# Science and "Consistent with" Evidence

THE LOGIC OF expert evidence is sometimes befuddled by what has become a favourite phrase of prosecution experts, especially in sex abuse cases: "consistent with." There are two ways in which this misleading phrase does harm. In the context of identification and comparison issues, the phrase accurately means an absence of difference but is erroneously taken to mean a presence of identity. In the different context of cause and effect or event and sequelae, the phrase is used to hide logically worthless tautologies or unfavourable and damaging remote probabilities. Essentially, some factor that might otherwise appear damaging to the prosecution is explained away by the expert with that turn of phrase.

Regarding identification issues, it has already been noted that the concept of "consistent with" came in for criticism for its use in the context of fibre and hair evidence adduced at one of the trials of Guy Paul Morin. One of the relevant conclusions of that inquiry was that "[c]ertain terms, such as 'match' and 'consistent with' were used unevenly in the criminal proceedings and were potentially misleading. The use of these terms contributed to misunderstanding of the forensic findings and their limitations."

One of the expert witnesses who testified before that inquiry elaborated on the problems involved in this terminology in testimony he gave in a criminal

The Honourable Fred Kaufman, Commissioner, Report of the Kaufman Commission on Proceedings Involving Guy Paul Morin (Toronto: Ministry of the Attorney General, 1998), online: www.attorneygeneral.jus.gov.on.ca/english/about/pubs/morin at 338-43. The term "match" was also there deconstructed.

prosecution. When asked if there was a "concern that the language of 'consistent with' may in fact contain a real risk of misunderstanding the true scientific nature of the limits built into that language," he replied there was. He explained that scientists had a clear understanding of the meaning of "consistent with" but "that understanding is not shared by lawyers or necessarily by members of the public . . . [who] interpret consistent . . . [to mean it has] some weight of association in commonality." He further replied that scientists did not mean there was any weight, association, or commonality and were instead conveying "the picture that this cannot be excluded and we haven't found anything that's different, therefore, we can't exclude it. So it's not inconsistent."

The following questions and answers from his evidence in the criminal case give a good indication of the problems inherent with this phrase and with other language choices:

- Q. Does it necessarily convey anything about predicting an association between two objects once you conclude you haven't found a difference . . .?
- A. It's not intended to do that .... [W]hen I was director of the laboratory in South Australia ... conclusions were expressed ... in exclusionary language. So if tests are conducted and if differences are found, then the report says that it is excluded that these things were common origin. If no differences are found, then the report says it cannot be excluded that these things have a common origin. The additional thing that comes with that exclusionary language that does not come with the expression "consistent with" is that when you say cannot be excluded, that language I understand is generally accepted by listeners as conveying something else with it which says, well, we can't exclude it. Does that mean that there may be some possible reason why these things were not different in the test you conducted but yet were not the same? Whereas if you express it in terms of "consistent with", that language does not convey that sense that there might be other explanations for the failure to find a difference and exclude.
- Q. If a paint chip is taken from that wall and it's analyzed, it's tested, and a report comes back that says this paint chip is "consistent with" having come off that wall. Do I understand you to be saying that the average non-scientific person hearing that conclusion that it's "consistent with" coming from the wall would assume that, that paint chip came from that wall, whereas what the scientist is really saying when they say "consistent with," is that the paint chip cannot be excluded as having come from that wall?

<sup>2</sup> The witness was Dr. William Tilstone. The ruling that followed is R. v. Perlett, [1998] O.J. No. 6026 (Gen. Div.), Platana J.

- A. That's exactly what the scientist would mean.
- Q. They are not saying the paint chip came from the wall. What they're saying is, I can't tell you that it did not come from the wall?
- A. That's quite correct . . . .
- Q. "Consistent with" doesn't mean coming from?
- A. "Consistent with" does not mean coming from. And that's never been what it's intended to mean in scientific language. All it means is that there were no detectable differences.

...

There is an understanding in the forensic science community that the language which is used to convey conclusions is a very difficult area and must be chosen very carefully. It's been addressed in different ways. Some places and some professional organizations have tried to develop glossaries of expressions and relate every day language to some degree of scientific certainty.... I prefer to do what I've described to you and express the conclusions using non-exclusion because I believe, and the responses I've had would confer [confirm] this, that when you say that, you do invite the listener to say, well, what do you mean by that, what are the limitations that can be put on your findings, just because you used that kind of language.

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- Q. Now, the language of "consistent with," does it sometimes obscure the actual weakness of a conclusion?
- A. Well, again, the answer is the same . . . . It's because of feedback from the crime and the defence community in South Australia about their concerns about the images that were conveyed by the use of that kind of language that we made the change.

. . .

- A. Well, normally when we [scientists] say "consistent with," it really is exclusionary,... because that's what it means. It means it is not inconsistent, it is not excluded. But I'm not sure that that's the way that it's used all the time by all practitioners, and I'm pretty certain that that's not the way that it's understood by recipients of the information.
- Q. So the language of "consistent with" if translated to "not inconsistent" may be understood?
- A. Yes.

. . .

Q. Let's take the word "match" because that's straight forward. If somebody says something "matches," then that quite clearly is conveying and is intended to convey an image that these things are inclusionary.

. . .

A. Yes. The following circumstances I believe for ones where "matches" is a perfectly reasonable and appropriate language, a properly conducted fingerprint examination, a properly conducted footwear market examination, a properly and extensively [conducted] DNA test. Or if we take His Honour's example of the paint chip from the wall, if that paint chip was able to be placed back into the wall to produce a jigsaw match, then that's exactly what it is, it's a jigsaw match. And these are circumstances where really it's, I believe, quite legitimate and reasonable to use "match."

...

- Q. If you were, Dr. Tilstone, to see a blood smear on the floor, and if you in your own mind had formed an investigative theory that someone might have dragged their knee through that blood stain, but there was nothing like a fibre impression that could be related to the pants or anything other than the smear, would it be appropriate in describing that smear to describe it in the context of saying . . . it's "consistent with" a knee going through it?
- A. Again we really are just revisiting the same issues. If there's a smear on the floor and there's an item of clothing with a blood stain on the knee, and you asked the question, could that smear have been made by the knee going through the pool of blood, then the answer is yes. But that's such a general comment that it would be dangerous to use the expression "consistent with" given all what we've explored about the differences in understanding about what it really means. If, however, there were features associated with the blood smear that where [were] physical patterns and could be related to the fabric on the clothing or, even better, some flow in the fabric in the clothing, then the language could legitimately be escalated to give a correct impression of a greater degree of certainty that that was caused. So the difference is, on the one hand, could it have caused the smear and, on the other hand, did it cause the smear. And if you want to look at the legitimate use of the word such as "match" or "consistent with," they should be pushed towards the end where the issue is, did it cause a smear, and not from the end, could it have caused a smear. But, again, if someone has used that language, the starting point has got two parts to it. One is they shouldn't, and it's generally not accepted nowadays that you do that. But the other one, you really have to ask them what they intended.

...

- Q. And if they intended to convey an association ... looking at the smear without some further identifying thing, would it be a reliable conclusion about association?
- A. No, it would not because there's been no testing conducted.

Thus, in cases where "consistent with" relates to identity issues, what is validly being said is that there is no discernible difference between the unknown item and the known comparison. The conclusion is one of a "could be" relationship, which is not the same as an "identity" or "is" conclusion. Evidence would better be given in terms of "no discernible difference" or "not inconsistent with."

The other category of cases where "consistent with" is even more problematic concerns issues of cause and effect or event and aftermath. Unsurprisingly, such cases have commonly involved allegations of abuse. For example, in R. v. J.(R.H.),<sup>4</sup> evidence from the Crown's expert witness about the behaviour of abused children was held admissible, along with her opinion that her observations of the female complainant were "consistent with" the girl having been sexually abused.

Two different situations arise here. In the first, the phrase is used to hide a logically worthless tautology. Simply put, everything "is consistent" with sex abuse. Immediate disclosure, delayed disclosure, or no disclosure can all be so described by a sympathetic clinician. The phrase is meaningless when it can always be applied because there is absolutely no evidentiary value to facts or circumstances for which both presence and absence have the same logical import.

In other cases, the phrase serves a slightly different function: to disguise not a tautological claim, but an improbable one. "Consistent with" is used in reference to a fact or circumstance that on the probabilities is against the proponent's hypothesis, but yet may coexist with it albeit only as a remote possibility. In such cases, the fact that probabilities favour disproof of the hypothesis is

Examples are as follows: R. v. Cake, [1996] B.C.J. No. 1655 (S.C.): "Later investigation revealed a 300 Winchester magnum cartridge on the shoulder portion of the road, two or three feet from the line delineating the shoulder from the travelled portion. A 300 Magnum bullet was later found in the entrails of the elk. Expert evidence concluded that it was consistent with having been part of a 300 Winchester Magnum cartridge." R. v. Quewezance, [1999] S.J. No. 405 (Q.B.): "I am satisfied from the nature and character of the footprint left on the door and the expert evidence which was given relating to it that it is consistent with the footwear worn by the accused and that the accused kicked in the door." R. v. Cotter, [1994] N.S.J. No. 142 (S.C.): "Vehicle tracks were imprinted on the grass by the side of the house on the property. The Crown's expert evidence was that these tracks were consistent with tracks made by a tandem truck and, in track measurement and width, consistent with the tandem tires of the dump truck. The defence submits that the expert could not age the grass imprints, and they could have been made by a vehicle moving several times in the same location, or even by a number of vehicles."

<sup>4 (1993), 86</sup> C.C.C. (3d) 354 (B.C.C.A.). Other examples are R. v. E.E.B., [1990] S.J. No. 365, 86 Sask. R. 243 (C.A.): "Physicians gave expert opinion evidence that the injuries were consistent with sexual abuse." R. v. D.R.T., [1992] Y.J. No. 178 (S.C.): "There was expert evidence that such pattern of disclosure was consistent with sexual abuse."

hidden by the "consistent with" language. Ten straight "heads" yielded by tossing a coin is "consistent with" the coin being a fair one (1 chance in 2,048), but if "tails" was your winning side, that defence would sound virtually fraudulent when offered by your opponent.

The impropriety of this verbal shenanigan has even caused a clinician to remonstrate his profession for the use of this tactic, calling it "an attempt to do through connotation what cannot be done through denotation. It is a statement designed to leave an impression that is clearly not warranted by the underlying facts."

A recent Australian case provides an excellent example of the misuse and faulty logic involved in that phrase. Regina v. R.T.B.7 was an appeal from a conviction for sex offences, which included the following excerpt of evidence:

Dr. Jennifer Geraghty was called to give evidence. Her attention was directed to the medical history given to her by a complainant:

- Q. And did that history include penile penetration of the anus?
- A. It did.

...

- Q. Did she state that that occurred over a period of about six months and that the last incident was then about three months previously?
- A. Yeah.
- Q. As a result of having taken that history did you examine the anal and perianal region of the patient?
- A. I did.
- Q. And what were your findings when you made that specific examination?
- A. The examination findings of the anal and perineal [sic] area were normal.
- Q. Having been given the history of penal [penile] penetration of the patient's anus are you able to express an opinion as to whether what you saw was consistent with the complaint of the child that she'd been anally penetrated by a penis?
- A. The normal examination of the anus is consistent with the child's history that she had been penetrated in the anus.

Richard J. Lawlor, "The Expert Witness in Child Sexual Abuse Cases: A Clinician's View" in Stephen J. Ceci & Helene Hembrooke, eds., Expert Witnesses in Child Abuse Cases: What Can and Should Be Said in Court (Washington, DC: American Psychological Association, 1998) c. 5 at 110.

<sup>6</sup> An excellent reference debunking "consistent with" is Ceci & Hembrooke, ibid. at 110-11, 150, and 273. See also S.A. Newman, "Assessing the Quality of Expert Testimony in Cases Involving Children" (1994) 22 J. Psychiatry & Law 181 at 196.

<sup>7 2002</sup> NSWCCA 104.

#### HIS HONOUR

- Q. I'm sorry was it consistent or inconsistent?
- A. It was consistent yeah.

#### CROWN PROSECUTOR

- Q. Is that so doctor that you would not necessarily have found injury on the child if her anus had been penetrated by the penis of a male person?
- A. That's correct.

### The Court of Appeal had the following comments about this evidence:

The doctor said that there was no physical indicator of such an occurrence. The import of her evidence was that there would not necessarily be any such indicator. No doubt evidence of this character will often be appropriate in order to ensure that a jury does not speculate about the absence of medical evidence. Where (as here) the evidence has limited materiality, consideration should be given to alternative ways in which the issue might be handled.

Perhaps an example will demonstrate what is logically deplorable about the foregoing facile acceptance of this type of forensic evidence or its equivalent (and perhaps why the judge "stumbled" over what the expert's answer had been, as if he could not believe his ears).

A complainant says the accused was standing three feet away from him, holding a gun. The complainant looked away, and then claims he heard a shot and thought he felt himself struck. At issue is whether the accused in fact shot the complainant; that is, aimed at and fired at the complainant. The accused denies any shooting.

First, the obvious thing to do would be to physically examine the victim for any signs of bullet holes. Such physical evidence would go a long way towards establishing the disputed act. But suppose the complainant's entire body is devoid of any bullet holes. The accused would obviously rely on such negative evidence to establish the lack of any shooting, and locate the claimed sound and feeling of being struck in the complainant's imagination or untruthfulness.

Could the prosecution then call an expert to testify that the lack of a bullet hole is "consistent with" being shot at three feet (on the theory that there are some really bad shots or lucky victims)? First of all, if it did, the witness's evidence would probably be given as "not inconsistent" to acknowledge that it was an improbability or a "long shot" that was being contemplated. "Not inconsistent" is reserved for improbabilities while "consistent" carries a connotation of reasonable probability.

Second, such expert evidence would be excluded as unnecessary because any ordinary person has a sense of the probabilities involved in the situation. The

chances of an unintentional miss at close range are within the common stock of knowledge. Both sides are quite capable of arguing the issue without any expert evidence being necessary.

To return to the sex abuse context, expert evidence such as that in the above example should really be nothing more or less than accurate and reliable evidence of probabilities or patterns supposedly outside the common stock of knowledge. It is to inform the trier of fact of otherwise unknown probabilities.

A layperson has no idea of the probabilities of normal findings in the anal area three months after regular incidents of penetration. Without that knowledge, it is impossible to determine whether the absence of findings has any significance, such as the absence of a bullet hole supposedly fired at three feet as opposed to a shot at half a kilometre.

If Crown experts, in keeping with this reasoning, gave objective and reliable evidence regarding probabilities based upon sound data, there could be no complaint. But that is not what happens.

First, there are not as many sound data on a lot of these issues as there should be because of the hysteria that blankets the area and the damnation visited on researchers that come to politically incorrect conclusions. As a result, the conclusions can and are founded on ideology and speculation in preference to the admission of agnosticism that would be appropriate.

Second, "consistent with" is used in preference to the more intellectually honest "not inconsistent with" to disguise the low probability of the scenario being favoured and avoid instigating the further questioning that might expose the cover-up.

In the example above, the evidence should have gone along the following lines (the questions can be implied from the answers):

- A. Even though I found no physical signs in the anal region whatsoever, I do not believe that is necessarily inconsistent with the allegation of anal penetration.
- A. Of course the lack of findings is completely consistent with such acts never having taken place.
- A. But I believe it is also not inconsistent with the acts having taken place.
- A. I have the following data that show that in some cases where anal penetration occurs, such as is alleged here, that three months later the anal

<sup>8</sup> See notes 88 & 89 in chapter 7.

- region looks perfectly normal: (data are set out so they can be examined and verified and validated).
- A. I agree that according to the data in only about 3% of the cases was there a complete absence of any physical signs. So I agree that it is a rare situation. So I have to agree that according to the data, absence of any physical signs is much more consistent with no such penetration. I agree that in saying the lack of findings was "consistent" with the allegations being true I really meant it was "not inconsistent" in the sense that in a rare case, a very small percentage of cases, it is possible to find such a situation.

In other words, Crown experts should be testifying to the actual probabilities and not covering up with the intellectually dishonest device of talking about consistency whereby the actual low probabilities are being disguised. When evidence incriminates, Crown experts have no problem asserting, for example, that digital penetration rather than a diaper rash is "far more consistent" with the observed physical signs. But when the evidence exculpates because it is highly consistent with innocence and only remotely consistent with guilt, it is unfairly hidden by the expedient of dropping the adjectives and discussing consistency as if it were an all-or-nothing concept.

Where the evidence is obviously exculpatory, such as an absence of physical or other sequelae, the proper questions should go as follows:

- Q. If the allegations were true, would you have expected to see some physical signs?
- A. Not necessarily.
- Q. On what do you base that opinion? With what probabilities?

The triers of fact should be informed of the respective probabilities to form their own opinion of whether, as in the shooting example, the accused shot and missed or in fact never shot at all.

In a case where if the offence was committed it would be probable (though not certain) that certain sequelae would obtain, it is unfair to deprive the accused of the fact that the probabilities are in his favour by the expedient of talking only in terms of the dualism consistent or inconsistent.

If it is a reasonable inference that if an act is done its reasonable and probable consequences will follow, then it is equally a reasonable inference that if those consequences have not appeared, then the act was not done.

An accused is entitled to the benefit of the reality that if what is claimed was done, it would have left results. In fact, the absence of evidence is usually what is crucial for an innocent accused. When the issue is whether an act was done or not, logically what other evidence can exist that something was not done than the absence of its probable consequences? This word game utilizing "consistency" should not be allowed to incapacitate the ability of physical reality to appropriately and justly controvert evidentiary claims.9

If a jury is entitled to utilize the common-sense inference that from an act one can infer its usual and probable consequences, then an accused is entitled to invoke the related logic that from the absence of the usual and probable consequences it is a common-sense, reasonable inference of the absence of the act.<sup>10</sup> Prosecution witnesses should not be allowed to utilize "consistent with" to prejudice an accused. As one English court put it, "Whereas 'inconsistency' was often probative, the fact of consistency was quite often of no probative value at all." 'The gamesmanship implicated by such a language device is most definitely not "consistent with" the proper role of an expert.

<sup>9</sup> Unfortunately the gambit continues to appear: R. v. Garon, [2009] O.J. No. 24 at paras. 21 & 22 (C.A.) at paras. 21 & 22.

<sup>10</sup> Unlike the fallacies earlier described — see text after note 67 in chapter 4 — this is the permissible reasoning called "denying the consequent."

<sup>11</sup> R. v. Puaca, [2005] EWCA Crim 3001.

## Science and Social Science Evidence

ISSUES OF EXPERT evidence can also arise where courts try to obtain and consume expert evidence on their own, without the assistance of an expert witness. This has become an issue because in the market expansion of social science evidence, its purveyors have discovered the legal doctrine of judicial notice.

A prominent attempt to enhance the use of social science evidence in general relies on a categorization of the types of "facts" that courts must find. 'Using a taxonomy of "social fact" (or adjudicative facts: facts important only to the immediate parties to a dispute) and "social authority" (legislative facts, or facts used to help courts decide questions of law and policy), supplemented by "social framework," authors Monahan and Walker argue for a categorization of the evidentiary requirements for each as follows:

- Social science research that bears on an adjudicative fact is governed by
  the normal rules of evidence. The precedential value of social science
  used in this way is limited to the methodology of the social science (e.g.,
  the use of standard deviation analysis to establish a prima facie case of
  employment discrimination).
- "Social authority" evidence and "social framework" can be obtained outside the normal rules of evidence.

J. Monahan & L. Walker, "Social Authority: Obtaining, Evaluating and Establishing Social Science as Law" (1986) 134 U. Pa. L. Rev. 477.

<sup>2</sup> As summarized in Judge R. James Williams, "The Use of Social Science Evidence" (undated, Dartmouth, Nova Scotia).

The mechanism proffered for this "obtaining outside the normal rules of evidence" is the doctrine of judicial notice. Aside from mandatory recognition of laws and subordinate legislation, judicial notice usually applies to "adjudicative facts," to use the above terminology; that is, facts that concern the immediate parties. However, in addition, as another author put it, "the doctrine of judicial notice of legislative facts allows Courts development and interpreting the law to take judicial notice of the society within which the law operates."

The rationale offered is that this broad and potentially far-reaching utilization of judicial notice that allows judicial notice of social "context" is necessary for appellate courts, especially as they are called upon to address important public issues where determining the law will require an "understanding" of the social environment and reality. The necessity for such "social framework" evidence has become a popular buzzword, especially in the highly politicized

Utilizing the doctrine, courts can accept facts that are "indisputable and notorious," such as geographic locations: R. v. Zarelli (1931), 55 C.C.C. 314 (B.C.C.A.); R. v. Purcell (1975), 24 C.C.C. (2d) 139 (N.S.C.A.); R. v. Bednarz (1961), 35 C.R. 177 (Ont. C.A.); R. v. Cerniuk (1948), 1 W.W.R. 653 (B.C.C.A.); mechanics of the breathalyzer machine: R. v. Walters (1975), 26 C.C.C. (2d) 56 (N.S.C.A.): must blow into tube attached to machine; availability of legal aid services: R. v. Cobham (1994), 118 D.L.R. (4th) 301 at 309-10 (S.C.C.); but not the workings of laser beam speed devices: R. v. Waschuk (1971), 1 C.C.C. (2d) 463 (Sask. Q.B.). However, in Joliette (City) v. Delangis (1999), 141 C.C.C. (3d) 445 (Que. C.A.), it was held that the court could take judicial notice of the fact the laser beams can be used as a device to measure the speed of the vehicle. In general, as stated in R. v. Potts (1982), 66 C.C.C. (2d) 219 (Ont. C.A.), "it is nevertheless clear that a trial court is not justified in acting on its own personal knowledge of or familiarity with a particular matter, alone and without more."

<sup>4</sup> David M. Paciocco, "Judicial Notice in Criminal Cases" (1997) 40 Crim. L.Q. 35 at 47. For those overly enthusiastic about this doctrine, the same author has accurately noted (ibid. at 59):

There is nothing simple about the doctrines and theories of judicial notice. At its core the concept confounds scholars, lawyers and jurists alike. We have yet to even identify adequately when a Court is taking judicial notice and when it is not, or to accept, or reject that all judicial reasoning is a species of judicial notice.

See generally J. Monahan & L. Walker: "Judicial Use of Social Science Evidence after Daubert" (1995) 2 Shepard's Expert and Scientific Evidence 327; "Social Facts: Scientific Methodology as Legal Precedent" (1988) 76 Cal. L. Rev. 877; "Judicial Use of Social Science Research" (1991) 15 Law & Hum. Behav. 571; "Social Science Research in Law: A New Paradigm" (1988) 43 Am. Psychol. 465; "Social Authority: Obtaining, Evaluating and Establishing Social Science in Law" (1986) 134 U. Pa. L. Rev. 477; "Social Frameworks: A New Use of Social Science in Law" (1987) 73 Va. L. Rev. 559; and by Neil Vidmar, "Evaluating Expert Scientific Evidence" (5 November 1999), ADGN/RP-093 at para. 74ff (on Quicklaw in Commentary).

context of family law. But even in the criminal law context, there are examples. In R. v. Edwards Books & Art Ltd., it was said:

I do not accept that in dealing with broad social and economic facts such as those involved here the Court is necessarily bound to rely solely on those presented by counsel. The admonition in *Oakes* and other cases to present evidence in *Charter* cases does not remove from the Courts the power, where it deems it expedient, to take judicial notice of broad social and economic facts and to take the necessary steps to inform itself about them.

The Supreme Court has had no difficulty in taking judicial notice regarding the dangers and effects of drinking and driving<sup>8</sup> or the social problems posed by prostitution and the activities of pimps.<sup>9</sup> There are other examples.<sup>10</sup>

The Monahan and Walker argument for "social framework" as a widespread ticket of admission for social science "evidence" that trumps the usual rules of evidence demonstrates a faith in social science that may be extremely unwarranted." Even a minimal examination of the social sciences raises concern that they are more "social" than "science." It is all too easy to disguise political ideology and advocacy in pseudo-scientific garb and urge its acceptance as "evidence" by judges and juries. The dangers of allowing unrestrained availability of social science resources are very real, especially if the crucial protections that flow from strict adherence to the methods of science are not fully operational."

<sup>6</sup> Justice C. L'Heureux-Dubé, "Making Equality Work in Family Law" (1997) 14 Can. J. Fam. Law 103; Justice C. L'Heureux-Dubé, "Re-examining the Doctrine of Judicial Notice in a Family Law Context" (1994) 26 Ottawa L. Rev. 551.

<sup>7 [1986] 2</sup> S.C.R. 713 at 802.

<sup>8</sup> R. v. Penno, [1990] 2 S.C.R. 865 at 881-82; R. v. Ladouceur, [1990] 1 S.C.R. 1257 at 1279-81. See also R. v. Bonin, [1989] B.C.J. No. 108 (C.A.), regarding judicial notice of drinking and driving risks.

<sup>9</sup> R. v. Downey, [1992] 2 S.C.R. 10.

See R. v. Keegstra, [1990] 3 S.C.R. 697 ("our collective historical knowledge of the potentially catastrophic effects of the promotion of hatred"); and R. v. Seaboyer, [1991] 2 S.C.R. 597 (historical attitudes and beliefs regarding rape complainants). In United States of America v. Saad, [2004] O.J. No. 1148 (C.A.), Moldaver J.A. did his own Internet research regarding the drug known as "ecstasy."

Some commentators have specifically argued that Daubert requires independent research by judges: Michael E. Keasler & Cathy Cramer, "Appellate Courts Must Conduct Independent Research of Daubert Issues to Discover 'Junk Science'" (2006) 90:2 Judicature 62.

Paciocco, above note 4 at 52 notes: "[A]lthough the 'incontrovertibility' requirement for judicial notice of adjudicative facts does not apply strictly in the context, the use of literature in making social context determinations is fraught with difficulty and must be undertaken with caution."

Furthermore, concerns must exist about the ability of judges to intelligently consume such materials on their own without the benefit of critical commentary." There have been some unfortunate precedents. In R. v. Askov, the Supreme Court incorporated empirical data and social science research into determining the appropriate length of time it should take a matter to proceed to trial so as not to violate subsection 11(b) of the Canadian Charter of Rights and Freedoms. Very shortly thereafter, in R. v. Morin, the Court again utilized empirical data from social science research to alter the Askov benchmarks.

In a case where the Supreme Court of Canada adopted the "power imbalance" theory to invalidate apparent sexual consent in certain contexts, <sup>17</sup> it referred to an article representative of the genre by a Professor Coleman, <sup>18</sup> which, in the Court's words, "identified a number of types of relationships, including that of a teacher and student, in which a power dependency relationship is inherent." This reference was echoed in other cases <sup>19</sup> without any independent analysis. The reader may be forgiven for interpreting this as if it were a descriptive statement suggesting that Professor Coleman has some research and data showing this power imbalance in fact, showing that teachers inevitably can manipulate their students and render them incapable of acceptable decision making. Examination of Professor Coleman's article shows no such evidence. Rather, what is clear is that Professor Coleman simply subscribes to an ideology wherein such a power imbalance is a *given*. It is disappointing that the Supreme Court of Canada so uncritically bought into that ideology. <sup>20</sup> Episodes like this

<sup>13</sup> Kenneth R. Foster & Peter W. Huber, Judging Science: Scientific Knowledge and the Federal Courts (Cambridge, MA: MIT Press, 1999) at 148–50.

<sup>14 [1990] 2</sup> S.C.R. 1199.

<sup>15 [1992] 1</sup> S.C.R. 771.

See Carl Baar, "Criminal Court Delay and the Charter" (1993) 72 Can. Bar Rev. 305 at 306, 334, & 333, respectively: Prof. Baar opined that Askov was based upon an "incomplete understanding of the material before it" and that in Morin, the Court acted on "erroneous social facts." He noted that it would have been far preferable to avoid the "inaccuracy of a do-it-yourself approach" by having the matter scheduled for rehearing with all parties and intervenors given an opportunity to present evidence.

<sup>17</sup> Norberg v. Wynrib, [1992] 2 S.C.R. 226 at 255.

<sup>18</sup> Phyllis Coleman, "Sex in Power Dependency Relationships: Taking Unfair Advantage of the 'Fair' Sex" (1988) 53 Alb. L. Rev. 95.

<sup>19</sup> R. v. Saint-Laurent (1994), 90 C.C.C. (3d) 291 (Que. C.A.); R. v. G.M. (1992), 77 C.C.C. (3d) 310 (Ont. C.A.); R. v. Matheson (1999), 44 O.R. (3d) 557 (C.A.); and R. v. Audet (1996), 106 C.C.C. (3d) 481 (S.C.C.).

<sup>20</sup> This "inherent power imbalance" position has its fundamental (and seminal) pronouncement in the infamous Mackinnon-Dworkin critique of all heterosexual activity in our allegedly patriarchal society. Consent is obviously not a meaningful concept for someone for whom rape and intercourse "are difficult to distinguish": Dan Greenberg & Thomas

(which have still not been undone) raise issues about ex parte judicial consumption of social science materials.

The utility of an adversarial examination of purported social science information has been noted by the Supreme Court. In R. v. Corbett, 21 Dickson C.J. referenced the scientific inadequacy of social science research at hand (namely, jury studies) as follows:

The dissent in the Court of Appeal of British Columbia relied heavily upon two sociological studies which purported to demonstrate that jurors are incapable of distinguishing between evidence that goes to guilt and evidence that

H. Tobiason, "The New Legal Puritanism of Catherine Mackinnon" (1993) 54 Oh. St. L.J. 1375 at 1422, n.281, and see generally *ibid.*, especially section C, "The Problem of Consent and Coercion." Mackinnon's definition of consent, whereby it can be negatived by "coercion" — "even something like love" — is an example of "the fallacy of persuasive definition" (implicitly infusing a general term with a contingent and rhetorically convenient meaning); see also Elfrieda Schroeder, "Catherine's Wheel: Mackinnon's Pornography Analysis as a Return to Traditional Christian Sexual Theory" (1993) 38 N.Y.L. Sch. L. Rev. 225 (and references therein to Mackinnon's work); Cathy Young, "The New Madonna/ Whore Syndrome: Feminism, Sexuality and Sexual Harassment" (1993) 38 N.Y.L. Sch. L. Rev. 257.

Because of women's place in society, according to Mackinnon and Dworkin, there is in fact no such thing as a valid "consent" by women in our society. This bizarre concept of consent, to put it mildly, is obviously erroneous to all but the most ardent radical feminists, and like other unacceptable doctrines, it has tried to survive by mutating into a more palatable form. Trying to limit the alleged power imbalance to specified professions or social roles may make the concept superficially more palatable, but it does not make it more valid.

The inherent power imbalance ideology also has another equally nefarious point of origin: Freudian psychoanalytic theory. The Freudian construct of "transference," as vacuous as any of Freud's ideas, is often invoked in aid of the power imbalance construct as if this rubric explained, as opposed to merely labelled. Coleman is a follower of Freudian therapeutic relationship cant: see Phyllis Coleman, "Sex between Psychiatrist and Former Patient: A Proposal for a 'No Harm, No Foul' Rule" (1988) 41 Okla. L. Rev. 1 at 4ff. Someone who traces an "aspect of transference to the Oedipus complex" is obviously not a commentator in whom anyone can have any degree of confidence regarding ideas of substance.

In Patricia M.L. Illingworth, "Patient-Therapist Sex: Criminalization and Its Discontents" (1995) 11 J. Contemp. Health L. & Pol'y 389 at 399-400, the author in restrained terms debunks the transference ideology as a basis for denying consent. She then goes on to debunk Coleman's "power imbalance" argument as well: ibid. at 401-2.

See also Sheppy Young, "Getting to Yes: The Case against Banning Consensual Relationships in Higher Education" (1996) 4 Am. U.J. Gender & L. 269 for an excellent discussion of these issues (though that author is unwittingly gullible regarding the Freudian transference cant). It is a real shame that references such as these were not brought to the attention of the Court before it so unwittingly bought into Coleman's position.

[1988] I S.C.R. 670.

goes to credibility. Those studies have been analyzed with great sophistication by the intervener, the Attorney General of Canada, and the scientific method of the studies has been cast into doubt. Moreover, the Attorney General of Canada refers to other sociological and psychological studies that call into question the conclusions of the data relied upon by Hutcheon J.A. in dissent. It is not possible to undertake a complete analysis of all these studies for the purposes of this judgment, but the conflicting results and the inherent limitations of such investigations should cause the Court to be wary of relying upon the data adduced by the appellant before the Court of Appeal.<sup>22</sup>

Therefore, if this utilization of social science information by means of the doctrine of judicial notice does develop into a relatively frequent occurrence, simple fairness and the requirements of good science demand that the materials be made fully available to the parties and an opportunity for comment and criticism be allowed before judicial acceptance and reliance take place. As one commentator noted, "[t]he problems of fairness to the parties are generated in the silent use of facts judicially noticed. Without disclosure prior to the decision, the parties must guess at the Judge's appreciation of how the world turns and will not have the opportunity of displaying contrary data to support a competing view."<sup>23</sup>

If a court feels that further research is required and further information is necessary for a decision, the parties must have an opportunity to participate in the court's obtaining and utilization of such materials. This is simply what justice requires, not to mention the additional reliability of the decision making that will be fostered.

<sup>22</sup> Ibid. at 693, para. 40.

<sup>23</sup> R.J. Delisle, Annotation to R. v. R.D.S. (1997), 10 C.R. (5th) 1 at 7.