On 28 August 2014 the Assistant Commissioner of the Tasmanian police wrote to the Channel Nine 60 Minutes program. Various claims were made about the program concerning the conviction of Ms Susan Neill-Fraser which had been broadcast by 60 Minutes on Sunday 24 August 2014.

It is not my concern to interfere in any way with Channel Nine’s discussion of the way in which it presented the program. However, I was involved in an advisory capacity in the making of the program and I was interviewed in the course of it. I am concerned to ensure that the discussion of the underlying issues involved is both fair and accurate. After all, an innocent person may well have been wrongly convicted. I bear in mind the words of the Lord Chief Justice of England and Wales when he said that the possible conviction of an innocent person represented a “catastrophic failure” of the legal system.¹ Also, Michael Kirby, former Justice of the High Court of Australia has said that “wrongful convictions and miscarriages of justice haunt the conscience of a civilised society.”²

Or, at least, they should do.

In responding to the issues raised by the Assistant Commissioner, I am attempting to engage in a constructive exchange of views about this important case. Whilst a criminal trial within the common law system is necessarily adversarial, evaluating the effectiveness of the system after a trial and appeals have been concluded need not be so.

As an academic lawyer, my main concern is with the effectiveness of the system and the extent to which it has the ability to deliver justice in the individual case.

1. The Assistant Commissioner stated: The report failed to mention any of the evidence that points to the guilt of Ms Neill Fraser.

That is not correct. The program made mention of lies and inaccuracies in her statements to police which many people seem to think is important to any assessment of this case.

However, the real focus of attention should be on whether there was a material irregularity in the conduct of the trial. If there was, the law may well require that the verdict be set aside. The Court of Criminal Appeal would not be concerned with the question of whether Ms Neill-Fraser is guilty or innocent - that is the issue to be determined by a jury. However, the appeal court is concerned to ensure that every convicted person has had a fair trial which has been described as “the birthright of every citizen.”³

If there were significant errors in relation to the forensic evidence at the trial, then Ms Neill-Fraser would be entitled to have her conviction set aside – even if there was thought to be significant evidence of guilt. That much is clear from the recent judgment in the case of David Eastman.⁴

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¹ 7-9 September 2011, Conference of the Australian Institute of Judicial Administration, Sydney.
³ R v Derek Bentley (Deceased) [1998] EWCA Crim 2516.
⁴ Eastman v Director of Public Prosecutions [No 2] [2014] ACTSCFC 2.
The Assistant Commissioner stated: It’s important to point out that Ms Neill-Fraser was found guilty by a Supreme Court jury, her appeal was dismissed by the Court of Criminal Appeal and a Coroner’s investigation which reviewed all the available evidence supported the findings of the criminal proceedings.

It is not correct to say that the Coroner reviewed “all the available evidence”. The purpose of a coronial inquiry is quite different to that of a criminal trial. The suggestion appears to be that the Coroner’s investigation might have disagreed with the findings of the criminal proceedings, if it was thought that they were wrong. That is not correct. The legislation states that the Coroner may not make any finding which is inconsistent with a finding of a criminal court.  

It is true that Ms Neill-Fraser was found guilty by a jury and her appeal was dismissed. However, the same thing must be said of all of the 360 criminal convictions which have been overturned by the Court of Appeal (Criminal Division) in the UK in the last 15 years following references to the court by the Criminal Cases Review Commission (CCRC). It should be noted that around 100 of those convictions were for murder. The same could be said of recent Australian cases such as Graham Stafford in Queensland, Jeffery Gilham and Gordon Wood in NSW and Andrew Mallard in WA. The error in Mr Stafford’s trial was only recognised on his fifth appeal. The three judges in the appeal court in Mr Mallard’s second appeal to that court upheld his conviction. Soon after all five judges in the High Court recognised it as a serious miscarriage of justice.

In the UK the legislation states that it is only where there has been a conviction followed by an unsuccessful appeal that the CCRC has jurisdiction to act. So, in the UK, where a person in the situation of Ms Neill-Fraser has concerns about the adequacy of their conviction, they can write to the CCRC and request a review of the case. Claims which are frivolous or lacking in merit can be quickly dismissed. It is worth noting that around 96% of all claims made to the CCRC are in fact dismissed, sometimes after painstaking and lengthy inquiries.

However, the value of the process is that it has identified some 360 cases over 15 years where people were wrongly convicted. In four cases people had their convictions overturned after they were hanged. During the course of their inquiries, the CCRC has not only identified a significant number of wrongful convictions, but a number of serious and systemic errors involving police and forensic practices. The experience of identifying wrongful convictions has given rise to important opportunities to learn about how to improve the system for the future.

The Australian system follows the UK system quite closely in terms of its legal procedures in criminal cases. In fact the Australian criminal appeal system was modelled on the Criminal Appeal Act 1907 UK. This means that the type of errors which have occurred in the UK will almost certainly have

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5 Coroner's Act 1995 (Tas) s25 (4) If in the course of the criminal proceedings a person has been charged on indictment, the inquest, on its resumption, must not contain any finding which is inconsistent with the determination of the matter by the result of those proceedings.
9 Mallard v R [2005] HCA 68.
10 We discussed the procedures involved in Bibi Sangha, Kent Roach and Robert Moles, Forensic Investigations and Miscarriages of Justice (2010) Irwin Law, Toronto chapter ten.
occurred in Australia. The concerns we have about the case of Ms Neill-Fraser are similar to the errors which had been made in the IRA bombing cases in the UK and in the Lindy Chamberlain case in Australia.

It is clear that the Neill-Fraser case involves serious deficiencies in forensic procedures. If we were to identify those errors promptly, we would be in a position to act proactively to prevent or respond to the possibility of similar errors in other cases.

The forensic scientist said that when looking for indications of blood:

we can use a test called a screening test or a confirmatory test. So in this case I used a screening test. (639)12

The correct procedure is to use a screening test and a confirmatory test. To have used a screening test without a confirmatory test represents a fundamental error in this case.

The materials used for a screening test (Luminol, for example) are relatively cheap and can be used to cover large areas. The liquid chemical material is sprayed over an area, and with the lights out one looks to see if it glows in the dark. If it does it is indicative of the possibility of blood being in that area which is glowing. However, the screening tests used in this case (Luminol and Hemastix) will also give a positive reaction to around 100 substances including paints, metals, fruits, vegetables and bleach based cleaning agents. It can also give the appearance of a positive response when it is not in contact with any reactive substance. Luminol has an inherent glow, and if the scientist sprays too much of the substance onto a surface, it will appear to give a glow response which is merely an accumulation of the overspray.

This means that the results of screening tests are not admissible as evidence in court unless they are accompanied by follow-up confirmatory tests which identify a particular substance. This is because on their own screening tests prove nothing. They are merely indicative of a possibility. That possibility is that blood is present at the test location.

That this is so has been internationally recognised for many years now, and is well established in the decided cases and in the scientific literature. In 2010 around the time that Ms Neill-Fraser’s trial was proceeding in Hobart, I was in Toronto for the launch of our book Forensic Investigations and Miscarriages of Justice. The focus of the book was an examination of the law and cases on miscarriages of justice in Australia, Britain and Canada.

Tom Percy QC said that it was "comprehensive and ground-breaking... a masterly text which is certain to quickly become the primary reference point on the topic.”13

Justice Goudge who had conducted the major inquiry into the failure of forensic pathology in the case of Dr Charles Smith in Toronto said of our work:

In this impressive work, the experiences of Britain, Canada, and Australia are collected, compared, and analysed by these eminently qualified experts... all who are involved in

12 The forensic science evidence being referred to in this report is based upon a written report prepared by the witness and dated 12 June 2009. This is important because there are specific provisions relating to the writing and verification of written reports emanating from forensic science centres in Australia. This has implications for checking and peer review procedures discussed later in this report.

the criminal justice system and the constant need to perfect it will profit from this book.14

A few months after it was published, a Justice of the Supreme Court of Canada, Thomas Cromwell, had occasion to refer to it in a prestigious lecture which he was giving in Edinburgh, Scotland. He said:

In their study of miscarriages of justice in Britain, Canada and Australia, Professors Sangha, Roach and Moles identify recurring problems common to the experience of those jurisdictions. These include *the use of preliminary tests as conclusive evidence*, the failure to identify or disclose *procedural errors* in the use of scientific methods or tests, *misinterpretation or misunderstanding of the significance of findings* and experts going beyond their area of expertise or *not explaining their findings* or controversies and uncertainties in the science in a clear, impartial manner. They also note that experts have sometimes misunderstood their obligation of impartiality, *have failed to apply the basic research methods of science* and that judges and lawyers have failed to be sufficiently sceptical of both the science and the witnesses purporting to rely on it.15

In referring to “*the use of preliminary tests as conclusive evidence*” as one of the key findings of our research, he was indicating our lengthy discussion of IRA bombing cases in the UK and in the case of Lindy Chamberlain in Australia.16 Indeed, it was the discovery of those basic errors in the UK which led to the Runciman Royal Commission and in turn the establishment of the CCRC – possibly the greatest reform of the criminal justice system in the UK in recent times.

In the IRA cases, the scientists swabbed the hands of the suspects, using a “screening test”. It was said to have showed a positive result for nitro-glycerine. Nearly 20 years after the convictions it was revealed that nitrites in soaps, boot polish and the nitro-cellulose polymer in the plastic backing on playing cards would also give a positive result. The judges in the Court of Appeal made it clear that the misrepresentation of screening test results as if they were probative constituted a serious error.

*R v Judith Ward* (1993) 96 Cr App R 1 [The M62 Bombings] – three scientists gave false and misleading evidence. The test was described as an “initial step”. The scientist’s conclusion was “*wrong and demonstrably wrong even by the standards of 1974*”. It was said that the scientists placed a “*false and distorted scientific picture*” before the jury.

*R v Anne Maguire and others* (1991) 94 Crim App R 133 [The Maguire Seven] – representing a test as being specific when it was not was “a material irregularity in the course of a trial”. The court referred to cases based upon the unfairness of a conviction obtained by conduct analogous to fraud. “We are of the opinion that a forensic scientist who is an advisor to the prosecuting authority *is under a duty to disclose material of which he knows and which may have some bearing on the offence* charged and the surrounding circumstances of the case.” The disclosure in such cases must be that *positive screening test results cannot be interpreted to indicate the presence of any determinate substance without the result of a confirmatory test*.

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14 The Honourable Justice Stephen T Goudge, Justice of the Court of Appeal for Ontario, Commissioner, *Inquiry into Pediatric Forensic Pathology in Ontario*, 2008. It should be noted that Justice Goudge had retained Ms Sangha and myself as expert witnesses to his Inquiry. Our report to the Goudge Inquiry may be [found here](#).


16 These cases are discussed in *Forensic Investigations and Miscarriages of Justice* chapter eight “Forensic Science Issues”.
R v McIlkenny and others (1991) 93 Crim App R 287 [The Birmingham Six] – it was revealed that “ordinary soaps and detergents” could give a positive result to the test previously represented to establish the presence of nitro-glycerine.

In the case of Lindy Chamberlain, the preliminary test results indicated the presence of foetal blood in the front of her car. After she was convicted it was established that the material was in fact residue of sound deadener from under the wheel arches of the car.

Reference: Lynne Chamberlain, Michael Chamberlain [1988] NTSC 64 – The court said “there is compelling evidence that the spray was made up of a sound deadening compound and contained no blood at all.” It went on to say that “the evidence falls far short of proving that there was any blood in the car for which there was not an innocent explanation.” In closing, the court observed that, “the events of the night of 17 August must have been emotionally devastating to Mrs Chamberlain. Her ability to give a reliable account of the tragedy may have been badly affected by her distress.” Similar comments were made in the case of Gordon Wood and might have been applicable in relation to the explanations provided by Ms Neill-Fraser.

It is clear from the above that evidence concerning the results of screening tests which are not accompanied by corresponding confirmatory tests which identify the particular substance involved (if any) are inadmissible for the purpose of criminal proceedings. This was confirmed in the Victorian case of R v Smart in 2008 where Lasry J stated:

> although I would admit the evidence in relation to the blood stains which are confirmed to be blood by scientific analysis and which produce relevant DNA profiles, I would not admit the evidence in relation to the lumino positive areas where there is no confirmatory testing.17

That is the approach which should have been taken in Ms Neill-Fraser’s case.

3. The Assistant Commissioner’s letter then goes on to express confidence in everyone involved. The Supreme Court, the investigators, the forensic experts and the office of the DPP.

However, if one really wants to maintain confidence in each of those areas, then it is important to identify and correct errors where they have occurred. The real issue is whether the correct evidence has been provided to the court and whether the correct legal procedures have been followed. It is clear from this report that this has not been so in the Neill-Fraser case.

4. The Commissioner says that the claim that a screening test was used to positively identify blood in the yacht’s dingy is “simply not true”.

There are really two issues here which need to be disentangled. The first is whether the witness put forward the results of screening tests when they were not accompanied by an appropriate confirmatory test.

The next question is whether screening test results were put in evidence (unaccompanied by a confirmatory test) and stated to be indicative of the presence of blood.

It has to be said that if screening test results were put in evidence (unaccompanied by a confirmatory test) and not indicative of the presence of blood - what possible purpose could they serve? For evidence to be admissible, it has to be probative, which means it must tend to prove

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some fact which is in issue in the case. A screening rest result which is not indicative of blood would necessarily be non-probative and inadmissible.

That evidence of screening tests was put forward without a confirmatory test can easily be established:

I certainly can’t say that there was any blood present or not, because I haven’t made any attempt to confirm it, but I do have a positive screening test – (668)

Here, the witness appears to acknowledge that without a confirmatory test, one cannot say whether blood is present or not. She added, “no red/brown staining was seen” and “I have a weak positive screening test”. She then added that “I haven’t attempted to confirm the presence of blood, so I don’t know whether there was any blood present or not.” (669) She was then asked by defence counsel, “when we see that expression ‘no attempt to confirm presence of blood’ in other items then the same proposition applies” the witness said, “that’s correct”. (669)

Shortly after she stated:

If the luminol positive result is a true result and not a false positive, as we were discussing earlier, then there has to be some blood there for it to be a true result, however I’ve no way of knowing whether that’s the case or whether it is a false positive. (674)

If the witness had left it there, then the Assistant Commissioner’s claim would be correct, and it could be said that the screening test results (unaccompanied by confirmatory tests) were not used to positively identify blood. However, as we have pointed out, that would also mean that the results should have been held to be inadmissible.

But the witness did not leave it there. As we can see from the transcript, there were many times when the witness indicated that the screening test results, despite what she said above, were in fact indicative of the presence of blood.

On page 639 the forensic scientist referred to the use of luminol as a “screening test for blood”. She explained that it is a chemical, a liquid, and you spray it around, turn out the lights and if any areas are glowing, they get circled and we’d have a closer look at them and maybe sample them if we’re interested.

The important part of the evidence was at page 640, the outset of her evidence, where she said:

The strength of the reaction, how long lived it is, the colour of the glow, the manner of the reaction, whether it’s a constant glow or whether there is a sparkling or a bright flash which then dies down. With experience you can distinguish “false positive” reactions and “true positive” reactions with luminol and how it reacts. The colour, the longevity, is all an indication of that. (640)

“True positive” is indicative of blood. “False positive” is indicative of some other substance. We see here that the forensic scientist claims to be able to distinguish reactions by luminol to blood or to other substances on the basis of “experience” - the criteria concerning which are not explained. The law is quite clear that such claims do not satisfy the criteria for admissibility as expert evidence. The law states that the criteria to be employed by any expert must be clearly articulated so that another expert could apply those same criteria to the known facts and arrive at the same result.
The court in Davie v The Lord Provost\textsuperscript{18} referred to the earlier Australian case of R v Jenkins\textsuperscript{19} where it was made clear that an expert witness must “explain the basis of theory or experience” upon which the conclusions stated are supposed to rest; “courts cannot be expected to act upon opinions the basis of which is unexplained”.\textsuperscript{20} There is no specification of “the strength” of the reaction. How long is “long lived”? What is it about the “sparkling” or “flash” which is indicative of blood as opposed to other substances?

For such claims to be scientifically acceptable and fit to produce as evidence in court, they would have had to be subjected to proper scientific testing and validation. The results would have had to have been published in reputable scientific journals. Specific timings would be required to deal with what amounts to “long lived” – colour charts would be necessary to establish the “colour” of the glow – and we would need “sparkling” and “flash” charts to identify which fall within the criteria and which do not. Clearly none of this exists, because it is all very subjective. The very thing that the law does not allow. Of course, if all of this had been done, then the tests would no longer be screening tests, but confirmatory tests in their own right – and, no doubt, their manufacturers would be the first to market them as such.

It should be noted that in Honeysett v The Queen the expert’s “opinion” was rejected by the High Court because it amounted to a “subjective impression of what he saw”.\textsuperscript{21} The evidence by the witness gave the “the unwarranted appearance of science to the prosecution case”. The High Court held that the opinion was not based “wholly or substantially” upon “specialised knowledge” and that it was “an error of law to admit the evidence”.\textsuperscript{22} The same should have been said of the witness’s evidence in the Neill-Fraser case.

It follows from what the witness has said about the quality of the colour, the glow, the flash and the sparking, that when she goes on to speak of the “positive” areas, she does in fact mean “true positive” areas, which in turn means indicative of the presence of blood. Otherwise, she would have had to indicate specifically that “positive” means “false positive” otherwise it would have been misleading. It is clear that experts must always state any of the limitations or factors which would qualify their evidence so that it is not misleading. Dr Tilstone had been the head of Forensic Services in South Australia. His evidence to the Canadian Kaufman Commission was about the new forensic standards which operated in Australia at that time.\textsuperscript{23} He said that forensic reports had to define the tests which were conducted; they had to specify the results of that testing; they had to specify the conclusions which could be drawn from the testing, and they had to specify the limitations which could be placed on those conclusions.

So, the Commissioner has said that the claim that a screening test was used to identify blood in the dinghy is “simply not true”. The following facts speak for themselves:

640 in the dinghy - there are some positive areas there.

650 dinghy - small brownish stain port side (stern) positive to the HS screening.

\textsuperscript{18} Davie v The Lord Provost, Magistrates and Councillors of the City of Edinburgh (1953) SC 34.

\textsuperscript{19} R v Jenkins; ex parte Morrison [1949] VLR 277 at 303, Fullagar J.

\textsuperscript{20} Makita (Australia) Pty Ltd v Sprowles [2001] NSWCA 305 at [60]. See also H G v The Queen (1999) 197 CLR 414.

\textsuperscript{21} Honeysett v The Queen [2014] HCA 29 [43].

\textsuperscript{22} Ibid [45].

[HS screening involves Hemastix sticks which are rubbed onto the surface being tested and then subsequent colour changes can indicate the presence of material of interest.]

651 dinghy front inner inflatable area - drop and run type stains.

651 dinghy back left positive with the luminol screening test for blood. That’s the shot (photo) showing the luminol positive areas.

651 dinghy front inside – reaction long lived, strong.

The significance of the words “long lived, strong” refer back to this witness’s evidence at p 640 where, as we noted above, she referred to “the strength of the reaction” and “how long lived” it was. The witness had referred to those features as being factors which enabled her, on the basis of her experience, to distinguish “false positive” reactions and “true positive” reactions with luminol and how it reacts.

651 dinghy back port side - reaction long lived, strong.

651 dinghy staining on the trim also long lived, strong.

651 dinghy middle towards the back – reaction long lived, less strong.

652 dinghy area right side of the floor - luminol positive – strong.

652 dinghy rope and trim bow Luminol positive glowing in photograph here - rope and trim negative to Luminol left side, positive right side.

653 dinghy - such strong positive reactions.

5. The Assistant Commissioner states that “At no time in the trial did the forensic scientist state that blood was found in the dinghy”.

I think it is clear from the above that the scientist, having described luminol screening as a “test for blood”, is indicating that “luminol positive” responses, especially when combined with the words “strong” and “long lived” are indicative of “true positive” responses which are indicative of blood. It is clear from the literature and codes of conduct that the expert witness must make clear any the limitations upon the evidence which is being given as noted above. If the witness had intended the words, “luminol positive” or “strong positive” reactions to mean anything other than the presence of blood, she would have had to add that qualification each time she gave that evidence.
Indeed it is clear that the prosecutor in his opening address to the jury foreshadowed the witness’s evidence to indicate that there was blood in the tender:

But the tender itself was also subjected to a screening test for blood called luminol, and what happens with luminol is you put it – you put it on objects where there might have been blood and turn off the lights and it gets lum – it goes luminous in the presence of blood, and so that reacted quite strongly, the tender and the inside of the tender for the presence of blood, and swabs taken from the tender were found to match, with a high degree of probability, Mr Chappell’s DNA.\(^\text{24}\)

6. The Assistant Commissioner said that it was explained to the jury that screening tests used on the dinghy were not specific for blood and can react with other substances.

Indeed that was correct. If it had been left there, there would be no complaint - except that it would also have meant that all of the evidence about luminol screening tests would have been inadmissible. As noted above, Luminol can in fact react with around 100 other substances and can also appear to give a positive response when it is not reacting with anything -it can “auto-luminesce”. Sometimes the scientist will add some extra spray (what the witness referred to as “overspray”) in order to enhance the quality of the glow so that it will show up in a photograph.

In speaking of a photograph of the dinghy (see above) the scientist said that “this run down here” which appears as the fluorescent streak on the photograph, is just the chemical itself running down towards the back. (651) Like “overspray” the accumulation of the Luminol is “auto-luminescing”.

The witness says, “The glow is very pale to some extent, even though I’m calling it strong and weak.” (651) It is hard to know what this means. The witness explains more about her methods when she says:

Even when it’s strong it’s not particularly bright so, we spray multiple times to enable it to come out in a photograph so that’s why there has been some overspray of the chemical which has then run down towards the back and pooled at the back. (652)

So, the desire to get a good photograph, requires repeated applications of the Luminol, which can then “auto luminesce” as appears to be the case in the above photograph.

However, as explained above, the witness claimed to be able to distinguish between such “false positive” appearances and “true positive” appearances on the basis of her experience and by the sparkle, glow, colour and longevity of the response.

7. The Assistant Commissioner stated that upon further examination in the laboratory, no red / brown staining typical of blood was found in the dinghy.

This is correct. The scientist had the dinghy sent to the laboratory where it was examined microscopically. No further visual signs of blood were found. However the witness had already made references to the existence of stains in the dinghy which she had been able to observe without the aid of any enhancement process. She had also made it clear in her evidence that whenever she had referred to the existence of “red/brown stain” she meant that to be understood as another way of referring to blood. (657)

She also referred to: “several areas of staining in the dinghy, based on experience and having seen lots of reactions, I would say probably are not false positive reactions.” (657) “Not false positive” reactions means that they are “true positive” reactions, which means that they are indicative of the

\(^{24}\) Trial transcript prosecution opening address [71].
presence of blood. The “areas of staining” –“lots of reactions” (referring to luminol and HS testing) combined with the words “not false positives” can only be understood to confirm the existence of blood.

The witness then said:

Luminol is so sensitive – it will react with dilutions of blood to one in a hundred thousand. You won’t necessarily see red/brown staining - you won’t be able to do subsequent tests to confirm that what you’ve seen is or isn’t blood. (658)

So, with the luminol positive result, and the fact that the traces are so tiny they can’t be seen, without being able to do subsequent tests to confirm the existence of blood, one only has the subjective judgment of the scientist to indicate that the results are “probably not false positive”.

The topic of the “sensitivity” of luminol no doubt prompted the following suggestion by defence counsel, “If someone has attempted to clean up bloodstains, luminol can find it?” (667) The witness agreed that might well be the case.

The inability to find further visual confirmation with a microscope as pointed to by the Assistant Commissioner hardly seems to have undermined the prosecution case about the existence of blood in the dinghy.

8. The Assistant Commissioner pointed out that the DNA material could have been deposited on the boat from either primary or secondary transfer.

It has to be said that this is an unusual situation. The presence of DNA at a scene might at least prima facie indicate the presence of the person the DNA originates from at the scene. However, the police and prosecutor prefer to rule out such a scenario. If it were accepted that an unknown third party could have been present at what the prosecution claimed was a murder scene, then that leaves open a possible explanation consistent with the innocence of the accused. That would mean that under the rules of circumstantial cases, the prosecution of Ms Neill–Fraser would fail.

It is clear from the Victorian Police Forensic Services Department expert report the amount of third party DNA found at the scene was in such a quantity that it was not consistent with a “touch scenario”. Therefore if there is to be an explanation based upon secondary transfer how could that occur? The prosecutor put forward a possible scenario at the trial of Ms Neill-Fraser:

But it could have been put there at any time before the DNA swab was taken by anyone who had acquired some trace on their footwear at any place and then maybe got in the car, driven down and got out and onto the boat and transferred it. All those things are logically possible. (1407)

However, the Victorian Police Forensic Services Department expert report referred to by the Assistant Commissioner states quite clearly that such a scenario is not in accordance with the evidence:

there is no evidence to support the hypothesis that the DNA detected in sample 20 was the result of a secondary transfer event caused through foot traffic on the deck of ‘Four Winds’.

This means that the scenario put to the jury at the time of the trial has erroneously excluded an explanation consistent with the innocence of the accused. It means that the conviction should be set aside. The recent High Court case of Fitzgerald v The Queen is interesting because it applied the
same principle in reverse circumstances. At the time of the trial it was thought that the presence of a person’s DNA at the scene was indicative that the person had been present at the time the crime was committed. A subsequent expert report established that a secondary transfer “touch scenario” was possible and indicated the possibility that the person was not present at the scene. The court said that it didn’t have to accept that this was the explanation, merely that it was a possible scenario, (one which was not unreasonable or fanciful) which was not put to the court and which was fairly open on the evidence. The opening up of such a possible alternative scenario was sufficient to warrant the conviction being set aside.

In this case the Assistant Commissioner states in her letter that primary transfer is a possible explanation. Presumably, she also accepts that the secondary transfer scenario put forward by the prosecutor at the trial is no longer acceptable - because that was the conclusion of the report which she quotes. That being the case, then the law will require the conviction to be set aside.

Maybe the Assistant Commissioner can come up with some other version of secondary transfer which will be consistent with the scientific evidence and other known facts, so as to further excuse the third party identified by the DNA. However, even if she were able to do that, it would only be an explanation which would be appropriate to put in a retrial. The law is quite clear. A conviction cannot be maintained on the basis of explanations or evidence which were not put in evidence at the person’s trial.

9. The Assistant Commissioner says she would encourage anyone with misgivings about the case to read the judgement of the Court of Criminal Appeal, which summarises the evidence. However, that would be an exercise with limited or no value. The issues which we have raised about the forensic evidence at the trial and other issues which will be raised in the petition were not raised in the previous appeal. That judgment will not assist us with that. Logically, reading a judgment about a prior unsuccessful appeal will not assist with the determination of a future appeal which is to be argued on different grounds. The law on this is also clear.

In a reference to the court under the petition procedure, the legislation states that the Attorney-General “may refer the whole case” to the Court of Criminal Appeal, to be dealt with as an appeal under the relevant statute. The High Court has said the reference to “the whole case”, conveys no hint of any inhibition upon the jurisdiction of the Court of Criminal Appeal on a reference. The words embrace the whole of the evidence properly admissible, whether “new, fresh or already considered in earlier proceedings, however described”. The court said that it was “elementary that some matters may assume an entirely different complexion in the light of other matters and facts either ignored or previously unknown”. In considering the additional material the court said that it was irrelevant that the whole of the other evidence at trial may have been thought to be sufficient to sustain a verdict of guilty.

As for the previous appeal judgement, it summarised the evidence from the prosecution side of the case only. Reading it will therefore give a one-sided view:

26 Neill-Fraser v Tasmania [2012] TASC 2
27 Mallard v The Queen [2005] HCA 68 [6]; Gummow, Hayne, Callinan and Heydon JJ as discussed in Forensic Investigations chapter five.
I will relate some of the circumstantial evidence and the Crown's case. As the appeal does not attack the correctness of the jury's verdict, it is unnecessary to relate the appellant's arguments concerning much of it, nor her evidence in which she denied responsibility for Mr Chappell's death.\textsuperscript{29}

**THE WAY FORWARD**

The correct approach to any evaluation of the claims which are being made in relation to this case is to assess them in the light of the applicable law. It is clear that when that is done, the conviction must be set aside.

The question then arises as to the responsibility of the Tasmanian Forensic Science Service, or of the police who have overall responsibility for the provision of forensic services in Tasmania.

Some guidance may be gained from the Royal Commission into the conviction of Edward Splatt in South Australia a few years before the Royal Commission into the conviction of Lindy Chamberlain. Serious and systemic error had been found in the case of Mr Splatt who was convicted entirely on the basis of forensic and scientific evidence which had been found at the scene. His trial took 11 days and the Royal Commission which led to Mr Splatt being pardoned took over 190 sitting days. It found that every single piece of evidence which had been put forward at Mr Splatt's trial contained errors.\textsuperscript{30} Mr Splatt was granted a pardon in 1984.

It is now thirty years since the Splatt Commission report. One would hope that forensic standards would have improved over the intervening years. It would clearly be unacceptable if current standards did not match the minimum requirements set out in the Splatt report.

The Commissioner noted a “cardinal rule” which “must be obeyed at all times whatever technique is being performed”:

> Every operation must be documented on the case notes and documented in such a manner that it will still be comprehensible perhaps years later. **All major observations must be checked by an independent observer** who must indicate that the proper checks have been made by initialling the notes.\textsuperscript{31}

One concern which must be addressed in the Neill-Fraser case is whether the observations and findings were peer-reviewed before being delivered in court. If not, it would be indicative of systemic error. If they were peer-reviewed and not corrected, that too would be indicative of systemic error. Either way this case must give rise to serious concerns that similar evidence may well have been given in other cases.

The Commissioner said that in a trial where the evidence is of a scientific nature, a very serious obligation lies not only on the scientists who give evidence, but on the representatives of the legal system who are responsible for the conduct of the trial. It is clear that in the Neill-Fraser case, legal officials should have been alert to the fact that the scientific evidence failed to comply with the requirements for admissibility.

\textsuperscript{29} Ibid [10]; Crawford CJ.

\textsuperscript{30} Royal Commission Report concerning the conviction of Edward Charles Splatt 1984: Carl Reginald Shannon LLB (Hons) QC (former Supreme Court Judge, NSW) – **summary of Royal Commission Report**.

\textsuperscript{31} Ibid pp 51-2, citing with approval the view of Dr Robertson concerning “the very minimum requirements” which would operate in England and in Scotland. The following points are from these pages of the Splatt Report.
The Commissioner said that the vital obligation of the scientists is that they spell out in non-ambiguous and precisely clear terms the weight and significance of the tests and analysis. In the Neill-Fraser case, the scientists should have made it abundantly clear that adverse inferences cannot be drawn from unconfirmed screening test results.

The Commissioner said the critical responsibility which rests upon legal persons is to ask such detailed and probing questions of the scientists as are likely to elicit the proper evidence. If that had been done in the Neill-Fraser case, the prosecution could not have proceeded as it did.

The Commissioner stated that there are serious obligations on both witnesses and counsel in a criminal trial. The scientific witness had to clearly state all limitations, and counsel to probe and investigate to the furthest limits of relevance.

The recommendations of the Splatt Royal Commission were very important, and brought about significant improvements in the forensic procedures in South Australia.

Arising from the experience of the Splatt Royal Commission, Dr Tilstone and Dr Robertson from the South Australian Forensic Science Centre gave evidence at the Morin Judicial Inquiry in Canada chaired by Justice Kaufman. Dr Tilstone had been the head of Forensic Services in South Australia. His evidence to the Kaufman Commission was about the new forensic standards which operated in Australia at that time.\(^32\) He pointed out in a section “Writing Expert Witness Statements” that the policies in force not only articulated for the scientists how reports are to be written, it also noted that the scientists should “be prepared to justify any deviation from this to your checking officer or section manager.”\(^33\)

Dr Tilstone testified about the policy in place at the South Australia Forensic Service:

There was a fairly lengthy policy on reporting, and that policy said that reports had to contain five following parts. They had to have a chain of custody which defined the items which were examined, and where they came from. They had to define the tests which were conducted. They had to specify the results of that testing. They had to specify the conclusions which could be drawn from the testing, and they had to specify the limitations which could be placed on those conclusions.

In regard to the conclusions and the limitations, the policy instructed staff to report in exclusionary terms, so the policy was always that findings should be interpreted from the point of view of what they excluded, the things that were not possible as a result of these findings. And the policy also required that they should state the limitations on non-exclusions.

Dr Tilstone testified that the NATA program in Australia contains provisions which speak to the issue of how reports should be written. He said that the importance of these provisions was that they at least alerted the reader to the fact that there were other explanations possible for these findings.

If the scientists had explained that unconfirmed screening test results do not in fact include or exclude anything, then it would be readily seen that they are worthless from an evidential point of view, and the court would have excluded them. The scientists should have known that, as should the


\(^33\) It should be noted that the evidence being given in the Neill-Fraser case, the subject of this report, was based upon her written statement to the prosecutors.
lawyers and the judge. The fact that they found their way into the evidence means that there have been multiple systemic failures.

The Commissioner said that:

A forensic scientist may leave the witness stand concerned that his or her evidence is being misinterpreted or that a misperception has been left about the conclusions which can be drawn or the limitations upon those conclusions. An obligation should be placed on the expert to ensure that these concerns are communicated as soon as possible to Crown or defence counsel. Where communicated to Crown counsel, an immediate disclosure obligation is triggered.\(^{34}\)

The Splatt and Morin Royal Commission Reports make it clear that once erroneous evidence in these types of cases are brought to the attention of the Forensic Science Services, they have an obligation to bring it to the attention of the relevant authorities to ensure that the appropriate action is taken. “The scientist, if truly objective, has an ethical obligation to inform the person affected by the misinterpretation.” “The onus should rest with the expert to correct testimony... It would be preferable that the expert, where practicable, rectify the matter through Crown counsel.”\(^{35}\)

It is that procedure which we recommend being adopted by FSST in Hobart in relation to this case.

The police who have ultimate responsibility for the provision of the forensic services in Tasmania, should discuss the matter urgently with the scientists involved. One hopes that they will confirm that screening tests cannot identify particular substances. They should confirm that glow, sparkle, colour and longevity of responses is not a scientific means by which to identify the cause of any response. Once that is done, a report should be provided to the office of the Director of Public Prosecutions to that effect. Upon receiving that report, a copy of it should be provided to the lawyer acting for Ms Neill-Fraser. It is clear that “an immediate disclosure obligation is triggered”.  

Once that report is received by Ms Neill-Fraser’s lawyer, no doubt an immediate and urgent application will be made to the Attorney-General for a reference of the case back to the Court of Appeal. No doubt the application will be supported by the office of the Director of Public Prosecutions. It should be noted that in the UK at least 20 applications to the Court of Criminal Appeal by a convicted person have not been opposed by the prosecuting authorities. The view is taken that where appealable error has occurred, all of those involved in the administration of justice have a common cause in ensuring that corrective action is taken.

At this point, as mentioned at the outset of this report, the matter moves beyond the adversarial and become a matter of “common cause”.

**LEGAL PRINCIPLES**

I published the following principles in *Losing Their Grip – the case of Henry Keogh* in 2006. It has taken fourteen years and a change to the statutory right of appeal in South Australia to get Mr Keogh’s case back to the appeal court. The appeal will now be heard on 22 September 2014. It is to be hoped that a similar delay will not occur in the case of Ms Neill-Fraser.


\(^{35}\) Ibid.
The new appeal right in South Australia is the first such change to the appeal rights anywhere in Australia in just over 100 years. It should be noted that the current appeal arrangements in Tasmania fail to comply with international human rights obligations, according to the Australian Human Rights Commission.36

The legal references in support of each proposition can be found here:

A conviction is unsafe if it is established that the jury was misled on a relevant issue. [Clearly this applies to the “screening test” evidence in this case].

A conviction is unsafe if non-disclosure of relevant information has deprived an accused (and the advisers) of material relevant to the defence.

The question for consideration is whether the conviction is safe and not whether the accused is guilty. For an appellate court to speculate is not appropriate.

A conviction is unsafe if expert evidence considered to be reliable at the time of the trial is subsequently shown to be unreliable. It remains unsafe irrespective of the force of other circumstantial evidence pointing towards the guilt of the accused. This principle applies to any evidence critical to the prosecution case that is subsequently shown to be unreliable.

Professional witnesses (including police officers and experts) must not permit their quest for a conviction to override their responsibilities to an accused.

If there is material that ought to have been available to the defence which might have caused doubt to be cast about the evidence of a witness, then the fact that evidence was not available at the trial must lead to the conclusion that the conviction was unsafe. [This might be particularly relevant to the DNA evidence.]

This report is completed by Dr Robert Moles 1 September 2014

36 25 November 2011, Inquiry into the Criminal Cases Review Commission Bill (2010), Australian Human Rights Commission Submission to the Legislative Review Committee of South Australia [2.6].