128] The trial judge accepted that some of Dr. Totten's methods, for example triangulation, could enhance the

reliability of the information given to him by the interviewed gang members (at para. 81). The trial judge ultimately concluded, however, that the methods used by Dr. Totten were "not unassailable" (at para. 85) and [page370] were "far from foolproof" (at para. 84). In so holding, the trial judge appears to have required the Crown to demonstrate that the methods used by Dr. Totten produced information that was proven to be entirely accurate. For example, after referring to investigative discourse analysis, one of the tools used by Dr. Totten and others in his field, the trial judge said, at para. 84:

> . . . there still exists the probability that some of Dr. Totten's research subjects may have been deceitful on many subjects unknown to him. That deceit would dramatically skew his results and sample size.

(Emphasis added)

[129] I would think that in any field of study where the expert depends on information received from other individuals, there will inevitably be "a probability" that some of those individuals "may have been deceitful" about something in the course of the information gathering process. If this is the standard demanded before opinion evidence based on information received from individuals can be admitted, one must wonder how evidence from psychiatrists and psychologists based on information gathered from an accused, his friends and family is ever deemed sufficiently reliable to warrant its admission. That evidence is, of course, routinely received and used in criminal trials.

[130] The Crown was not required to demonstrate on the voir dire that the information relied on by Dr. Totten was accurate. The Crown was required to demonstrate that there were sufficient indicia of reliability to warrant placing an opinion based on that information before the jury so that it could make the ultimate determination on the reliability of that information and the validity of the opinion based on it. The probability that some part of the wealth of material relied on by Dr. Totten may have been inaccurate was not enough to keep his opinion from the jury.

[131] Not only did the trial judge test the informational basis for Dr. Totten's opinion against too exacting a standard, he also misapprehended parts of Dr. Totten's evidence. When explaining why he regarded the absence of error rates to be a very significant factor in assessing the reliability of Dr. Totten's opinion, the trial judge expressed concern about the risk of "false positives" in Dr. Totten's research. The trial judge explained (at para. 64):

> [T]he possibility of occasions occurring when an individual wearing a teardrop tattoo fits the profile of a murderer but has in reality killed no one should be expressed.

[132] This observation demonstrates a misapprehension of Dr. Totten's evidence. Dr. Totten interviewed 300 gang members. Ninety-seven had been convicted of homicide related offences. Of that group of 97, 71 had teardrop tattoos. All 71 explained that [page371] their teardrop tattoo represented the murder of a rival gang member. Dr. Totten's opinion as to the potential meaning of a teardrop tattoo was based in part on the explanation offered by persons who had a teardrop tattoo and who had been convicted of a homicide related offence. The convictions for homicide related offences of 71 people with teardrop tattoos lent some credibility to their explanation for the reason behind the teardrop tattoo. Dr. Totten made no attempt to fit individuals with teardrop tattoos into "the profile of a murderer". Language referring to profiling by experts is used in some of the expert opinion case law, but has no application to Dr. Totten's evidence.

[133] The trial judge also misapprehended Dr. Totten's evidence as it related to the potential motive of the gang members interviewed to deny any involvement in criminal activity. The trial judge determined that the reliability of Dr. Totten's opinion suffered because of the very real possibility that gang members he interviewed would have a motive to conceal involvement in criminal activity (at paras. 82, 83). The trial judge explained that because Dr. Totten told interviewees that he may be obliged to disclose criminal conduct revealed by them, the interviewees would be reluctant

to disclose criminal activity.

[134] There is no denying the logic of the trial judge's analysis. In respect of some of the information gathered by Dr. Totten, there was a very real motive to conceal the truth from Dr. Totten. I do not see, however, how any motive to lie could have a negative effect on the information pertinent to Dr. Totten's opinion in this case. First of all, any lies told to Dr. Totten by persons who did not have teardrop tattoos were irrelevant for the purposes of his opinion. That opinion rested in part on the explanation given for the teardrop tattoo by all 71 of the interviewed gang members who both had tattoos and had been convicted of a homicide related offence. Their responses, linking their teardrop tattoos with the murders of rival gang members, could not have been motivated by a desire to avoid criminal liability. The only persons interviewed who had teardrop tattoos and who might have had a motive to lie to avoid incriminating themselves in a homicide were the ten gang members who had teardrop tattoos, but did not have homicide related convictions. None of those gang members suggested that the teardrop tattoo represented involvement in a homicide.

[135] On the trial judge's hypothesis, some or all of these ten gang members may have lied about the meaning of their teardrop tattoo to avoid implicating themselves in the murder of a rival gang member. If any of the ten lied for that reason, however, their lie does not undermine the validity of Dr. Totten's opinion that the [page372] murder of a rival gang member is one explanation for a teardrop tattoo, but would instead confirm that opinion.

[136] The trial judge also misapprehended Dr. Totten's evidence concerning the possibility that individuals who were not gang members would place a teardrop tattoo on their face as a fashion statement or to pose as persons living the gangster lifestyle. The trial judge said (at para. 66) that Dr. Totten:

> . . . was quite adamant in eliminating the possibility that "wannabees" or "poseurs" may have a teardrop inscribed on their face in order to portray a sense of dangerousness or false identity with a gang.

[137] I do not read Dr. Totten's evidence that way. He readily acknowledged the "wannabee" and "poseur" phenomena. Dr. Totten agreed that gang symbols had found their way into the more mainstream culture and that non-gang members used them without regard to their meanings within the gang culture. However, Dr. Totten went on to testify, correctly, that the respondent was not a "poseur" or "wannabee", but was a gang member. He opined that a gang member would not likely misuse the symbols of the gang to which he belonged lest he face the gang's retribution. Dr. Totten's evidence offers an explanation that could be accepted by a jury for discounting the possibility that an admitted gang member would misuse the symbols. That reasoning is mischaracterized as a refusal to acknowledge that "wannabees" and "poseurs" use gang symbols.

[138] Another misapprehension of Dr. Totten's evidence occurred when the trial judge referred to that evidence as "fairly equivocal" on the issue of whether Dr. Totten could speak directly to the meaning of the respondent's teardrop tattoo without interviewing the respondent. On a fair reading of the entirety of Dr. Totten's evidence and the contents of his reports, it cannot be said that he equivocated. Dr. Totten acknowledged throughout that the meaning of an individual's tattoo could only be definitively determined by speaking with that individual.

[139] A further misapprehension of Dr. Totten's evidence occurred when the trial judge addressed his evidence concerning the applicability of American studies to Canadian urban street-gangs. According to the trial judge, Dr. Totten was content to conclude that Canadian research was applicable in the United States "because he has often been asked to present at American sociology conferences" (at para. 88). Speaking at academic conferences in the United States would offer scant support for Dr. Totten's opinion that research in the two countries had cross-border application. In fact, Dr. Totten testified that his belief with respect to the applicability of American research was based on his own extensive experience with American street gangs in Chicago [page373] and his detailed review of the American literature. This is a much firmer basis

for the opinion than was acknowledged by the trial judge.

[140] In addition to misapprehending parts of Dr. Totten's evidence, the trial judge took into account what I consider to be an irrelevant part of that evidence. The trial judge held (at para. 68) that Dr. Totten's "theoretical model" did not allow for instances where there were multiple shooters of a rival gang member and not all of those shooters were entitled to wear a teardrop tattoo.

[141] Dr. Totten was not advancing a "theoretical model" of anything in his evidence. More to the specific point, the question of who among multiple shooters should, according to gang rules, get credit for a killing and have the right to inscribe a teardrop tattoo on his face had nothing to do with Dr. Totten's opinion concerning the meaning of a teardrop tattoo in the urban street-gang culture. The manner in which a particular individual involved in a killing was selected as the person entitled to wear the teardrop tattoo would not alter the fact that the individual who had the teardrop tattoo earned it by killing a rival gang member.

(4) The distinction between threshold reliability and ultimate reliability

[142] In performing the "gatekeeper" function, a trial judge of necessity engages in an evaluation that shares some of the features with the evaluation ultimately performed by the jury if the evidence is admitted. The trial judge is, however, charged only with the responsibility to decide whether the evidence is sufficiently reliable to merit its consideration by the jury. The integrity of the trial process requires that the trial judge not overstep this function and encroach onto the jury's territory. In assessing threshold reliability, I think trial judges should be concerned with factors that are fundamental to the reliability of the opinion offered and responsive to the specific dangers posed by expert opinion evidence. Trial judges, in assessing threshold reliability, should not be concerned with those factors which, while relevant to the ultimate reliability of the evidence, are common with those relevant to the evaluation of evidence provided by witnesses other than experts. For example, I would

not think that inconsistencies in an expert's testimony, save perhaps in extreme cases, would ever justify keeping the expert's opinion from the jury. Juries are perfectly able to consider the impact of inconsistencies on the reliability of a witness's testimony.

[143] In this case, the trial judge focused on what he considered to be several inconsistencies in Dr. Totten's evidence in deciding [page374] whether that evidence met the threshold reliability inquiry. In doing so, I think he went beyond the bounds of that inquiry. Those inconsistencies may or may not have been significant to the jury's ultimate evaluation, but I do not think they had any role to play in the trial judge's analysis. I will refer to four of the inconsistencies emphasized by the trial judge.

[144] The trial judge decided that Dr. Totten gave inconsistent evidence concerning the timing of the inscription of a teardrop tattoo by a person who had killed a rival gang member. Initially, during examination-in-chief, Dr. Totten indicated that the tattoo could be inscribed "a couple of months after the murder". Later, but still in his examination-in-chief, Dr. Totten talked about "three or four months to a year". Still, later, he described the timing as depending on a variety of factors. These answers are different and perhaps inconsistent with each other. However, the differences could well be regarded as inconsequential. Certainly, they have nothing to do with the core opinion advanced by Dr. Totten concerning the meanings of a teardrop tattoo.

[145] The trial judge characterized Dr. Totten's evidence about the population of street gangs as "inconsistent" (at para. 63). He testified that the population of street gangs in Canada was unknown and difficult to isolate with any accuracy. Dr. Totten later offered an estimate of the total gang population in Canada. I have difficulty seeing any inconsistency in these two answers. In any event, if there is an inconsistency, it is not such as would affect the threshold reliability of his evidence.

[146] The trial judge compared portions of Dr. Totten's

evidence to various comments in the authoritative academic literature and found several conflicts, which the trial judge used in assessing threshold reliability (at paras. 75, 76). I count nine examples of inconsistencies referred to by the trial judge. Some were picayune. For example, Dr. Totten said the tattoo could refer to the death of a family member or a gang member whereas one of the authors reported that it could also refer to the death of a good friend. Some of the other inconsistencies identified by the trial judge were not inconsistencies. For example, the trial judge referred to comments by several authors to the effect that only the wearer of a tattoo knew the reason for the tattoo. This is entirely consistent with Dr. Totten's evidence and his reports. Some of the other differences between Dr. Totten's evidence and excerpts from the academic literature were overstated by the trial judge. For example, one author had written that the teardrop tattoo may have lost its traditional meaning among young members of Hispanic gangs in California. The trial judge read this single qualification on the symbolic meaning of the tattoo [page375] as completely undermining Dr. Totten's opinion that the teardrop tattoo had common meanings among urban street gangs in North America. The reporting by another expert of a single anomaly does not, in my view, necessarily undermine Dr. Totten's evidence. At its highest, it suggests some potential controversy among authorities, certainly fodder for cross-examination but no reason to exclude Dr. Totten's evidence.

(f) Peer review and proof of the facts underlying an opinion

[147] The trial judge concluded that Dr. Totten's opinion was unreliable in part because it was not based on proven facts. He said, at para. 46:

> Dr. Totten conceded that his conclusions concerning the results have not been peer-reviewed by other criminologists or sociologists. As a consequence, it cannot be held that his opinion is based on proven facts.

[148] Dr. Totten's research was peer reviewed, as that phrase is used and understood in the field of sociological research. In any event, I cannot see a connection between peer review and

proof of the facts upon which Dr. Totten's opinion was based. Some of the facts relevant to his opinion were agreed upon. For example, it was agreed that the respondent was a gang member, that the murder of Mr. Peter was gang related and that the respondent had inscribed a teardrop tattoo on his face a few months after the murder. However, the information relied on by Dr. Totten, which was received from the various gang members during his interview process, was clearly not proved within the confines of this case.

[149] Experts, in forming their opinions, often rely on information gathered using techniques and methods common to their field of expertise, even though that information is not proved within the four corners of the case in which the opinion is offered. The reliability of the information received by Dr. Totten in the interview process was obviously crucial to the ultimate weight to be assigned to his opinion. It was, however, a matter for the jury and not a reason to exclude the opinion: see St. John (City) v. Irving Oil Ltd., [1966] S.C.R. 581, [1966] S.C.J. No. 36, at p. 592 S.C.R.; R. v. B. (S.A.), [2003] 2 S.C.R. 678, [2003] S.C.J. No. 61, at pp. 704-706 S.C.R., 178 C.C.C. (3d) 193, pp. 217-18 C.C.C.

IV. The Admissibility of the Gang Members' Evidence

[150] As outlined above, the Crown proposed to elicit evidence from A.B., C.S. and G.D. All three could testify to the meaning of a teardrop tattoo within their group of friends and associates, [page376] some of whom were Malvern Crew gang members. In addition, the Crown proposed to elicit evidence from G.D. of the circumstances surrounding a conversation he had with the respondent in which the respondent admitted he had killed Mr. Peter. The Crown contended that the circumstances surrounding that admission were capable of demonstrating that the respondent shared the same understanding of the meaning of a teardrop tattoo as the other gang members, and had acted on that understanding by inscribing a teardrop tattoo on his face after he murdered Mr. Peter.

[151] The trial judge excluded this evidence. I will consider first the admissibility of the evidence concerning the meaning of a teardrop tattoo within the Malvern Crew gang culture. I

will then consider the admissibility of the evidence given by G.D. concerning the events surrounding the respondent's alleged admission to G.D. that he had killed Mr. Peter.

(i) The meaning of a teardrop tattoo in the Malvern Crew culture

[152] A.B. testified on a voir dire that he first saw the respondent with a teardrop tattoo in May 2004. He could not recall any discussion with the respondent about the tattoo. He was then asked what a teardrop tattoo meant to him. A.B. responded that it could mean either that the wearer of the tattoo had killed someone or that someone close to that person had died. A.B. confirmed that a teardrop tattoo had one of those two meanings within the group of people, including the Malvern Crew, that he associated with on a regular basis. A.B. believed that the respondent's teardrop tattoo was meant to indicate that he had killed someone.

[153] At the trial judge's request, A.B. was asked how he came to believe that a teardrop tattoo had one of the two meanings he had described in his evidence. He indicated that he heard people "on the street" talking about it and had also seen reference to it on television and in the movies. A.B. had not discussed the meaning of a teardrop tattoo with other Malvern Crew gang members and he was unaware of any gang "policy" relating to tattoos. When pressed, A.B. could not identify a specific person with whom he had discussed the meaning of a teardrop tattoo. When further pressed as to why he believed that a teardrop tattoo had one of two possible meanings in his group culture, A.B. answered:

> I couldn't answer. I'm not sure how I like to say on behalf of them how they know, but I just, me, personally, I believe they know, because I think it is a fact. [page377]

[154] C.S.'s voir dire evidence as to the meaning of a teardrop tattoo was much the same as A.B.'s evidence. C.S. indicated that he gained his understanding of the meaning of a teardrop tattoo from watching rap videos, documentaries and other gang-related films. He also testified that he and his associates would from time to time discuss the meaning of

teardrop tattoos. It was from these discussions that he came to believe there was a common understanding of the possible meanings to be attributed to a teardrop tattoo. C.S. testified that at one time he asked the respondent why he had inscribed a teardrop tattoo on his face. The respondent replied, "just stupidity".

[155] G.B., a long-time and senior member of the Malvern Crew, testified that "getting a teardrop on your face, it means you took a life, that's what it means to me". G.B. indicated that the meaning of a teardrop tattoo was not the subject of conversation among gang members, but that he understood the meaning because in "the culture I'm from that's what it means".

[156] The trial judge treated the evidence of the three gang members as to the meaning of a teardrop tattoo in their culture as akin to expert evidence. He called upon the Crown to establish the basis for the witnesses' belief as to the meaning of a teardrop tattoo. The trial judge then found that the basis put forward in the evidence was "hearsay and unreliable". In excluding the evidence, he noted that the witnesses did not have "direct knowledge of the meaning of a teardrop tattoo", but instead relied on a variety of unreliable sources such as movies and television. The trial judge held that evidence as to the meaning of a teardrop tattoo within the gang culture in which the respondent lived was admissible only from a gang member who had a teardrop tattoo, or from a gang member who had spoken to the respondent about the reason he placed the teardrop tattoo on his face. [See Note 11 below]

[157] I agree with Crown counsel that neither requirement imposed by the trial judge was necessary to the admissibility of the evidence. The three gang members who testified were deeply immersed in the gang culture to which the respondent also belonged. They offered evidence as to the meaning of a certain symbol within that culture based on their day-to-day involvement in it. The mere fact that none had a teardrop tattoo could [page378] not disqualify them from speaking to the meaning of that symbol within their culture. As Crown counsel cogently argued, individuals within a given community or culture may well know the meaning of slang words, hand gestures

or the symbolic meaning of certain kinds of clothing even though those individuals have never personally used the slang words, gestures or worn the clothing. To take an obvious example, I would think that anyone living in Toronto could give evidence based on their knowledge of customs within the community that persons wearing certain uniforms were police officers. It would be irrelevant that the person giving this evidence had never worn a police uniform and that his knowledge about the uniforms worn by police officers came in part from movies and television.

[158] The absence of any direct explanation from the respondent concerning the meaning of his teardrop tattoo was also irrelevant to the admissibility of the evidence offered by the three gang members. Had the respondent said anything about the meaning of his tattoo, that statement could have been admissible against the respondent as an admission. That would, however, constitute an entirely different basis for receiving the evidence. Whether or not the respondent spoke to the three gang members about his tattoo had nothing to do with the gang members' ability to testify as to their understanding of the symbolic meaning of that tattoo within the world in which they lived.

[159] A.B., C.S. and G.B. were not put forward as experts on the symbolic meanings of tattoos. Their evidence was based on their knowledge gained from living within and being part of a particular group culture. It is hardly surprising that they could not identify with any specificity the source of their knowledge. Virtually any group, be it a gang or a profession, develops a jargon and symbology which is understood by those who live within that milieu. The witness's ability to speak to the common understanding of a symbol comes not from the reliability of any particular source of knowledge but from that witness's day-to-day living within the culture. [See Note 12 below]

[160] A.B., C.S. and G.B. should have been allowed to testify as to their understanding of the meaning of a teardrop tattoo [page379] within the culture in which they and the respondent lived. All could have been cross-examined. No doubt weaknesses in their evidence, including the basis upon which

the witnesses formed their belief as to the meaning of the teardrop tattoos, would have been fully explored on cross-examination. It would have been for the jury to decide whether to accept that evidence. If, however, the jury accepted the evidence of these witnesses as to the meaning of a teardrop tattoo, that evidence could connect Dr. Totten's opinion about the meaning of teardrop tattoos within urban street gangs with the specific street-gang culture in which the respondent lived and operated. This evidence was, potentially, an important link in the Crown's case.

(ii) The context of G.B.'s conversation with the respondent

[161] G.B. had a conversation with the respondent in the summer of 2004. According to G.B., the respondent admitted that he and three other members of the Malvern Crew had killed Mr. Peter. The respondent's description of the murder to G.B. was consistent with the description he allegedly gave to A.B. and C.S. shortly after the murder. The admissibility of the respondent's admission to G.B. was not in dispute. The jury heard G.B.'s testimony about the alleged admission made by the respondent. The Crown also sought to lead evidence of the exchange between G.B. and the respondent immediately before the respondent's alleged confession. The Crown contended that this exchange precipitated the confession.

[162] On a voir dire, G.B. testified that he saw the respondent in the summer of 2004. He noticed the teardrop tattoo on the respondent's face. The respondent had not had the tattoo when G.B. had seen him on previous occasions. To G.B., a long-time member of the Malvern Crew, the teardrop tattoo meant "you took a life".

[163] G.B. did not think it was wise for the respondent to have put the tattoo on his face. He said to the respondent:

> What are you doing, like, kinda of, like, you're putting yourself on heat; putting yourself on that -- on your face is just bringing heat to yourself.

[164] The respondent made no reply. G.B. then immediately asked the respondent, "what happened". In posing his question,

G.B. made no reference to Mr. Peter's death or to any other specific event. To this point in the conversation, no one had mentioned anyone's murder. In response to G.B.'s question, the respondent immediately launched into a detailed description of his murder of Mr. Peter. [page380]

[165] The trial judge addressed the admissibility of G.B.'s evidence at several different times. On more than one occasion, he said that although he had been initially inclined to admit the evidence, he had reconsidered the matter and decided that the evidence should be excluded. The trial judge found that, as the respondent did not make any explicit response to G.B.'s comment about his teardrop tattoo, the proposed evidence was not sufficiently probative to warrant its admission. He said:

> Clearly, if Mr. Abbey had responded in any fashion about the teardrop tattoo, that evidence would have been admissible and consistent with my prior arguments -- prior reasons. He said nothing and you came back to it several times, and it just wasn't there -- implicit, perhaps, but not explicit. And the problem with implicit versus explicit, given the nature of the evidence, there is a weighing of probative value and prejudicial effect that I have to do here.

[166] The trial judge erred in excluding G.B.'s evidence of the events leading up to the respondent's alleged confession. The trial judge's observation that an explicit acknowledgement by the respondent concerning the purpose of the tattoo would have been admissible, while no doubt accurate, had no bearing on the admissibility of the evidence as tendered. The probative value of evidence is determined by the nature of that evidence and the context in which it is offered, not by some comparative analysis with the probative value of different hypothetical evidence that is not available.

[167] A jury could reasonably infer from G.B.'s evidence that upon seeing the teardrop tattoo, he believed that the respondent had killed someone. After commenting on the inadvisability of advertising such conduct, G.B. asked the respondent what had happened, meaning what happened to cause the respondent to put the tattoo on his face. A reasonable jury

could further infer that the respondent understood exactly what G.B. was asking him and proceeded to explain why he put the teardrop tattoo on his face. That explanation came in the form of a description of his murder of Mr. Peter.

[168] G.B.'s evidence about the context in which the respondent's admission was made could potentially bring home to the respondent the evidence concerning the meaning of a teardrop tattoo within the culture in which the respondent lived. G.B.'s evidence was capable of supporting the contention that the respondent also understood that a teardrop tattoo indicated the murder of a rival gang member and that he had acted upon that understanding by placing the teardrop tattoo on his face after killing Mr. Peter. [page381]

V. The Admissibility of Detective Sergeant Quan's Opinion Evidence

[169] The Crown sought to have Detective Sergeant Quan, a long-time member of the Toronto Police Service, offer an opinion as to the meaning of a teardrop tattoo. Detective Sergeant Quan was the lead investigator on the Guns and Gangs Task Force. It was accepted that he had expertise concerning many facets of gang activity. The defence did not, however, concede that he was qualified to offer an opinion as to the meaning of a teardrop tattoo.

[170] Detective Sergeant Quan gave extensive evidence on a voir dire. The trial judge did not rule on the admissibility of his opinion evidence at the end of that voir dire but proceeded with other evidentiary matters. In the ensuing weeks, the admissibility of Detective Sergeant Quan's testimony arose in the course of argument on many occasions. During these exchanges, the trial judge expressed a variety of concerns about the admissibility of that evidence. As I read the record, the trial judge never made a formal ruling as to the admissibility of Detective Sergeant Quan's evidence. It seems clear, however, that by the end of the various voir dires, the Crown and defence understood that Detective Sergeant Quan's evidence as tendered on the voir dire would not be admissible.

[171] The Crown argues that Detective Sergeant Quan's opinion

evidence should have been admitted. The Crown does not argue, however, that the improper exclusion of that evidence, standing alone, would justify a new trial. As I would require a new trial based on the other errors identified above, it is not essential to the disposition of this appeal that I pass upon the admissibility of Detective Sergeant Quan's evidence.

[172] I have concluded that I should not address the admissibility of Detective Sergeant Quan's opinion. Quite frankly, the record as it stands relating to Detective Sergeant Quan's evidence is quite confusing. On one reading, it could be said that the Crown eventually abandoned its attempt to introduce his evidence.

[173] If the Crown proposes to lead the opinion evidence of Detective Sergeant Quan at a new trial, it will be for the trial judge to determine its admissibility according to the operative principles and approach set out in these reasons. That trial judge will not be bound by anything said by this trial judge concerning Detective Sergeant Quan's evidence.

VI. The Appropriate Order

[174] The Crown has established that the trial judge erred in law in excluding Dr. Totten's opinion concerning the possible [page382] meanings of the teardrop tattoo within urban street-gang cultures. The Crown has further established that the trial judge erred in excluding the evidence of the three gang members concerning the meaning of a teardrop tattoo in their group of friends and Malvern Crew gang members, and in excluding the evidence of G.B. concerning the exchange relating to the respondent's teardrop tattoo immediately preceding his alleged confession to G.B. The respondent's acquittal, however, can be set aside only if the Crown demonstrates that but for the cumulative effect of these errors, the verdict would not necessarily have been the same. Double jeopardy principles, while modified in Canada to permit Crown appeals from acquittals, demand that acquittals be quashed only where the appellate court can say with a reasonable degree of certainty that the outcome may well have been affected by the legal errors: R. v. Graveline, [2006] 1 S.C.R. 609, [2006] S.C.J. No. 16, 207 C.C.C. (3d) 481, at paras. 14-16; R. v. Morin, [1988] 2

S.C.R. 345, [1988] S.C.J. No. 80, at p. 374 S.C.R.

[175] The Crown has met its burden. The excluded evidence must be looked at as whole. Viewed cumulatively, the excluded evidence could reasonably present a compelling picture for the Crown. The excluded evidence moves from Dr. Totten's general opinion about the meaning of a teardrop tattoo within urban street-gang culture, to the more specific evidence of the gang members from the Malvern Crew concerning the tattoo's meaning within their cultural milieu, to the arguably implicit acknowledgement by the respondent in his conversation with G.B. that his teardrop tattoo symbolized his murder of Mr. Peter. I do not suggest that a jury would necessarily take that view of the excluded evidence. I say only that a reasonable jury could take that view. If it did, the verdict could very well be different.

[176] The acquittal should be quashed and a new trial ordered.

Appeal allowed.

Notes

Note 1: The trial judge made an order under s. 486.5 of the Criminal Code, R.S.C. 1985, c. C-46 directing the non-publication of any information that could identify certain civilian witnesses. In the course of his rulings on the admissibility of parts of the evidence given by two of the gang members, the trial judge referred to one gang member as A.B. and the other as C.S. (not their real initials). I will use those same initials to refer to those witnesses in these reasons. I will refer to the third gang member, part of whose evidence was also excluded, as G.D.

Note 2: There was no proof that Mr. Peter was in fact associated with any street gang.

Note 3: G.D. explained that the respondent's description of

the murder summarized in this paragraph was precipitated by G.D.'s inquiry about the respondent's teardrop tattoo. The trial judge excluded this part of the evidence and the jury did not hear what led to the respondent's admissions. That ruling is challenged on appeal and is addressed below in Part IV (ii).

Note 4: It is hard to tell exactly what evidence was led on each voir dire. Although it would appear that Dr. Totten was the only witness on the voir dire into the admissibility of his opinion, the trial judge did refer briefly to evidence heard on the voir dire into the admissibility of Detective Sergeant Quan's evidence in his reasons for excluding Dr. Totten's evidence.

Note 5: The reasons are reported at [2007] O.J. No. 277, 73 W.C.B. (2d) 411 (S.C.J.). The paragraph numbering is slightly different than in the version taken from the transcript. My references are to the transcript version.

Note 6: Dr. Totten's voir dire evidence affords an example of the need to consider different parts of the proposed opinion evidence individually. Whatever may be said about the admissibility of Dr. Totten's opinion concerning the meaning of a teardrop tattoo, his evidence as to the timing of the inscription of the tattoo (at para. 51) does not seem founded either in his research or his clinical experience, but rather seems a product of what Dr. Totten thought was common sense. It may be that this aspect of Dr. Totten's evidence would not be admissible even if his main opinion was admitted.

Note 7: Ontario, Inquiry into Pediatric Forensic Pathology in Ontario, Report: Policy and Recommendations, vol. 3 (Toronto: Queen's Printer, 2008) ("The Goudge Report").

Note 8: There are many civil cases in which an expert's evidence has been excluded or given no weight because of that expert's bias: see Guy Pratte, Nadia Effendi and Jennifer Brusse, "Experts in Civil Litigation: A Retrospective on Their Role and Independence with a View to Possible Reforms" in The Hon. Todd L. Archibald and The Hon. Randall Scott Echlin, Annual Review of Civil Litigation, 2008 (Toronto: Thomson Carswell,

2008) 169, at pp. 182-88. See, also, David Paciocco, "Taking a 'Goudge' out of Bluster and Blarney: an 'Evidence-Based Approach' to Expert Testimony" (2009), 13 Can. Crim. L.R. 135, at 150-53.

Note 9: Indeed, the evidence of professional experts as to the appropriate standard of care in negligence actions is not unlike Dr. Totten's evidence in that professional experts speak essentially to the culture of the profession by reference to the conduct expected of a reasonably competent member of the profession in a given fact situation.

Note 10: David M. Paciocco, "Context, Culture and the Law of Expert Evidence" (2001), 24 Adv. Q. 42, at p. 57. Professor Paciocco has recently repeated his caution against the misuse of the Daubert factors: see Paciocco, "Taking a 'Goudge' out of Bluster and Blarney", at pp. 148-49.

Note 11: The trial judge gave separate but very similar reasons for excluding the evidence of A.B. and C.S. The above quotes are from the reasons relating to A.B. released February 7, 2007 [[2007] O.J. No. 443, 72 W.C.B. (2d) 502 (S.C.J.)]. The reasons relating to C.S. were released February 20, 2007 [[2007] O.J. No. 547 (S.C.J.)]. The trial judge did not give separate reasons with respect to this aspect of G.B.'s evidence.

Note 12: Examples of how jargon is understood within particular groups or cultures abound. For example, how does the golfer know that when a ball flies off in one direction it is a "hook" and when it flies off in the other it is a "slice"? Because, those are the words commonly used by other golfers and golf commentators on television and print to refer to balls that fly off in either of those manners. The terms convey a common meaning to those who operate within the "golfer" culture.
