SUPREME COURT OF QUEENSLAND

IMPORTANT NOTICE:
THESE REASONS ARE SUBJECT TO THE FOLLOWING NON-PUBLICATION ORDER MADE 3 FEBURARY, AND VARIED ON 28 FEBRUARY 2014

"Save for publication for the purposes of the prosecution, defence and conduct of the proceeding, the reasons for decision on the application not be published until a verdict has been delivered in the trial of Gerard Robert Baden-Clay in relation to the charge that on or about the nineteenth day of April 2012 at Brisbane in the State of Queensland Gerard Robert Baden-Clay murdered Allison June Baden-Clay."

CITATION:	*R v Baden-Clay* [2014] QSC 156
PARTIES:	**R** (respondent) **v** **GERARD ROBERT BADEN-CLAY** (defendant/applicant)
FILE NO:	467 of 2013
DIVISION:	Trial Division
PROCEEDING:	Applications under s 590AA *Criminal Code* 1899 (Qld) to exclude expert evidence from being admitted at trial.
ORIGINATING COURT:	Supreme Court of Queensland
DELIVERED ON:	28 February 2014
DELIVERED AT:	Brisbane
HEARING DATE:	3 February 2014
JUDGE:	Applegarth J
ORDERS:	1. **The application for the exclusion of certain parts of the evidence of Dr Milne is allowed in part.** **2. Subject to the submissions of the parties as to the form of rulings in relation to the evidence of Dr Milne:** **(1) Dr Milne may give evidence of his observation of a probable haemorrhage on the interior left chest wall ("the chest haemorrhage").** **(2) Dr Milne may give evidence of the possibility that the force which caused the chest haemorrhage was a blunt force.**

(3) Dr Milne not include the words "from an assault" when he initially says in his evidence-in-chief that the chest haemorrhage could have been the result of blunt force.

(4) Dr Milne may explain to the jury what he means by "blunt force" and to give examples of it, not limited to force from an assault.

(5) Dr Milne may give evidence about the existence of the granular brown material between the left side of the brain and the dura, his observations of that material and a comparison between the left and right cerebral hemispheres.

(6) The evidence of Dr Milne to the effect that the material beneath the right sided dura "may possibly represent subdural haemorrhage" not be led by the prosecution.

(7) Unless Dr Milne is cross-examined about the possible causes of the granular brown material between the left side of the brain and the dura and gives evidence during his cross-examination of a possible subdural haemorrhage, Dr Milne may give not evidence that an assumed or possible subdural haemorrhage could have been the result a moderate degree of blunt force and that if there was a subdural haemorrhage, then it was a likely cause of death.

(8) Dr Milne (or a dental expert) may give evidence of a personal observation of a small mesio-incisal chip on tooth 33, which may or may not have been a recent chip.

(9) Dr Milne may not give evidence-in-chief on the assumption that the chip was of a recent injury, that it indicates an impact in the mouth region or that it could have been the result of blunt force from an assault.

(10) Dr Milne may give his reasons for concluding that the circumstances favour an unnatural cause of death over a natural cause of death.

(11) Dr Milne may not give evidence that possible causes of death are smothering and strangulation.

(12) Dr Milne may give evidence of significant soft tissue loss and that if there had been injuries at certain sites, then those injuries could have been

destroyed or obscured by post-mortem changes, and explain how areas of injury (ante-mortem and post-mortem) could have been destroyed or obscured.

3. **Any submissions as to the form of the rulings in the previous paragraph be made on a date to be fixed in the week commencing 3 March 2014.**

4. **The application for the exclusion of the evidence of Robert Hoskins, Leslie Griffiths, Margaret Stark and David Wells is refused.**

5. **The applications in paragraphs 3, 4 and 5 of the application filed 18 September 2013 are dismissed.**

6. **The non-publication order made on 3 February 2013 be varied by the insertion in paragraph 1 of the words "Save for publication for the purposes of the prosecution, defence and conduct of the proceeding" so that the orders, as varied, read:**

   (1) Save for publication for the purposes of the prosecution, defence and conduct of the proceeding, the reasons for decision on the application not be published until a verdict has been delivered in the trial of Gerard Robert Baden-Clay in relation to the charge that on or about the nineteenth day of April 2012 at Brisbane in the State of Queensland Gerard Robert Baden-Clay murdered Allison June Baden-Clay.

   (2) The media, subject to the undertakings that have been given, is free to report the fact that these applications have been made and are able to report the evidence to which the applications relate and the submissions that have been made in relation to them, subject to the undertakings given that the reports be fair, balanced and accurate and that those reports be reviewed by a lawyer prior to publication.

CATCHWORDS: CRIMINAL LAW – EVIDENCE – ADMISSIBILITY – OPINION EVIDENCE – EXPERT OPINION – MEDICAL EVIDENCE – whether evidence given by a forensic pathologist relating to 'possible' or 'suspected' injuries is admissible – whether evidence given by a forensic pathologist as to possible causes of death, when the cause of death is certified as undetermined is admissible.

CRIMINAL LAW – EVIDENCE – JUDICIAL

DISCRETION TO ADMIT OR EXCLUDE EVIDENCE – NATURE OF DISCRETION – GENERALLY – whether expert should be permitted to speculate on a possibility of which there is little or no evidence – whether permitting the expert to speculate would be unfairly prejudicial to the defendant

CRIMINAL LAW – EVIDENCE – ADMISSIBILITY – OPINION EVIDENCE – EXPERT OPINION – MEDICAL EVIDENCE – whether interpretation of scratch marks is within the common experience of laypersons – whether evidence of injury interpretation is based on a reliable body of knowledge or experience.

Criminal Code 1899 (Qld) s 590AA

Martinez v Western Australia (2007) 172 A Crim R 389; [2007] WASCA 143, cited
Murphy v The Queen (1989) 167 CLR 94; [1989] HCA 28, cited
R v Anderson (2000) 1 VR 1; [2000] VSCA 16, cited
R v Barry [1984] 1 Qd R 74, cited
R v Berry (2007) 17 VR 153; [2007] VSCA 202, followed
R v Bonython (1984) 38 SASR 45, followed
R v Matthew (2007) 177 A Crim R 470; [2007] VSC 398, cited
R v Middleton (2000) 114 A Crim R 258; [2000] WASCA 213, cited
R v Sica [2013] QCA 247, applied
R v Stockton (1981) 3 A Crim R 384, cited
R v Turner [1975] QB 834, cited
Straker v R (1977) 15 ALR 103, cited
Velveski v the Queen (2002) 76 ALJR 402; [2002] HCA 4, cited

COUNSEL: M J Byrne QC for the defendant/applicant
D C Boyle for the respondent

SOLICITORS: Peter Shields Lawyers for the defendant/applicant
Director of Public Prosecutions (Qld) for the respondent

[1] Allison Baden-Clay died in suspicious circumstances. There is no evidence that she died of a natural cause. Her husband is charged with having murdered her on or about 19 April 2012. On 20 April 2012 he reported to police that she was missing. Ten days later her body was found underneath a bridge on the bank of a creek about 14 kilometres from her home. By then the body was badly decomposed.

[2] The prosecution case includes the following circumstantial evidence:

- that on 19 April 2012 Allison was normal and made preparations to attend a conference the next day;

- the defendant was involved in an extra-marital affair and a few months earlier had promised the other woman that he would leave Allison and live with her; a commitment reinforced in a 3 April 2012 e-mail that he intended to stick to his promise and would be "separated by 1 July";

- the defendant's poor financial position, prompting him in March 2012 to seek a loan of about $300,000 from a friend as his last option;

- death benefits and superannuation for Allison totalled almost $1M;

- the advice given by a relationship counsellor to Allison and the defendant that they should set aside 10 to 15 minutes every second night so Allison could explain to Gerard the impact the affair had on her;

- on the night of 19 April 2012 a number of residents who lived near the defendant's home heard noises which included yelling, the scream of a female and a dull thud followed by a car leaving;

- Allison's blood in the back of the recently-acquired family vehicle;

- residents near the bridge where the body was found heard noises on the night of 19 April 2012, including thuds and a car door being shut;

- analysis of the defendant's mobile phone which was inconsistent with his version to police that he was asleep between 10pm and 6am;

- despite extensive police inquiries, only one witness noticed a person matching the general description of Allison walking in her area: making it improbable that she took her usual early morning walk on 20 April 2012, let alone walked the long distance to the area in which her body was found.

[3] The forensic pathologist who conducted the autopsy, Dr Milne, could not determine a cause of death because the effects of decomposition concealed evidence of the cause of death. But certain observations he made of the deceased were suggestive of blunt force trauma. The defendant seeks the exclusion of parts of Dr Milne's report about these abnormalities and their possible cause.

[4] The autopsy report identified possible causes of death which could not be excluded. These included smothering and strangulation. Dr Milne could put these no higher than possibilities because any soft tissue injuries that may have been sustained to the face or neck would have been destroyed or obscured by decomposition and other post-mortem changes. The defendant seeks the exclusion of Dr Milne's evidence about possible smothering and strangulation.

[5] The prosecution also relies upon the presence of scratch marks on the defendant's face. These were first noticed by a police officer who attended the Baden-Clay home the morning Allison was reported missing. The defendant claimed to the police that day that he had cut himself shaving, and the next day he told the same thing to doctors he consulted.

[6] The prosecution proposes to call expert witnesses to support its case that the wounds were inflicted by Allison during a physical assault upon her by the

defendant and thereby to discredit the assertion that the scratch marks were caused by a razor. It also relies upon the defendant's version of having cut himself whilst shaving as a lie showing a consciousness of guilt.

[7] The defendant seeks the exclusion of the evidence of the experts about the scratch marks on the ground that scratches are well within the general knowledge and common sense of juries, making the opinion of an expert unnecessary. The defendant also raises an issue about whether there is a sufficient body of scientific literature on shaving type injuries and the dynamics of fingernails.

[8] Each part of the application relates to different types of expert evidence: Dr Milne's evidence relates to his post-mortem examination, whilst the experts' evidence about scratch marks relates to injuries to the defendant. The evidence of the experts is relied upon, as part of a circumstantial case, to invite the jury to infer that there was a physical conflict between the defendant and Allison, and that that he murdered her.

The objections to Dr Milne's evidence and the prosecution's response

[9] The objections to Dr Milne's evidence fall into two broad categories. The first relates to the abnormalities found on autopsy and what is said about their possible cause: blunt force trauma from an assault. The second relates to the opinion that other possible causes of death from inflicted means are smothering and strangulation.

[10] In general terms, the objections are that the evidence is not supported by objective evidence and involves impermissible speculation. The defendant also submits that if the evidence is admissible, it should be excluded in the exercise of the court's discretion because it is unfairly prejudicial.

[11] The defendant relies upon the proposition that an expert will not ordinarily be permitted to speculate as to inferences when there is no evidence that could support such an inference.[1] An expert may be invited to consider whether a hypothesis is consistent with the known facts, so long as the hypothesis is sought to be drawn from facts which may be established by the evidence and the assessment of such facts is within the witness's expertise.[2]

[12] As to the first category of evidence to which objection is taken, the prosecution responds that Dr Milne should be able to give evidence of his findings about abnormalities of note, along with his expert opinion about whether they could have been caused by blunt force trauma consistent with the prosecution case or other causes, such as falling from the bridge. Without the assistance of an expert pathologist, the jury would be required to speculate about the nature and possible causes of these abnormalities, a matter outside the knowledge of non-qualified persons.

[13] As to the second category, the prosecution submits that an expert like Dr Milne is able to comment on a hypothesis as to possible causes of death consistent with the evidence, whether that hypothesis supports the prosecution case or is inconsistent with it.

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1 *R v Berry* (2007) 17 VR 153 at 173-4, [69]; [2007] VSCA 202 at [69].

2 Ibid citing *Straker v* R (1977) 15 ALR 103.

[14] The prosecution also contends that any possible unfair prejudice can be addressed by the expert giving evidence in suitably qualified terms and by appropriate directions at trial.

Dr Milne's evidence

[15] On 30 April 2012 Dr Milne attended the scene where the body was found. The body was under the bridge over Kholo Creek. It was severely decomposed. This was consistent with death having occurred 11 days earlier. There were no injuries typical of what is seen when a body is moved by running water. Dr Milne conducted an autopsy and produced a report. He reported significant soft tissue loss. His ability to observe any signs of recent injury was:

> "significantly limited by changes of decomposition. In the previously described areas where there is significant soft tissue loss, particularly the facial region, forearms and left lower leg, such insect larval activity raised the possibility of pre-existing injuries at these sites. However, post-mortem changes prevent this assessment."

[16] Ultimately, due to the state of decomposition, Dr Milne was unable to determine the cause of death. This was because "the effects of decomposition destroyed or concealed evidence of the cause of death." However, Dr Milne explained that the circumstances indicated an unnatural cause of death rather than a natural cause. These circumstances included the deceased's medical history and that the examination did not find any significant pre-existing natural disease.

[17] Three abnormalities were detected during the post-mortem examination: (1) apparent bruising on the interior left chest wall; (2) a possible subdural haemorrhage and (3) a chipped tooth. Each is discussed in further detail below. Dr Milne could not exclude that the three possible injuries could have resulted from a fall from a height. He also reported that they "could also have been the result of blunt force from an assault" (emphasis in original).

[18] The report continued: "Other possible causes of death from inflicted means are smothering or strangulation" and Dr Milne explained his reasons for these possibilities as well as reporting the absence of soft tissue and other injuries that would evidence such a cause of death.

[19] Interpretation of toxicology results was significantly limited by decomposition. An anti-depressant and its metabolite were detected in three specimens. Interpretation of the levels was very difficult because:

- significant decomposition may have altered the level of the drug in the blood;
- the only blood available was from the liver, whereas the ideal specimen is from the blood vessels in the legs; and
- the anti-depressant may undergo post-mortem redistribution, so that blood samples from different parts of the body may give significantly different results.

There was insufficient evidence, therefore, to attribute the cause of death to drug toxicity. However, it could not be excluded as a cause of death. Diatom testing showed no evidence of drowning; however this did not exclude drowning as a possible cause of death.

The autopsy report's conclusion and the parts of it objected to

[20] The report's conclusion stated that the cause of death was certified as "undetermined". It continued:

> "The degree of decomposition was significant and this limited interpretation of all facets of the post-mortem examination. It is most likely that the effects of decomposition destroyed or concealed evidence of the cause of death.
>
> The circumstances are certainly in favour of an unnatural cause of death over a natural cause of death. Her past medical history included asthma. This can be a fatal disease; however it does not appear to have been very severe in her case and therefore is not considered to be a possible cause of death. Post-mortem examination did not reveal any findings to indicate any other significant pre-existing natural disease.
>
> Drowning has to be considered a possible cause of death given that her body was found near a creek. The post-mortem diagnosis of drowning can be a difficult determination, even in bodies without decomposition. In some cases there is minimal positive evidence to attribute death to drowning. It would be very difficult to find signs of drowning in this case due to the degree of decomposition.
> As the body was found below a bridge reported to be 14m high, injures from a fall from a height need to be considered as a possible cause of death. As she was found directly underneath the bridge there would have to have been some movement of the body after impact with the ground or water. This possibly could have been by herself, by another person or by the tide.
>
> With a fall from such a height I would expect injuries to have been identified at post-mortem examination if the fall was onto the ground. However, if the fall was onto water the degree of injury could be less. If there had been a fall into water, this could have predisposed her to drowning.
>
> No definite injuries were detected at post-mortem examination**, however there were possible injuries:**
>
> 1. **Subdural haemorrhage. If this was a true injury it indicates a blunt force impact to the head, probably of a moderate degree of force. Subdural haemorrhage can occur without a skull fracture. If death was the result of a subdural haemorrhage, it could have taken hours to occur after the time of impact. Impaired consciousness from a subdural haemorrhage could also predispose to drowning. There is no evidence to suggest she had a bleeding tendency.**
>
> 2. **Chipped tooth. This may or may not have been recent. If this was the result of a recent injury it indicates an impact to**

the mouth region, probably of a mild or moderate degree of force.

3. **Bruising on the interior left chest wall. If this was a true injury in indicates an impact to the chest region, probably of a mild degree of force.**

It cannot be excluded that the three possible injuries above could have resulted from a fall from a height.

The possible injuries could also have been the result of blunt force from an assault.

Other possible causes of death from inflicted means are smothering and strangulation. Both of these methods may leave only minimal soft tissue injuries to the face and neck. As there were marked changes of decomposition involving these area, smothering and strangulation are possible causes of death. The larynx and hyoid bone in the neck were not injured; however strangulation does not always cause injuries to these structures, for example when a soft broad ligature is used. Such a ligature including clothing, and it is therefore possible that she had been strangled with the jumper she was wearing. As previously noted, the jumper may have come to be located up around her neck region by other means.

In addition, soft tissue injuries could have been destroyed or obscured by post-mortem changes. Maggots are generally attracted to moist areas of the body, such as natural body cavities and areas of injury (ante-mortem and post-mortem). Therefore, there could have been ante-mortem injuries at any of the sites of soft tissue loss described under 'Signs of post-mortem change' earlier in this report. With regard to cause of death, the most significant regions of the body would be the head and neck.

The difficulties of toxicology interpretation have been previously discussed. Death from drug toxicity (sertraline with or without the contribution of alcohol), cannot be excluded as a cause of death. Similar to a subdural haemorrhage, the process of death with drug toxicity can take some time and could predispose to drowning.

Death could also have resulted from the combined effects of the possibilities mentioned above." (emphasis added)

[21] The defendant seeks the exclusion of the evidence which I have highlighted in the conclusion and some corresponding passages in the body of the report about possible injuries. Because the defendant objects to Dr Milne giving evidence about the three possible injuries that appear in his report, I shall summarise the evidence given by him in his report about each of them, as clarified in his subsequent evidence at the committal and on the hearing of this application.

Bruising to the interior chest wall

[22] His report on the thoracic cavity stated:

> "The ribs show no evidence of fracture, however there is an area of apparent haemorrhage overlying the anterior left 4th to 6th ribs on the interior aspect. Dissection of the soft tissues in this area shows apparent haemorrhage."

[23] Dr Milne describes an area of red discolouration on the interior chest wall. In his report Dr Milne describes this abnormality as an "apparent bruise on the left inner chest wall". He further stated that "if this was a true injury it indicates an impact to the chest region, probably of a mild degree of force."

[24] Studying the abnormality both microscopically and with the naked eye Dr Milne was unable to be certain that it was an injury. However, he stated that "it was relatively distinct, I tend to favour that it's most likely a bruise but I can't be sure about that". He elaborated on this at the hearing:

> "I think it is most likely a bruise, so more likely than not. I can't really give any better, you know, estimation than that … with the naked eye, it looked most likely to be a bruise rather than a post-mortem effect. I couldn't confirm it microscopically. I'd like to see microscopic confirmation before I definitely said it was a bruise."

[25] Dr Milne confirmed that if this abnormality was a bruise it would have involved the application of mild blunt force. He was unable to observe any external bruising corresponding to the internal abnormality. This may have been due to decomposition or the fact it is possible to bruise internally without any external signs.

[26] Dr Milne was unable to say whether this abnormality occurred before or after death.

Subdural haemorrhage

[27] Dr Milne's statement that there was a possible subdural haemorrhage was based on the findings of a neuropathology examination. The relevant findings of this examination were that:

> "Underneath the left cerebral convexity there is a modest amount of granular brown material within which there are scattered insect casings. This material is not present beneath the right sided dura **and may possibly represent subdural haemorrhage which has undergone autolysis.** It may also represent post mortem debris. The underlying left hemisphere shows marked autolysis. The right cerebral hemisphere shows similar marked autolysis but retains a pale colouration." (emphasis added)

By way of summary of his finding, Dr Milne reported:

> "On naked eye examination there was some granular brown material between the left side of the brain and the dura. **The appearance raised the possibility of subdural haemorrhage, however due to the effects of decomposition this could not be confirmed on naked eye or microscopic examination. It remains a possibility that there was a subdural haemorrhage**." (emphasis added)

In the conclusion to the autopsy report Dr Milne states that:

> "If this was a true injury it indicates a blunt force impact to the head, probably of a moderate degree of force. Subdural haemorrhage can occur without a skull fracture."

[28] At the committal hearing Dr Milne accepted that his examination was limited by the decomposition of the brain. Decomposition was severe with Dr Milne noting "it's the most decomposed brain I've seen and removed from a body successfully". He did not observe any fracture to the skull. Nor was he able to observe any soft tissue damage given the state of decomposition.

[29] Due to the significant decomposition of the brain and surrounding soft tissue the highest Dr Milne could put the likelihood of the granular material indicating a subdural haemorrhage was a possibility.

[30] If this abnormality was actually a haemorrhage, then Dr Milne's opinion was that it could have been caused by a moderate degree of force. Also, if it was a haemorrhage then it was, in the context of the examination "the most likely cause of death".

Chipped Tooth

[31] In his report Dr Milne adopts the findings of a dental specialist. Those findings include:

> "Examination of the teeth and jaws of the deceased demonstrates no obvious signs of trauma apart from a small mesio-incisal chip on tooth 33, which may or may not be of recent origin"

[32] Dr Milne was unable to say whether the chipped tooth was a recent injury or not. He could give no opinion as to when the chip may have occurred.

Smothering or Strangulation

[33] Because Dr Milne concluded that the cause of death should be certified as "undetermined", he discussed possible causes of death. These included smothering and strangulation. Those possibilities were advanced for two reasons:

- Both would leave only minimal soft tissue injuries to the face and neck. As there had been significant decomposition of the soft tissue in these areas any physical evidence may have been lost.

- While there was no injury to the larynx or the hyoid bone, strangulation by a broad soft ligature may not always cause damage to those areas.

At the hearing Dr Milne clarified the second point by stating that damage to the hyoid bone would "almost always" occur in manual strangulation. Even with a ligature, damage to the hyoid bone would occur "more often than not".

[34] Dr Milne accepted that there was no physical evidence to support either of those possible mechanisms of death. If one of those mechanisms was the cause of death then decomposition of the soft tissue could have removed any physical evidence. He acknowledged that he was opening up possibilities about smothering and strangulation as a possible cause of death without supporting physical evidence.

The admissibility and exclusion of expert evidence of the kind given by Dr Milne

[35] The observation of a suitably qualified expert of an abnormality found on examination of a body is, as a general rule, admissible on a charge of murder.[3] An expert such as Dr Milne also is entitled to give opinion evidence about the cause of a physical condition observed during a post-mortem examination, provided the expert does not speculate on a possibility of which there is no evidence.[4]

[36] A medical expert can give evidence that a deliberate act was a possible cause of death or injury, provided the opinion is not speculative and unsupported by the evidence. For example an expert medical witness, based upon an examination of a child's body, can express the opinion that induced asphyxia was a possible cause of death.[5]

[37] Opinion evidence, like any other evidence, is subject to the principle of relevance. As the learned author of the Australian edition of *Cross on Evidence* states:

> "Thus there comes a point where an inference, although expressed by a qualified person, enters upon the field of mere speculation and will therefore be rejected as such"[6]

Speculation about possibilities left open by the evidence may be excluded because it is not relevant, or insufficiently relevant[7] to warrant admission.

[38] The principle about impermissible speculation was stated by Redlich JA (with whom the other members of the Victorian Court of Appeal agreed) in *R v Berry*:

> "… an expert will not ordinarily be permitted to speculate as to inferences when there is no evidence that could support such an inference. Where there is such evidence, the expert may testify that such circumstances are consistent with such an explanation. Thus an expert may be invited to consider whether a hypothesis is consistent with the known facts, so long as the hypothesis is sought to be drawn from facts which may be established by the evidence and the assessment of such facts is within the witness's expertise."[8]

[39] As to the discretionary exclusion of evidence, Gibbs J observed in *Straker v R* "there may be circumstances in which the evidence is so prejudicial, and is of so little weight, that the judge in his discretion should exclude it."[9]

Should Dr Milne's evidence about bruising on the interior left chest wall be allowed?

[40] Dr Milne's evidence of an abnormality on the interior left chest wall, particularly that his examination and dissection showed an apparent bruise or haemorrhage on the interior left chest wall, is an observation made during examination. It is

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3 *Straker v R* (1977) 15 ALR 103 at 106.

4 *Martinez v Western Australia* [2007] WASCA 143 at [400] citing *Straker v R.*.

5 *R v Matthey* (2007) 177 A Crim R 470 at 478 [160]; 483 [183]-[184].

6 JD Heydon *Cross on Evidence* Vol. 1 (LexisNexis Butterworths NSW 2014) 29006, [29010].

7 In such a case, the evidence may have some probative value which is balanced against the disadvantage of receiving it. Such evidence may be described as "irrelevant" according to the general theory of relevance discussed by Hoffmann in "Similar Facts After Boardman" (1975) 91 *LQR* 193 at 204-206.

8 (2007) 17 VR 153 at 173-174 [69]; [2007] VSCA 202 at [69].

9 *Straker v R* (1977) 15 ALR 103 at 109; see also *R v Stockton* (1981) 3 A Crim R 384.

admissible. Dr Milne's reference in his report of an "apparent haemorrhage" in the chest wall was explained to be an assessment that the abnormality he observed was probably a haemorrhage. The conclusion was not a matter of speculation where there was no evidence to support it. It was based on his observation of an abnormality.

[41] The fact that Dr Milne could not be certain that the abnormality was a haemorrhage does not render his evidence inadmissible. His considered opinion was that it probably was a haemorrhage. It would be remarkable if the only form of expert evidence which was admissible of a description of an apparent injury was one which was expressed in terms of certainty. The defendant did not contend for such a rule. Instead, he submitted that the Court looks at the assessment, be it possible, likely or definite, and if it is admissible considers its adverse effects to an accused. In doing so, regard is had to where the assessment sits on the sliding scale of possible/likely/definite.

[42] In a case in which an expert cannot be certain that an observed condition is a particular injury, but can say it probably is, the evidence generally should be admitted.

[43] The next issue is whether, whilst admissible, it should be excluded. The Court of Appeal in *R v Sica* stated:

> "Exclusion on the ground of unfairness should occur where the prejudicial effect of its admission would be substantial and outweigh its probative value. Prejudicial effect means the risk of improper use. Evidence is not unfairly prejudicial merely because it makes it more likely that the defendant will be convicted. Unfair prejudice exists where there is a real risk that the evidence will be misused by the jury in some unfair way. The concept of misuse directs attention to the way in which evidence is used, and directions that are apt to reduce the risk that evidence is not improperly used."[10]

In considering the exercise of the discretion to exclude, it is appropriate to recall the reasons why such expert evidence is admissible. The main reason is that a person "without instruction or experience in the area of knowledge or human experience" would not be able to form "a sound judgment on the matter without the assistance of witnesses possessing special knowledge or experience in the area".[11]

[44] The evidence about the abnormality observed on internal examination of the chest is probative of bodily injury occasioned through force. Whether or not the bruise was sustained before or after death is not the point, since the chest injury is not relied upon as a cause of death. It is relied upon as evidence that an injury was sustained; which may help the prosecution to negative the hypothesis that death was the result of a non-violent, drug-induced suicide.

[45] The fact that Dr Milne cannot be certain that the observed condition was a bruise is something which he will be required to state and explain in his evidence-in-chief, and under cross-examination. The fact that he cannot be certain may be the subject of counsel's address to the jury, and it may be referred to in the trial judge's summing-up, thereby reducing the risk that the jury will misuse the evidence.

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10 [2013] QCA 247 at [113] (footnotes omitted).

11 ibid at [127] citing *R v Bonython* (1984) 38 SASR 45, 46-47.

[46] I conclude that the evidence is not unfairly prejudicial. I decline to exercise the discretion to exclude it. Dr Milne should be permitted to give evidence of his observation of the probable haemorrhage on the interior left chest wall.

Should Dr Milne's evidence about the abnormality's cause be allowed?

[47] If, as Dr Milne considers, the chest abnormality was probably a haemorrhage, then it is said to indicate "an impact to the chest region, probably of a mild degree of force". In his report Dr Milne states that it "cannot be excluded" that this and two other possible injuries (to be discussed below) "could have resulted from a fall from a height". He continues that the possible injuries "could also have been the result of a blunt force from an assault" (emphasis in original).

[48] As noted, a medical expert can give evidence that a deliberate act was a possible cause of death or injury, provided the opinion is not speculative and unsupported by the evidence. The proposition that an injury to the chest would be the result of an impact to the chest region probably of a mild degree of force is an expression of expert opinion. It is admissible. It could hardly be described as speculative. Dr Milne can express the opinion that blunt force trauma is a possible cause of bruising.

[49] Likewise, an expert such as Dr Milne can be invited to express an opinion as to whether the apparent injury to the chest wall was the result of blunt force "from an assault". His opinion that the injury to the chest could have resulted from blunt force "from an assault" is admissible since it expresses an opinion about the prosecution hypothesis that the deceased was assaulted by the defendant. There is circumstantial evidence which supports a conclusion that Allison Baden Clay was assaulted.

[50] But the opinion that the chest injury could have been the result of blunt force "from an assault" if given orally in that form, may have a tendency to leave the impression that Dr Milne, as an expert, has selected blunt force "from an assault" as a more likely cause of injury than blunt force from some other source.

[51] Dr Milne might be expected to explain to the jury what he means by "blunt force" and to give examples of it, not limited to force from an assault. The risk that the jury may unfairly attribute to Dr Milne the opinion that the only type of blunt force that could have caused the injury was blunt force "from an assault" should be avoided. This can be done by Dr Milne not including the words "from an assault" when he initially says in his evidence-in-chief that the injury could have been the result of blunt force. This, in conjunction with his explanation that blunt force may be from an assault, will permit the prosecution to submit to the jury that the blunt force, which Dr Milne says could have caused the chest injury, was from an assault. However, Dr Milne should not be permitted to give his evidence about blunt force by reference only to blunt force "from an assault".

Should Dr Milne's evidence about a possible subdural haemorrhage be allowed?

[52] There is an argument that Dr Milne's evidence about a possible subdural haemorrhage is admissible because it is his description of an observed abnormality. His description of the abnormality as a possible subdural haemorrhage is part of that observation, based upon his professional expertise and experience. On this argument, it is permissible to express the opinion that the abnormality was a

possible subdural haemorrhage because it was based on his observation. That opinion is supported by the absence of similar discolouration in other parts of the brain.

[53] The competing argument is that the description of the abnormality is little more than a speculative possibility. For the reasons which follow, it is unnecessary to decide whether the evidence that the observed granular brown material "may possibly represent subdural haemorrhage" is what some authorities describe as "technically admissible".

[54] If the evidence is "technically admissible", then it should be excluded because its slight probative value is outweighed by its highly prejudicial nature.[12] A matter which Dr Milne could put no higher than a mere possibility (as distinct from a likely injury) would be the foundation for a hypothesis that:

- the defendant caused a subdural haemorrhage; and
- the subdural haemorrhage was caused by a moderate (as distinct from mild) degree of force; and
- it was the most likely cause of death.

[55] There are arguments that the risk of unfair prejudice could be reduced. As with the probable haemorrhage to the chest, the risk of the jury misusing the evidence in some unfair way might be reduced by the qualified nature of Dr Milne's assessment (in this instance a mere possibility and not a probability) being emphasised at the time the evidence is given and being the subject of appropriate comment in the trial judge's summing up. Also, it might be argued that allowing Dr Milne to remark upon the area of discolouration, but not to identify it as a possible subdural haemorrhage, may leave the jury to speculate that the area is in fact a haemorrhage, and to assign a higher probability to it than Dr Milne is prepared to. But that risk can be reduced by the jury being instructed not to speculate about the nature of the things observed during autopsy and their possible cause.

[56] The case for the discretionary exclusion of the evidence that the granular brown material "may possibly represent subdural haemorrhage" is much stronger than the case for the discretionary exclusion of a probable haemorrhage on the interior chest. The latter was assessed as a likely, not merely possible, injury. The expert evidence about a possible subdural haemorrhage carries a real risk of being invested with more probative value than it warrants, with the jury seizing upon this possible injury because an expert says it is the most likely cause of death. If, despite cautions, the jury likened it to a probable injury then the defendant would be highly prejudiced on the issue of the cause of death and the amount of force used to kill. A possible injury which, if real, would be the most likely cause of death might be roughly equated by the jury with an injury which probably killed the deceased. Given the low probability, based on Dr Milne's evidence, that the area is in fact a subdural haemorrhage, and the prejudicial use to which the evidence might be put as proving a violent cause of death, the evidence about a possible subdural haemorrhage should be excluded as a matter of discretion. The prejudicial effect of it being given undue significance would be high and outweigh its slight probative value.

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12 *R v Stockton* (1981) 3 A Crim R 384 at 390, 391.

[57] I will rule that the evidence of Dr Milne to the effect that the material beneath the right sided dura "may possibly represent subdural haemorrhage" not be led by the prosecution. Dr Milne will not be precluded from giving evidence about the existence of the granular brown material between the left side of the brain and the dura, his observations of that material and a comparison between the left and right cerebral hemispheres. This is evidence of his observations, not an impermissible assessment of whether an area observed may represent subdural haemorrhage.

[58] If Dr Milne is cross-examined about the possibility that the area of granular brown material represents post-mortem debris or some other possibility, then fairness would seem to require that he be allowed to also raise during cross-examination, or in re-examination, that the area is a possible subdural haemorrhage which has undergone autolysis. Were he not able to do so, then his evidence could be relied upon in support of a defence submission that the evidence did not raise even the possibility of the area being a bruise to the brain, and was explained by other possibilities. Accordingly, the ruling which I intend to make relates to the evidence which may be given in Dr Milne's evidence-in-chief about a possible subdural haemorrhage. The evidence given in the conclusion to the autopsy report about a possible subdural haemorrhage and the words highlighted by me in the quotations taken from pages 10 and 12 of the report at [27] will not be permitted to be given in Dr Milne's evidence-in-chief.

[59] With Dr Milne not being permitted to give evidence-in-chief about a possible subdural haemorrhage, there is no proper basis for him to address in his evidence-in-chief the force that would be required to cause such an assumed injury and that such an injury may cause death. Subject to one proviso, Dr Milne will not be permitted to give evidence that an assumed subdural haemorrhage could have resulted from a moderate degree of blunt force and that if there was a subdural haemorrhage, then it was a likely cause of death. The proviso is if Dr Milne is cross-examined about the possible causes of the granular brown material between the left side of the brain and the dura and gives evidence during his cross-examination about a possible subdural haemorrhage. In that event he could refer to the force required to cause such a haemorrhage, that a subdural haemorrhage may cause death; and if the possible subdural haemorrhage was in fact a haemorrhage it was a likely cause of death.

Should Dr Milne's evidence about a chipped tooth be allowed?

[60] In this instance there is no doubt about the nature of the observed abnormality. If Dr Milne personally observed the chipped tooth, then his evidence of his observation is admissible. Describing the chipped tooth as an injury may be contentious if the term "injury" connotes a recent injury. This is because Dr Alex Forrest (whose report Dr Milne adopted) could not say whether the chip was of recent origin or not.

[61] The prosecution would have Dr Milne go further than reporting that there was a chipped tooth which "may or may not have been recent". It seeks to rely upon the sentence which appears at p 14 of his report that:

> "If this was the result of a recent injury it indicates an impact to the mouth region, probably of a mild or moderate degree of force."

[62] I assume that this opinion and the later opinion that the injury could have been "the result of blunt force from an assault" falls within Dr Milne's area of professional expertise and experience from having examined persons who have suffered a chipped tooth as a result of a mild or moderate degree of force, including blunt force applied in an assault.

[63] Dr Milne might be allowed to give such evidence since a medical expert can give evidence that a deliberate act was a possible cause of an injury, provided the opinion is not speculative and there is evidence to support such a conclusion. As a result, a suitably qualified medical expert can give evidence that an observed injury is consistent with the prosecution hypothesis of an assault.

[64] The difficulty with Dr Milne's evidence about the cause of the chipped tooth and the possibility that it was the result of blunt force from an assault is that it singles out the prosecution hypothesis. By not referring to other possible causes of a chipped tooth the evidence may unfairly prejudice the defendant by giving one possible cause the authority of an expert. To state the obvious, a tooth may be chipped by biting a hard object. There may be other causes, and a dental expert might be able to give evidence about those causes (a matter about which I express no view). If the possible causes of a chipped tooth are a proper subject of expert opinion, then it has not been shown that Dr Milne is an expert in that field. A dental specialist may be better placed to give expert evidence on that topic.

[65] The position then is that all Dr Milne can say is that there was a chipped tooth. He cannot say when it was chipped. I have not been informed about whether the tooth was in a position where other persons, such as friends or family, would have been able to observe its chipped condition to determine if it was chipped some time before 19 April 2012. I am not aware of any evidence as to whether the deceased reported, or did not report, suffering a chipped tooth, or when she last visited the dentist or whether the nature of the chip in terms of its size or location would be likely to prompt someone who suffered such an injury to seek dental treatment for it. Thus, one is presently left with a simple observation of a chipped tooth.

[66] If Dr Milne (or a suitably-qualified dental expert) says no more than that, then the evidence has little probative value. Equally, if that is all that is said then it can hardly be described as unfairly prejudicial. The existence of a chipped tooth might be consistent with the prosecution case. It also is consistent with innocence, such as the chip having been suffered well prior to the alleged assault or by causes that did not involve the deliberate use of force by the defendant. Where such alternative causes exist, it would seem unfair for Dr Milne to single out a possible cause of the chip, by simply stating that the chipped tooth could have been the result of blunt force from an assault. To do so would be to ignore other causes. Such a statement would also suggest that the injury was recent, when such a conclusion is not supported by the facts. I consider that it would be unfair and prejudicial for Dr Milne to give this evidence.

[67] In summary, I rule that Dr Milne (or a dental expert) may give evidence of a personal observation of a small mesio-incisal chip on tooth 33, which may or may not have been a recent chip. Permitting him to give such limited evidence is fair since it precludes the jury being left with the impression that any force could not have chipped a tooth. However, Dr Milne should not be permitted to give evidence-in-chief on the assumption that the chip was of a recent injury, that it indicates an

impact in the mouth region or that it could have been the result of blunt force from an assault. The jury may, in considering all of the evidence, consider this possibility and conclude that it is consistent with the prosecution case. The prosecution should not be permitted to call Dr Milne to lend his authority to this possibility in the form of expert opinion evidence.

Should Dr Milne's evidence about smothering or strangulation be allowed?

[68] The possibilities that Allison Baden-Clay died as a result of being smothered or strangled are advanced as possible causes of death in circumstances in which Dr Milne accepted that there was no physical evidence to support either of those possible mechanisms of death.

The rule against speculation when there is no supporting evidence

[69] The report's conclusion about possible smothering or strangulation, whilst an appropriate subject for an autopsy report, confronts the rule that an expert will not ordinarily be permitted to speculate as to inferences when there is no evidence that could support such an inference.[13] The hypothesis of smothering or strangulation must be consistent with the known facts and also be drawn from facts which may be established by the evidence.[14] According to one formulation of what may be derived from the separate judgments in *Straker v R*, where the inference is adverse to the accused, the expert should only be permitted to express such an opinion where it is a probable inference from the known facts.[15] Jacobs J stated in *Straker v R*[16] that:

> "An expert may give evidence that a condition found by him is consistent with a certain cause, but if the cause is in issue such expert evidence is only admissible against an accused if there is other evidence to support a finding of that cause."

[70] The scope for experts in some cases[17] to address a hypothesis of induced asphyxia as a possible cause of death does not establish a rule that an expert may speculate about suffocation in any case where the cause of death is undetermined. An expert will not ordinarily be permitted to speculate as to inferences when there is no evidence that could support such an inference. And where there is only slight evidence to support an inference, the court may conclude that such speculation should not be permitted. The point at which the evidence is so slight or equivocal as to make the hypothesis "mere speculation"[18] may not be easily defined. But once that point is reached the expert's speculation may be rejected as so lacking in evidentiary value as expert testimony that it should be excluded.

Is there support for a suffocation or strangulation hypothesis

[71] In a case like the present, where the sound working assumption is that death was from an unnatural cause, some non-natural causes of death may be excluded, for example death from a heavy weapon that would have caused a skull fracture. Other

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13 *R v Berry* (2007) 17 VR 153 at 173-4 [69]; [2007] VSCA 202 at [69]; *Martinez v Western Australia* [2007] WASCA 143 at [400].

14 Ibid.

15 This was the view taken by Redlich JA in *R v Berry* (supra) at footnote 45.

16 (1977) 15 ALR 103 at 114.

17 *R v Matthey* [2007] VSC 398 and the cases cited therein.

18 Heydon *Cross on Evidence* Vol. 1 (LexisNexis Butterworths NSW 2014) 29006, [29010].

possible causes cannot be excluded, including suffocation, strangulation and drowning. It might be said that evidence of a non-natural death provides *some* evidence to permit an expert to speculate about suffocation and strangulation, even in the absence of evidence of certain injuries which would support such a cause.

[72] In such a case the hypothesis of suffocation or strangulation is not derived from specific evidence supportive of such a cause. It is derived from the general conclusion of a non-natural death, and the absence of evidence which would exclude suffocation or strangulation as a possible cause. The position is not materially different from the position where there is no evidence to support the hypothesis. Both are forms of speculation.

[73] In the course of submissions, senior counsel for the defendant acknowledged that Dr Milne could give evidence of significant soft tissue loss and that if there had been injuries at certain sites, then those injuries could have been destroyed or obscured by post-mortem changes. He clarified that he could not object to the parts of the conclusion which dealt with that topic and which explained how areas of injury (ante-mortem and post-mortem) could have been destroyed or obscured. This evidence leaves open the possibility that injuries caused from smothering or strangulation, particularly soft tissue injuries, were not detected. However, this scenario does not alter the fact that there is no evidence of such injuries. The evidence of the possible disappearance of signs of such injuries serves to explain why there is no evidence of those injuries. It does not prove that such injuries once existed.

[74] It might have been permissible for Dr Milne to give his expert opinion to the jury about the hypothesis that the deceased was suffocated or strangled if there was evidence in the form of soft tissue injuries, damage to the hyoid bone or larynx or other evidence which supported such a hypothesis. There is not and, in the circumstances, Dr Milne's identification of smothering and strangulation as other possible causes of death from inflicted means involves impermissible speculation on possibilities adverse to the accused. It is inadmissible.

[75] This conclusion is not altered by some other equivocal evidence. The body was found with a jumper, inside out, with both the collar and waistband of the jumper "somewhat twisted and wrapped around the neck to some degree." Dr Milne noted that the position of the jumper was "unusual" and that it could have occurred with "movement of the body after death". However, he could not exclude the fact it may have been used as ligature. The possibility that the jumper was used as a ligature to strangle the deceased is arguably some, slight evidence in support of a strangulation hypothesis. But the jumper's position is so equivocal a sign of its possible use as a ligature that it provides practically no evidence in support of that hypothesis.

[76] If I had concluded that Dr Milne's opinion that smothering and strangulation are possible causes of death was admissible because:

(a) there is some evidence of non-natural causes at the hands of the defendant; and

(b) the non-natural causes of smothering and strangulation cannot be excluded;

then I would have exercised my discretion to exclude such opinion evidence in circumstances where the selection of those causes is not supported by evidence

indicative of suffocation or strangulation (as distinct from other non-natural causes). The two possibilities are the subject of expert speculation which is highly adverse to the accused. In circumstances in which the medical evidence is inconclusive as to smothering and strangulation as a possible cause of death, to allow Dr Milne to speculate about them as possible causes would be unfair and carry a real risk that the jury would attribute undue weight to them as possible causes.

[77] It will be for the trial judge to rule whether it is open to the prosecution to invite the jury to conclude that Allison Baden-Clay died from unknown causes inflicted by her killer. Such causes might have inflicted soft tissue injuries that were destroyed by post-mortem changes. The jury may be invited by the prosecution to consider such possibilities, subject to appropriate cautions from the trial judge about the need to avoid impermissible speculation on possibilities that are not supported by the evidence. The ruling I am required to make is not concerned with the available inferences that the jury may draw from the evidence on possible causes of death which are left open on the evidence. It is concerned, instead, with whether an expert witness should be permitted to, in effect; speculate on two specific possibilities in circumstances where there is an absence of evidence to support those possibilities as a cause of death.

[78] My ruling that Dr Milne should not be permitted to speculate about smothering or strangulation as a possible cause of death does not preclude Dr Milne from giving his reasons for concluding that the circumstances favour an unnatural cause of death over a natural cause of death. The defendant does not seek the exclusion of such evidence. It is implicit in the conclusion reached by Dr Milne that, in circumstances where decomposition and other changes have destroyed or concealed evidence of the cause of death, he cannot exclude a number of possible non-natural causes of death.

[79] In summary, the hypothesis of suffocation or strangulation is not sufficiently supported by evidence which indicates them as possible causes. The explanation that such supportive evidence may have disappeared due to post-mortem changes cannot be equated with positive evidence of such causes. The necessary, supportive evidence may have disappeared. But it may never have existed. The fact is that the necessary supporting evidence does not exist. As a result, Dr Milne, should not be allowed to speculate on a possibility of which there is no supporting evidence, or at least only slight supporting evidence.

[80] I should mention in this context that it is unnecessary and inappropriate for me to address the admissibility of other possibilities to which objection is not taken, including the possibility of drug toxicity. No application was made to exclude Dr Milne's evidence that death from drug toxicity could not be excluded as a cause of death. The prosecution did not seek a ruling that such evidence not be given and it was said, in the course of argument by counsel for the defendant, that unlike the possibility of smothering and strangulation, there was some evidence to support such a possibility. I simply wish to record that the possibility of drug toxicity, and whether that possibility is favourable or adverse to the defendant, was not the subject of the application before me.

Expert evidence about scratch marks

A summary of the evidence

[81] On the morning of 20 April 2012 the defendant was observed to have injuries, which witnesses described as scratches on the right side of his face. Photographs of the injuries to the defendant's face were taken at 12:45pm the same day.

[82] At 8:30am on 21 April 2012 the defendant attended a local medical centre where he asked Dr Beavan to look at the cuts on his face. He told Dr Beavan at least three times that he had been in a rush while shaving and had cut his face. At 4pm that day the defendant then saw Dr Kumar at a different medical centre. He told Dr Kumar that he had scratched himself with an old razor, causing his facial injuries.

[83] At 7:15pm on 22 April 2012 a Forensic Medical Officer, Dr Griffiths, examined the injuries to the defendant's face. Dr Griffiths noted that the injuries resembled fingernail scratches. He estimated that the injuries were at least 48 hours old, if not older.

[84] The prosecution proposes to lead evidence from Dr Hoskings, Dr Griffiths, Dr Stark and Associate Professor Wells in relation to the injuries on the defendant's face. The witnesses all have qualifications and experience which make them experts within their fields.

[85] Each of the experts is of the opinion that the injuries apparent on the defendant's right cheek could have been caused by a fingernail scratch. Each also expresses doubt whether the injuries could have been caused by a razor blade. The prosecution seeks to lead this evidence to prove that:

(a) certain injuries were fingernail scratches, caused in a struggle with the deceased; and

(b) the applicant's razor explanation is a lie which shows a consciousness of guilt.

Associate Professor Wells, Dr Stark and Dr Hoskins also identified some linear injuries on the defendant's face having the appearance of shaving cuts.

The defendant's objections

[86] I have simply summarised the evidence of the expert witnesses about scratch marks because the defendant's objections to their evidence are general in nature and do not distinguish between the witnesses or descend to detail about their specific evidence.

[87] The primary objection is that the interpretation of scratch marks is something well within the ordinary ability of a layperson such as a juror to assess. Scratches are said to be "well within the general knowledge and common sense of jurors". The opinion of an expert is submitted to be unnecessary to help the jury form its own conclusions.

[88] The prosecution responds that the experts' extensive general experience and knowledge in the assessment of injuries caused by fingernails and other mechanisms qualifies them to express an opinion about whether the relevant scratch was caused by a fingernail or a razor. Their evidence is admissible because a jury "would not be able to form a sound judgment on the matter without the assistance of witnesses possessing special knowledge or experience in the area".[19]

[89] In reply, the defendant formulates the primary issue as whether evidence from an expert can be called to discriminate between fingernail scratches and scratches from a shaver. The primary objection invokes what may be described as the common knowledge rule. A subsidiary objection relates to whether there is a sufficient body of medical or scientific literature about the subject of fingernail scratches and shaving injuries.

The common knowledge rule

[90] An expert witness may not give an opinion on a matter if it would not assist the court in coming to a conclusion. Expert evidence will be excluded if an ordinary person is as capable of forming a correct view on the question as anyone else. The relevant question was stated by King CJ in *R v Bonython* to be "whether the subject matter of the opinion is such that a person without instruction or experience in the area of knowledge or human experience would be able to form a sound judgment on the matter without the assistance of witnesses possessing special knowledge or experience in the area."[20]

[91] The essence of the "common knowledge rule" is that what is generally known ought not to be the subject of expert evidence. The rule has been formulated in a number of ways over time.[21] At its heart is the notion that ordinary people understand ordinary things and do not require expert evidence to assist them, and that to allow such evidence would be to usurp the province of the jury.[22] As the frequently cited passage from the judgment in *R v Bonython* indicates, the focus is on whether the opinion will be of assistance to the Court. The same notion is captured in terms of the need of the jury for expert "help" or whether the expert evidence could be of real assistance to the jury.[23]

The issue

[92] The application of the common knowledge rule to the facts of this case may be framed as follows: is the interpretation of scratch marks to determine whether they were caused by fingernails or a razor a matter of such common experience that a juror could form a sound judgment without the assistance of witnesses possessing special knowledge or experience in the area? Alternatively, one might ask: does the jury need the assistance of witnesses with special knowledge and experience to adequately discharge their function in deciding whether certain scratch marks were

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19 *R v Sica* [2013] QCA 247 at [127].

20 (1984) 38 SASR 45 at 46-47, followed in *R v Sica* [2013] QCA 247 at [127].

21 Freckleton, Ian and Selby, Hugh *Expert Evidence: Law, Practice, Procedure and Advocacy*, (Lawbook Co, NSW, 2013) Chapter 2.15.

22 Ibid at [2.15.100].

23 See the authorities cited in Freckleton & Selby [2.15.40] including *Murphy v The Queen* (1989) 167 CLR 94 at 127; *R v Turner* [1975] QB 834 at 841; *R v Barry* [1984] 1 Qd R 74 at 98.

inflicted by fingernails or a razor? The questions address the same essential issue of the jury's need for expert assistance.

Ruling on the principal objection

[93] The defendant's present objection is not that the doctors lack relevant expertise in the field. It is not said that any of them lack experience in observing wounds inflicted by fingernails and other objects so as to express an informed opinion on the question of whether the relevant wounds were inflicted by fingernails or a razor.[24] The objection is that a layperson has sufficient experience of the cause wounds so as to not need the expertise of such experts by way of assistance.

[94] The defendant submits that scratches are very common in human experience, such that the assessment of what caused the scratch marks in this case are within the ordinary ability of a layperson to correctly assess without the assistance of an expert. I am unable to agree.

[95] Scratches may be a common experience. Experiencing or observing fingernail scratches may be less common. Some people may have cut themselves on the face or elsewhere with a razor. It is debatable whether doing so is a common experience. Whatever the experience of laypersons may be in observing and assessing fingernail and other scratches, it is unlikely to have been as substantial or as careful a study as that undertaken by experts who assess the causes of such injuries as part of their profession.

[96] Although given in the context of whether wounds were self-inflicted, the following observations apply to the assessment of wounds by an untrained layperson "unaided by evidence from a person skilled in interpreting wounds" compared to such an expert with far greater experience:

> "Although the untrained eye is able to see wounds and observe their severity and the pattern of them and where they are on the body and so on, the question as to what features are significant and the inferences to be drawn from them are questions of judgment, assessment and opinion."[25]

[97] Gummow and Callinan J in *Velevski v The Queen*[26] stated:

> "Medical doctors, and pathologists in particular, are well capable therefore of possessing specialised knowledge enabling them to offer informed opinions as to the infliction, self or otherwise, of injuries".

Their "experiential knowledge" of the pathology of blood, tissue and other matters qualified them to express an opinion.

[98] The present issue is the relative inexperience of a layperson in making an informed opinion about whether wounds were caused by fingernails, without assistance from an expert. A juror may be able to form an opinion about the cause of the scratch marks based upon the juror's own experience of scratches, or what the juror is told

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24 cf *R v Anderson* (2000) 1 VR 1 at 23[56]-25[58]; [2000] VSCA 16 at [56]-[58] in the context of the study of self-inflicted wounds.

25 *R v Middleton* (2000) 114 A Crim R 258 at 264 [21]; [2000] WASCA 213 at [21].

26 (2002) 76 ALJR 402 at 428 [160]; [2002] HCA 4 at [160].

of the experience of others. That experience is likely to be far less than the experience of an expert in the field who has assessed many scratch injuries in the course of a professional career. An expert who has studied many such wounds and has knowledge, gained through experience, is far better equipped to make such an assessment correctly.

[99] I conclude that, without the assistance of such an expert, a juror with little or no experience in studying wounds inflicted by fingernails or razors is unlikely to adequately discharge his or her function in deciding whether certain scratch marks were inflicted by fingernails or a razor.

[100] Expressed in terms of the language favoured in *Bonython*, the interpretation of scratch marks to determine whether they were caused by fingernails or a razor is not a matter of such common experience that a juror could form a sound judgment without the assistance of witnesses possessing special knowledge or experience in the area. Expressed differently, the jury need the assistance of witnesses with special knowledge and experience to adequately discharge their function in deciding whether certain scratch marks were inflicted by fingernails or a razor.

The subsidiary objection

[101] The defendant's subsidiary objection, and one not developed in oral submissions, relates to whether there is a sufficient area of expertise about the subject. The defendant's written submissions point to the following statements made by the experts. Dr Hosking stated that:

> "A thorough search of the available forensic medical literature will reveal that there is no common agreed definition of the term "scratch".

Dr Stark stated:

> "I don't think there's any published papers quoting the dynamics of fingernails. I think it's just some that – almost common sense, I guess, that it's not a static situation".

Associate Professor Wells noted:

> "I haven't seen anything published in the scientific literature on shaving type injuries … I haven't seen either case reports or articles analysing this at all."

[102] The prosecution responds that the experts are able to offer informed opinions about the infliction of the wounds based upon their extensive general experience and knowledge in the assessment of wounds. The interpretation of a wound is within the area of their study of the characteristics and patterns of wounds. It does not depend upon scientific literature in the form of articles about the dynamics of fingernails or shaving type injuries.

[103] Reliance is placed upon the observations which I have quoted above of Gummow and Callinan JJ in *Velevski v R* in the context of opinion evidence about whether wounds were self-inflicted. In such a case the body of knowledge and special expertise of the expert is derived from experience in observing and assessing wounds, not an organised body of scientific literature.[27]

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[27] *Middleton* (supra); *R v Anderson* (2000)1 VR 1 at 22-23 [55].

[104] It is unnecessary to summarise in detail at this point the evidence of the doctors in this case, since the objection is of a general kind and relates to all of their evidence. However, for completeness I shall include as a Schedule to these reasons the summary contained in the respondents' submissions and the relevant paragraphs of the Pre-trial Memorandum about their evidence. The accuracy of these summaries was not disputed. The objection is not that one or some of them have inadequate experience in the field of studying and interpreting wounds.[28]

[105] As with the doctors and pathologists who have given expert evidence in cases about whether wounds were self-inflicted[29] or the causation of wounds in other cases,[30] the expertise of the witnesses in this case is not derived from study of scientific literature on the topic. It is derived from their experience in "the study of characteristics and patterns of wounds"[31] from which they have acquired knowledge of the features of certain kinds of wounds. Their experience, knowledge and skill in the interpretation of wounds is built upon their knowledge of the pathology of blood and tissue. They are able to apply that expertise to infer whether the wounds, they are required to interpret in this case, were inflicted by fingernails or a razor.

[106] I conclude that the experts have a sufficient area of expertise in the study and interpretation of wounds.

Other matters

[107] The defendant's submissions note that conclusions about whether scratch marks were caused by fingernails are, ultimately, for the jury. There is no doubt about that, and the jury will be told so in accordance with usual directions about expert witnesses. These directions to the effect that the experts' evidence does not have to be accepted, and that, as the sole judges of the facts, the jury is entitled to assess and reject any such opinion evidence as it sees fit. The jury will be reminded that it is a trial by jury, not a trial by expert; and it is for it to decide what weight or importance to give to an expert's opinions or indeed whether it accepts an opinion at all. The jury will be directed that it is for it to decide, not an expert, whether certain scratches were caused by fingernails or a razor.

[108] This is not a case in which the expert evidence to which objection is taken abounds in scientific jargon that might unfairly impress a jury of people without scientific training and result in the jury giving the expert evidence greater weight than it deserves.[32] Their evidence is likely to be understandable to persons without scientific training. The jury's assessment of the evidence of the relevant experts does not depend on matters that require "difficult or sophisticated scientific analysis".[33] After all, the defendant's primary objection is that the matter in issue does even require the jury to have the assistance of an expert. The expert evidence is capable of critical evaluation by the jury.

[109] The defendant's written submissions refer to the fact that two experts did not see the razor, only photographs of it. One expert addressed that matter by acquiring such a

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28 cf *R v Anderson* (2000) 1 VR 1 at 23[56]-25[58]; [2000] VSCA 16 at [56]-[58].
29 *R v Anderson* (supra); *Velevski v The Queen* (supra).
30 *Middleton* (supra).
31 *R v Anderson* (supra).
32 Relevant authorities about this aspect were considered in *R v Sica* [2013] QCA 247 at [114]-[118].
33 *R v Veleveski v The Queen* (supra) at [37].

razor and measuring it. It is not suggested that the reliance on photographs renders the evidence of these two witnesses inadmissible or justifies its exclusion. The matters raised may be the subject of cross examination and submissions about the weight of the evidence.

[110] Mention was made in oral submission about the number of witnesses who will give individual opinions about whether fingernails or a razor blade caused the wounds. But no application was made to limit the number of expert witnesses who address issues in relation to the scratch marks and their cause.

[111] The application for the exclusion of the evidence of Robert Hoskins, Leslie Griffiths, Margaret Stark and David Wells is refused.

Conclusion and orders

[112] I will invite the parties to consider the form of the orders I propose to make in relation to the exclusion of parts of the evidence of Dr Milne.

[113] I refuse the application for the exclusion of the evidence of Robert Hoskins, Leslie Griffiths, Margaret Stark and David Wells.

[114] The applications in paragraphs 3, 4 and 5 of the application filed 18 September 2013 were not pressed, and I will formally dismiss them.

[115] With the agreement of the parties, on 3 February 2013 I adjourned the application in paragraph 6 for an order pursuant to s 47(1) of the *Jury Act* 1995 for the questioning of persons selected to serve as jurors and reserve jurors. That application will be listed before the trial judge.

[116] The orders which I intend to make and these reasons are subject to the non-publication order made by me on 3 February 2013. That order does not extend to the submissions made. It does, however, restrict publication of these reasons. The orders I made that day are:

1. That the reasons for decision on the application not be published until a verdict has been delivered in the trial of Gerard Robert Baden-Clay in relation to the charge that on or about the nineteenth day of April 2012 at Brisbane in the State of Queensland Gerard Robert Baden-Clay murdered Allison June Baden-Clay

2. The media, subject to the undertakings that have been given, is free to report the fact that these applications have been made and are able to report the evidence to which the applications relate and the submissions that have been made in relation to them, subject to the undertakings given that the reports be fair, balanced and accurate and that those reports be reviewed by a lawyer prior to publication.

The intent of order 1 was to restrict potentially prejudicial material to the general public and potential jurors. It was not intended to restrict the publication of these reasons for legitimate purposes, for example to lawyers, witnesses and parties associated with the prosecution and defence of the proceeding, including, of course, the applicant. I propose to vary order 1 by inserting the following words:

"Save for publication for the purposes of the prosecution, defence and conduct of the proceeding"

SCHEDULE
Schedule of Evidence of Experts about Scratch Marks

Paragraphs 42-64 of the respondent's submissions

42. Robert David Hoskins is a Senior Forensic Medical Officer. He holds a Masters degree in Forensic Medicine and is an Associate Professor in Forensic Medicine at Griffith University Medical School. He was Director of the Clinical Forensic Medicine Unit for 10 years. His qualifications are set out in his statement.

43. Dr Hoskins viewed photos of the injuries to the applicant and of the applicant's razor. He prepared a detailed report with photographs of other cases involving various injuries from fingernail scratches.

44. The photos of the applicant had been taken at about 12:45pm on 20 April 2012. There were three broad injuries and four linear marks which he identified. He said the four linear marks were more recent and had the appearance of shaving cuts. He said the other injuries had a scabbing which would ordinarily require at least six hours to occur, but could take up to 24 hours. He noted the edges were irregular.

45. Dr Hoskins concluded that the main facial injuries had the hallmarks of fingernail scratches and that it was implausible that they were caused by shaving.

46. Dr Hoskins gave evidence at the committal hearing. He viewed photos of the deceased's fingernails and said they would be "one possible explanation for those injuries".

47. Leslie John Griffiths is a Forensic Medical Officer who qualified as a doctor in 1980. He holds a Masters Degree in Forensic Medicine.

48. Dr Griffiths examined the applicant at 7:15pm on 22 April 2012. In his statement he noted:

> "The parallel linear abrasions on the right lower cheek which lie vertical to the jaw-line, and are spaced about one centimetre apart and several millimetres wide, resemble finger-nail scratches.
> I estimate these to be at least 48 hours old but they may be older as there were already visible signs of healing within each abrasion.
> Any sharp objects dragged with sufficient force across the skin surface, could also abrade the skin and cause scratch abrasions such as these."

49. Dr Griffiths gave evidence at the committal hearing. He examined the applicant again on 14 June 2014 and the facial injuries were still visible.

50. Dr Griffiths said he has a very generalised knowledge from his study of fingernail scratches and their variations. He said he believes the injuries were caused by a fingernail and that "it could be explained by a convex nail drawn down the face

producing an elongated wound particularly if the finger or fingers were at right angles to the skin".

51. There was tapering which indicates more pressure at the top part of the scratch than the bottom part. He said they were not incised wounds as you would expect with a razor blade. He said the wounds here were "really irregular".

52. Margaret Mary Stark has been a medical practitioner since 1981 and has worked as a Forensic Physician since 1989. She is currently the Director of the Clinical Forensic Medicine Unit with the New South Wales Police Force. Her qualifications and experience are set out in Appendix A to her report.

53. Dr Stark reviewed the reports of Dr Griffiths and Dr Hoskins, and viewed the photographs of the injury to the applicants face. She agreed with Dr Hoskins that the main injuries to the face were not caused at the same time as the more trivial injuries (which were fairly characteristic of razor cuts and appeared to be more recent). She also concluded that the main facial injuries which showed evidence of healing are typical of abrasions resulting from fingernails.

54. Dr Stark gave evidence at the committal hearing. She gave evidence that:

> "The abrasions are wider and not equal. Sort of irregular. And that is suggestive that they would – they could have been caused by fingernails."

55. Dr Stark agreed that from looking at the photographs of the fingernails of the deceased, it was possible those nails were capable of producing the injuries. She said there were two published books that were referred to in her report. She said she has had years of experience of examining suspects and complainants and seeing such injuries.

56. Dr Stark said that the injuries "don't look like razor blade injuries in my experience because of the width to them".

57. Associate Professor David Wells qualified in medicine in 1976. He is currently Head of Clinical Forensic Medicine at the Victorian Institute of Forensic Medicine. His qualifications are set out in his report.

58. A/Professor Wells reviewed the reports of Dr Griffiths and Dr Hoskins and viewed photographs of the injuries to the applicant. He made the following conclusions:

> "1 I have considerable difficulty in reconciling the facial injuries as having been sustained from the action of shaving (with the implement described).
>
> 2 It is possible that a number of the injuries have been sustained as a result of forceful contact with a blunt implement. The injuries to the face and neck may have been produced by the application of fingernails, or some other implement with a blunt or irregular contact point."

59. A/Professor Wells gave evidence at the committal hearing. He gave evidence that the injury was produced by a "relatively blunt or irregular edge making contact with the skin".

60. He viewed the photographs of the fingernails of the deceased. He stated:

> "Well, certainly nails of that type forcibly applied to the skin or moved across the skin could produce, depending on the amount of force, could produce an injury of a sort of gouging nature, if you like … Well, nails of the type that I saw on those images, post-mortem images, could certainly produce an injury similar to those displayed on the screen at the moment."

61. A/Professor Wells stated:

> "These injuries have a number of features that I would associate with the application of force through fingernails. Could there be other explanations for it with some other blunt or irregular object being applied, if it's double edged or something, that's possible, I can't exclude that."

62. His evidence continued:

> "In all of these interpretations we need to be aware that it's a very dynamic event, that is, let's assume it is a fingernail producing this, there are two parties who are mobile or may be mobile. So, that there can be and it's frequently seen in – in fingernails injuries that you see an interruption. Whether the – the nail is lifted where the one party moves slightly and that causes – may cause a change in directionality during that process."

63. He was asked whether the injury could have been caused by something other than a nail. A/Professor Wells answered:

> "Yeah, I mean that's inherent in this. I mean I'm – I'm trying to think of what else could produce that but I might leave that to you."

64. A/Professor Wells was asked about the use of a razor blade as a possible cause of the injuries. He said:

> "It's feasible that those very much lower wounds at the base and towards the ear from injury one, they to me, look more like incised wounds that a blade might produce but I'm unclear as to how a blade could produce that long linear divot as seen in injuries one, two and three."

Paragraphs 37-40 of Pre-Trial Memorandum

37. A forensic procedure order was undertaken by Forensic Medical Officer Dr Leslie GRIFFITHS at 7:15 pm on 21 April 2012. Dr GRIFFITHS noted in his statement that the scratches on the defendant's face resemble fingernail scratches. He estimated that they were at least 48 hours old although they could be older as there were already visible signs of healing within each abrasion. He also stated that any sharp object dragged across the skin with sufficient force could also cause scratch abrasions like those seen (see [21] – [22]).

38. A review of the photos of the scratches on the defendant's face and a comparison of those photos to other photographs of known scratch marks was undertaken by Senior Forensic Medical Officer Dr Robert HOSKINS. Dr HOSKINS noted two larger injuries on the right hand side of the defendant's face, along with at least 4 smaller

marks (described as more trivial abrasions). This led to the following conclusions being drawn:

1. Each of the main injuries to the defendant's face has features making it implausible that that injury was caused by shaving (at [84] – [85]).

2. Through a comparison of the photos taken on 20 and 21 April 2012, and the pink inflammation seen on the main injuries, it is highly unlikely that they occurred after 6:15 am on 20 April 2012 (at [57] – [58]).

3. Although it is not possible to draw the conclusion that the main facial injuries were caused by fingernail scratches, the injuries have all the hallmarks of fingernail scratches (at [82] – [83]).

4. In addition to the main injuries, there are smaller more trivial abrasions which are consistent with shaving injuries. These were not caused at the same time as the main abrasions (at [87]).

39. A review of the photos of the scratches on the defendant's face and a comparison of those photos to other photographs of known scratch marks was undertaken by the Director of the NSW Police Force Clinical Forensic Medicine Unit Dr Margaret Mary STARK. She reviewed the photographs of the defendant's injuries as well as the report of Dr Robert HOSKINS and noted:

1. In agreement with Dr HOSKINS, injuries sustained from fingernail scratches have width to them (at [9.2]). The main facial injuries are typical of abrasions resulting from fingernails (at [9.4]).

2. In agreement with Dr HOSKINS, noted the more trivial abrasions were fairly characteristic with razor cuts and appeared more recent than the main injuries (at [9.3]).

40. A review of the photos of the scratches on the defendant's face and a comparison of those photos to other photographs of known scratch marks was undertaken by the Head of Clinical Forensic Medicine at the Victorian Institute of Forensic Medicine Dr David WELLS. In relation to the facial injuries observed in the photographs of the defendant (taken on 20 and 21 April 2012), Dr WELLS noted:

1. The deep broad abrasions on the defendant's lower right cheek are not injuries that he would associate with having been sustained from a shaving blade. They are the result of forceful contact with an object that has caused a gouging or scalloping of the superficial tissues (possibly finger nails or vegetation) (at [3.1]).

2. The injuries in the photographs from 20 April 2012 appear more advanced in their healing than what would normally be expected for injuries that had been sustained 6 hours earlier. Although the injuries appear to have been sustained recently (within hours or days), no specific estimation of their age can be given (at [3.4]).

3. Disagreed with Dr HOSKINS in relation to the age of the more minor abrasions. He did not believe that the evidence was strong enough to conclude

that the main injuries and the trivial injuries occurred at separate times (at [8.1]).